

EDMUND G. BROWN JR.

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

Public Notice No. 12-022

NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT AND NOTICE OF PUBLIC HEARING

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING UNINCORPORATED AREAS OF LOS ANGELES COUNTY, AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH (LOS ANGELES COUNTY MS4 PERMIT) (NPDES PERMIT NO. CAS004001)

NOTICE IS HEREBY GIVEN THAT the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) will hold a public hearing to receive comments and evidence, and consider adoption of, the Draft NPDES Permit for MS4 discharges within the Los Angeles County Flood Control District, including unincorporated areas of the County of Los Angeles, and the incorporated cities therein, except the City of Long Beach (Draft Tentative Order).

The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities therein (Permittees) discharge pollutants from their MS4s, also called storm drain systems. Storm water and non-storm water enter and are conveyed through the MS4 and discharged to surface water bodies of the Los Angeles Region. These discharges are currently regulated under countywide waste discharge requirements contained in Order No. 01-182 adopted by this Board on December 13, 2001, and subsequently amended in 2006, 2007, 2009, and 2011. Order No. 01-182, which serves as an NPDES permit, has expired but remains in effect until the Los Angeles Water Board adopts a new permit. The Los Angeles Water Board therefore proposes to reissue the Los Angeles County MS4 Permit and rescind Order No. 01-182.

The Draft Tentative Order differs significantly from Order No. 01-182 in several respects, including:

- Incorporation of provisions consistent with 33 Total Maximum Daily Loads and implementation requirements.
- · New requirements for hydromodification and low impact development.
- New requirements for monitoring.

This notice sets forth the procedures and processes the Los Angeles Water Board will use at this hearing.

MARIA MEHBANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

I. HEARING DATE AND LOCATION

The Los Angeles Water Board is scheduled to hold a public hearing to consider this matter at its regularly scheduled board meeting on:

Date:	September 6-7, 2012
Time:	9:00 a.m.
Place:	Metropolitan Water District of Southern California 700 North Alameda Street
	Los Angeles, CA 90012

Please check the Board's website (http://www.waterboards.ca.gov/losangeles/) for the most upto-date public hearing location as it is subject to change. If there should not be a quorum on the scheduled date of this hearing, all items will be automatically continued to the next scheduled meeting. A continuance of this item will not automatically extend any deadlines set forth herein.

Any person desiring to receive future public notices regarding this Draft Tentative Order must sign up for the Lyris e-mail list. To sign up for the Lyris list, access the E-mail List Subscription form, check the box for "Storm Water – Los Angeles Co MS4", and fill in the required information. The subscription form is at: http://www.waterboards.ca.gov/resources/email_subscription

II. SCOPE OF HEARING

As this matter concerns reissuance of the Los Angeles County MS4 Permit, parties and interested persons may comment upon any portion of the Draft Tentative Order. However, please be advised that the majority of the requirements in the Draft Tentative Order are existing requirements, which the Permittees have been operating under since 2001, or since amendments to Order No. 01-182. Further, many of the requirements adopted in 2001 in Order No. 01-182, and which have been carried over into the Draft Tentative Order, have already been subject to litigation and upheld by the Los Angeles County Superior Court and/or California Court of Appeal.

Please also be advised that several new requirements in the Draft Tentative Order concern incorporation of provisions that implement Total Maximum Daily Loads (TMDLs). These TMDLs are either duly adopted regulations of the Los Angeles Water Board or TMDLs established by the United States Environmental Protection Agency. The validity of these TMDLs are not an issue before the Los Angeles Water Board in this proceeding. As such, any evidence or argument attempting to challenge the validity of these TMDLs will not be considered or included in the administrative record for this matter. Comments and/or evidence concerning whether and how the Los Angeles Water Board incorporates the TMDL provisions into the Draft Tentative Order are appropriate and within the scope of this proceeding.

III. NATURE OF HEARING

This proceeding will be a formal adjudicatory proceeding pursuant to section 648 *et seq.* of Title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) relating to formal adjudicative hearings does not apply to adjudicative hearings before the Los Angeles Water Board, except as otherwise specified in the above-referenced regulations.

IV. AVAILABILITY OF DOCUMENTS

The Draft Tentative Order, which includes the Tentative Monitoring and Reporting Program and Fact Sheet, the Administrative Record Index, and other information and documents relied upon are posted on the Los Angeles Water Board's website at: http://www.waterboards.ca.gov/losangeles/html/programs/stormwater/lams4.html. These documents are also available for inspection and copying between the hours of 8:00 a.m. and 4:30 p.m. at the following address:

California Regional Water Quality Control Board Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, CA 90013

Arrangements for file review and/or obtaining copies of documents in the Administrative Record may be made by calling the Los Angeles Water Board at (213) 576-6600. Appointments are encouraged so the documents can be readily available upon arrival. Comments and responses to comments and other subsequent relevant documents will be available online as they are generated.

All the materials identified in the Administrative Record Index will be included in the Administrative Record of this proceeding, irrespective of whether individual documents are specifically referenced during the hearing or contained in the agenda packet. However, the entire Administrative Record may not be present at the hearing. Should any parties or interested persons desire Los Angeles Water Board staff to bring to the hearing any particular documents in the Administrative Record they must submit a written or electronic request to the Los Angeles Water Board staff member(s) identified in Section X. below no later than **5:00 pm on August 23, 2012**. The request must identify the documents with enough specificity for Los Angeles Water Board staff to locate them.

V. PARTICIPANTS TO THIS HEARING

Participants in this proceeding are identified as either "Parties" or "Interested Persons." Designation as a Party is not necessary to participate in this proceeding. Both Interested Persons and Parties will have the opportunity to present written and/or oral comments about the reissuance of the Los Angeles County MS4 Permit. Both Interested Persons and Parties may be asked to respond to clarifying questions from the Los Angeles Water Board, staff or others, at the discretion of the Los Angeles Water Board.

A. Interested Persons

Interested persons include any person or organization that is interested in the outcome of the hearing, but who has not been designated as a party. Interested persons may present written and/or oral comments, as provided in Section VI. below, but they may not present evidence. Comments include policy statements and/or arguments about the appropriateness, wisdom, or utility of the proposal before the Los Angeles Water Board. Interested persons are not subject to cross-examination and may not cross-examine witnesses.

B. Parties

Parties are those persons or organizations anticipated to have the greatest interest in the outcome of the hearing. They are generally expected to take a leadership role in presenting any evidence or argument about the nature of the matter under consideration. Parties to the hearing may submit written evidence, summarize their evidence orally at the hearing, or cross-examine other parties' witnesses (if any are called). "Evidence" includes witness testimony, documents, and tangible objects that tend to prove or disprove the existence of an alleged fact. "Relevant evidence" is evidence that relates to any fact in dispute in the proceeding. Parties are subject to cross-examination about any evidence they present.

The following entities are parties to this proceeding:

- 1. Los Angeles County Flood Control District
- 2. County of Los Angeles
- 3. Cities of Agoura Hills, Alhambra, Arcadia, Artesia, Azusa, Baldwin Park, Bell, Bellflower, Bell Gardens, Beverly Hills, Bradbury, Burbank, Calabasas, Carson, Cerritos, Claremont, Commerce, Compton, Covina, Cudahy, Culver City, Diamond Bar, Downey, Duarte, El Monte, El Segundo, Gardena, Glendale, Glendora, Hawaiian Gardens, Hawthorne, Hermosa Beach, Hidden Hills, Huntington Park, Industry, Inglewood, Irwindale, La Canada Flintridge, La Habra Heights, La Mirada, La Puente, La Verne, Lakewood, Lawndale, Lomita, Los Angeles, Lynwood, Malibu, Manhattan Beach, Maywood, Monrovia, Montebello, Monterey Park, Norwalk, Palos Verdes Estates, Paramount, Pasadena, Pico Rivera, Pomona, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Rosemead, San Dimas, San Fernando, San Gabriel, San Marino, Santa Clarita, Santa Fe Springs, Santa Monica, Sierra Madre, Signal Hill, South El Monte, South Gate, South Pasadena, Temple City, Torrance, Walnut, West Covina, West Hollywood, Westlake Village, Whittier, and Vernon

Any other persons or organizations who wish to participate in the hearing as a party shall request party status by submitting a written or electronic request to the Los Angeles Water Board (as provided in Section X. below) no later than **5:00 pm on August 23, 2012**. All requests for designation as a party shall include the name, phone number, and email address of the person who is designated to receive notices about this proceeding. The request shall also include a statement explaining the reasons for their request (e.g., how the issues to be addressed in the hearing and the potential actions by the Los Angeles Water Board affect the person), and a statement explaining why the parties designated above do not adequately represent the person's interest. Determinations will be based on whether their participation as a party will further the development of the issues before the Los Angeles Water Board. Those submitting requests for party status will be notified before the hearing whether the request is granted or denied. All parties will be notified if other parties are designated.

C. Los Angeles Water Board Staff

Los Angeles Water Board staff is not a party to this proceeding. This is a proceeding to consider adoption of a permit, which does not involve investigative, prosecutorial, or advocacy functions. Staff's proposals, recommendations, and their participation in this proceeding exist for the purpose of advising and assisting the Los Angeles Water Board. Likewise, attorneys for the Los Angeles Water Board will advise and assist the Los Angeles Water Board, which includes the board members and its entire staff. Given the nature of this proceeding and the limited facts in dispute, assigning a separate staff to "advocate" on behalf of a particular position would not further the development of the issues before the Los Angeles Water Board.

VI. PUBLIC COMMENTS AND SUBMITTAL OF EVIDENCE

Persons wishing to comment on the Draft Tentative Order, or submit evidence for the Los Angeles Water Board to consider, are invited to submit them in writing. To be evaluated and responded to by Los Angeles Water Board staff, included in the Los Angeles Water Board's agenda binder, and fully considered by the Los Angeles Water Board members in advance of the hearing, all written comments and evidence must be submitted to the Los Angeles Water Board office by 12:00 pm on July 23, 2012. Written comments submitted through email are requested to be transmitted in Microsoft Word format.

Pursuant to section 648.4, Title 23 of the California Code of Regulations, untimely submittal of written comments or evidence will not be allowed or accepted into the Administrative Record without a showing of good cause for the delay, and in no event if any party or the Board would be unduly prejudiced by the late submittal or if staff or the Los Angeles Water Board would not have an adequate opportunity to review, consider, and respond to the comments or evidence.

VII. EX PARTE COMMUNICATIONS PROHIBITED

Parties and interested persons are forbidden from engaging in *ex parte* communications regarding this matter with members of the Los Angeles Water Board. An *ex parte* communication is a communication not authorized in the California Government Code, to a Los Angeles Water Board member from any person, about a pending matter, that occurs in the absence of other parties and without notice and opportunity for the parties to respond. The California Government Code generally prohibits the board members from engaging in *ex parte* communications during permitting, enforcement, or other "quasi-adjudicatory" matters. As a permitting proceeding, Los Angeles Water Board members may not discuss the subject of this hearing with any person, except during the public hearing itself, except in the limited circumstances and manner described in this notice.

VIII. HEARING PROCEDURES

Adjudicative proceedings before the Los Angeles Water Board generally will be conducted in the following order:

Administration of oath to persons who intend to testify Los Angeles Water Board staff presentation Designated parties' presentation Interested persons' comments Questions from the Los Angeles Water Board to parties Questions from the Los Angeles Water Board to Staff Deliberations Los Angeles Water Board decision

While this is a formal administrative proceeding, the Los Angeles Water Board does not generally require the cross examination of witnesses, or other procedures not specified in this notice, that might typically be expected of parties in a courtroom. Each party will be advised after the receipt of public comments, but prior to the date of the hearing, of the amount of time the party will be allocated for its presentations. That decision will be based upon the complexity and the number of issues under consideration, the extent to which the parties have coordinated, the number of parties and interested persons anticipated, and the time available for the hearing. Generally, parties may use their allocated time in any way they see fit, which could, for example, include witness testimony and/or cross examination. The parties should contact the Los Angeles Water Board staff, as provided in Section X. below, no later than **5:00 pm on August 23, 2012** to state how much time they believe is necessary for their presentations. It is the Los Angeles Water Board's intent that reasonable requests be accommodated.

Interested persons are invited to attend the hearing and present oral comments. Oral comments are generally limited to 3 minutes each for their comments, but can vary at the discretion of the Chair, depending on the number of persons wishing to be heard. Parties and interested persons with similar concerns or opinions are encouraged to choose one representative to speak, and are encouraged to coordinate their presentations with each other, and to summarize their written comments. Repetitive comments will not be allowed. The Los Angeles Water Board will include in the Administrative Record written transcriptions of oral testimony or comments that are made at the hearing.

IX. OBJECTIONS TO MANNER OF HEARING

Parties or interested persons with procedural requests different from or outside of the scope of this notice should contact the Los Angeles Water Board staff member identified in Section X. below no later than **5:00 pm on August 23, 2012**. The Los Angeles Water Board will endeavor to accommodate reasonable requests.

Objections to: (a) any procedure to be used or not used during the hearing, (b) any document or evidence in the administrative record, or (c) any other matter set forth in this notice, must be submitted in writing and received by the Los Angeles Water Board staff member identified in Section X. below no later than **5:00 pm on August 23, 2012**. Any objections related to the amount of time allocated for parties' presentations must be submitted within two business days of notice thereof.

Untimely objections will be deemed waived. Procedural objections about the matters contained in this notice will be addressed prior to, and will not be entertained at, the hearing. Further, except as otherwise stipulated, any procedure not specified in this hearing notice will be deemed waived pursuant to section 648(d) of Title 23 of the California Code of Regulations, unless a timely objection is filed.

X. LOS ANGELES WATER BOARD STAFF CONTACTS

Any communications with the Los Angeles Water Board prior to the hearing should be directed to:

Mr. Ivar Ridgeway 320 W. 4th Street, Suite 200 Los Angeles, CA 90013 (213) 620-2150 iridgeway@waterboards.ca.gov

Please submit electronic comments to: LAMS42012@waterboards.ca.gov.

Date: June 6, 2012

LYRIS MAILING

LIST NAME:

DATE MAILED: DATEJOINED EMAILADDR 2/2/2011 12:04 ADRIEN236@VLPRODUCE.COM 6/22/2010 11:57 AEMiller@waterboards.ca.gov 6/1/2012 8:52 ALEJOCARRILLO@SBCGLOBAL.NET 3/27/2012 13:25 Berry.Ueoka@EverestConsultants.com 3/22/2012 15:22 BryantA@lwa.com 11/15/2010 7:46 CaliforniaWaterTechnologies@gmail.com 7/6/2009 13:38 City manager@ci.glendora.ca.us 11/16/2011 7:58 DLiu@DiamondBarCA.Gov 6/11/2011 22:09 Daniel.Lee@Arcadis-us.com 2/22/2010 18:03 Dave@Bubalo.com 5/2/2011 6:54 Debbie.Neev@gmail.com 7/6/2009 13:58 EKiepke@WILLDAN.com 7/6/2009 13:21 FredLatham@santafesprings.org 10/5/2010 11:14 Gerhardt.Hubner@ventura.org 3/22/2010 15:01 Hamid.Tadayon@lacity.org 4/9/2012 9:53 JOCheung@waterboards.ca.gov 7/6/2009 13:07 James.Destefano@ci.diamond-bar.ca.us 1/19/2010 11:06 Jeremy.Bock@Kiewit.com 3/7/2012 16:27 Jim@CuratingLA.com 7/6/2009 13:35 John.Beshay@westcovina.org 7/28/2011 16:10 Joyntventr@aol.com 8/29/2011 14:09 Julie Carver@ci.pomona.ca.us 7/6/2009 13:53 Kaden.Young@culvercity.org 11/16/2011 8:45 LLanger@localgovlaw.com 4/5/2011 9:34 Leroy.Richards@msh.dmh.ca.gov 8/25/2010 13:32 Lynn@MLMENG.com 11/16/2011 8:39 NOENEGRETE@SANTAFESPRINGS.ORG 6/8/2010 15:11 Nels@stemmdevelopment.com 12/29/2011 11:05 Ppeuron@forestlawn.com 11/16/2011 8:43 RYee@DiamondBarCA.Gov 10/22/2010 15:23 Ramon@calfran.net 7/6/2009 13:51 Rhughes@WILLDAN.com 4/25/2011 15:19 Robert.Vega@lacity.org 7/6/2009 13:23 Shannon.Yauchzee@westcovina.org 7/6/2009 13:49 Skennedy@enfact.net 7/6/2009 13:55 TLANGE@santa-clarita.com 11/7/2011 13:43 Tom.Anderson@bodycote.com 3/29/2012 10:34 aazimi@azimipearsallinc.com 3/2/2012 14:56 acallotdavis@rbf.com 6/1/2012 12:23 achastain@sfwater.org 2/16/2012 14:54 aclark@calwater.com 9/9/2010 15:25 acruz@ci.burbank.ca.us 10/22/2010 11:47 acton661@aol.com 7/6/2009 13:19 adahlerbruch@cityofrh.net 12/12/2011 10:54 adanortega@me.com 11/9/2010 16:14 adavis@rbf.com

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Jeff Harris

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heather kline John Hunter Cameron McCullor Kathy L. Carrillo Claudia Arellano Caroline Koch Craig Bradshaw Chris Cash Cathy Chang **Cindy Collins** Chino Consunji Clay Curtin Christopher M. Deleau Christian Di Renzo Charles Emig **Charles Evans** Corey Harpole Cathy Z. Hollomon Chris Rillamas Chris Allen chris minton Cherie L. Paglia Chris Lapaz Candice Lee Carolyn Lehr **Christopher Lopez** clarence c mansell jr **Claudine Meeker** J. Roger Collins Mike Conkle Carlos G. Reyes **Cory Roberts Cory Roberts** Cesar Roldan Carlos D. Santos Catherine Tyrrell Carolyn Webster Chuck White Catherine Yanda Cynthia Gabaldon **Damian Reyes** Dan Florescu Danielle Sakai Daniel Apt David Bufo David D. Boyer Deborah Chankin dwight Clark

7/6/2009 13:08 ddavies@ci.glendora.ca.us 11/16/2011 9:01 ddolphin@cityofalhambra.org 8/21/2009 14:15 dduncan@fire.lacounty.gov 2/1/2011 6:50 dduncan@santa-clarita.com 11/9/2010 18:17 deana@aguabio.us 11/16/2011 8:40 denise reyna@ci.pomona.ca.us 11/16/2011 8:47 dgilbertson@rkagroup.com 5/9/2012 8:28 dgould@stormwaterusa.com 1/25/2011 18:02 dgrilley@sgch.org 5/31/2012 14:03 dguillory@mwdh2o.com 12/15/2009 14:34 diane@plas-tal.com 1/24/2011 14:53 dick.hogan@semco.com 11/8/2011 13:57 dick@pwenvironmental.com 5/29/2012 8:09 dion.coluso@lacity.org 7/6/2009 13:10 dkeesey@ci.la-verne.ca.us 9/27/2010 10:39 dklinger@pih.net 11/9/2010 15:23 dlippman@lvmwd.com 7/6/2009 13:48 dlopez@baldwinpark.com 7/6/2009 13:34 dlopez@pico-rivera.org 6/15/2010 21:55 dmak@newhall.com 10/19/2010 8:33 dmorone@gdandb.com 7/8/2010 10:07 dn@davidnahai.com 7/6/2009 13:39 donjensen@santafesprings.org 7/6/2009 13:47 dougp@ci.rolling-hills-estates.ca.us 7/6/2009 13:57 dpankau@cityofcalabasas.com 11/9/2010 15:47 dparkinson@geosyntec.com 7/6/2009 13:24 dpelser@cityofwhittier.org 6/15/2011 16:54 drew.beck@psomas.com 11/16/2011 8:01 drix@cityofpasadena.net 7/6/2009 13:49 drynn@ci.burbank.ca.us 4/23/2012 17:22 dsmith@waterboards.ca.gov 8/18/2009 16:48 dtupa@rickengineering.com 10/13/2011 11:38 dustin.bambic@tetratech.com 10/12/2010 11:17 dvolkmann@hfinc.com 11/10/2010 7:00 dwall@cityofwhittier.org 1/4/2010 16:20 dxjones@sempra.com 11/9/2010 15:18 dxjones@semprautilities.com 7/6/2009 13:22 eaguilar@ci.sierra-madre.ca.us 11/9/2010 15:33 ecamster@yahoo.com 11/9/2010 16:40 ecomom2008@gmail.com 4/7/2010 16:35 ed@e2managetech.com 12/21/2011 10:21 eddie isaacs@dot.ca.gov 7/6/2009 13:09 ehitti@lcf.ca.gov 4/20/2010 16:17 einnes@dpw.lacounty.gov 9/22/2011 16:57 elaine.jeng@redondo.org 7/6/2009 13:41 emansfield@aei-casc.com 7/6/2009 13:40 emarquez@hgcity.org

Dave Davies David Dolphin Dan Duncan Dan Duncan DeAna Vitela-Havashi Denise Reyna David Gilbertson Derek A. Gould Daren Grilley Daniel Guillory **Diane Sercu** Richard C. Hogan dick botke Dion Coluso Daniel Keesey Dave Klinger David Lopez Debbie Lopez Dennis Mak Danielle K. Morone David Nahai Donald K. Jensen Douglas Prichard Daniel Pankau David Parkinson David Pelser Drew Beck Daniel Rix Daniel Rynn **Debbie Smith** Daniel Tupa **Dustin Bambic Deering Volkmann** Daniel Wall Debran Reed Elaine Aguilar Camie Pickett Chris Rowe Edward Rogan Eddie Isaacs

Edward Hitti

Emiko Innes

Elaine Jeng

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ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING THE COUNTY OF LOS ANGELES, AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH

The municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach (hereinafter referred to separately as Permittees and jointly as the Dischargers) from the discharge points identified below are subject to waste discharge requirements as set forth in this Order.

I. FACILITY INFORMATION

Table 1. Discharger Information

DischargersThe Los Angeles County Flood Control District, the County of Los Angeles 84 incorporated cities within the Los Angeles County Flood Control District, the exception of the City of Long Beach (See Table 4)			
Name of Facility	Municipal Separate Storm Sewer Systems (MS4s) within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach		
Facility Address	Various (see Table 2)		
Facility Address	Various (see Table 2)		
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) have classified the Greater Los Angeles County MS4 as a large municipal separate storm sewer system (MS4) pursuant to 40 CFR section 122.26(b)(4) and a major facility pursuant to 40 CFR section 122.2.			

Table 2. Facility Information

Permittee (WDID)	Contact Information	
Agoura Hills (4 <i>B190147001</i>)	Mailing Address	30001 Ladyface Court Agoura Hills, CA 91301

Permittee	Contact Information					
(WDID)						
	Facility Contact, Title,	Ken Berkman, City Engineer				
	and E-mail	kberkman@agoura-hills.ca.us				
	Mailing Address	111 South First Street				
Alhambra		Alhambra, CA 91801-3796				
(4B190148001)	Facility contact, title,	David Dolphin				
	and E-mail	ddolphin@cityofalhambra.org				
Arcadia	Mailing Address	P.O. Box 60021				
(4B190149001)		Arcadia, CA 91066-6021				
(12100110001)	Facility Contact, Title,	Susannah Turney, Environmental Services Officer				
	and E-mail	vhevener@ci.arcadia.ca.us				
	Mailing Address	18747 Clarkdale Avenue				
Artesia		Artesia, CA 90701-5899				
(4B190150001)	Facility Contact, Title,	Maria Dadian, Director of Public Works				
	and E-mail	mdadian@cityofartesia.ci.us				
	Mailing Address	213 East Foothill Boulevard				
Azusa		Azusa, CA 91702				
(4B190151001)	Facility Contact, Title,	Carl Hassel, City Engineer				
	and E-mail	chassel@ci.azusa.ca.us				
	Mailing Address	14403 East Pacific Avenue				
Baldwin Park		Baldwin Park, CA 91706-4297				
(4B190152001)	Facility Contact, Title,	David Lopez, Associate Engineer				
	and E-mail	dlopez@baldwinpark.com				
	Mailing Address	6330 Pine Avenue				
Bell		Bell, CA 90201-1291				
(4B190153001)	Facility Contact, Title,	Terri Rodrigue, City Engineer				
	and E-mail	trodrigue@cityofbell.org				
	Mailing Address	7100 South Garfield Avenue				
Bell Gardens	.	Bell Gardens, CA 90201-3293				
(4B190139002)	Facility contact, title,	John Oropeza, Director of Public Works (562) 806-7700				
	and Phone	16600 Civic Center Drive				
Pollflower	Mailing Address					
Bellflower	Facility Contact, Title,	Bellflower, CA 90706-5494				
(4B190154001)	and E-mail	Bernie Iniguez, Management Analyst biniguez@bellflower.org				
	Mailing Address	455 North Rexford Drive				
Beverly Hills	Maining Address	Beverly Hills, CA 90210				
(4B190132002)	Facility Contact, Title,	Vincent Chee, Project Civil Engineer				
(40100102002)	and E-mail	kgettler@beverlyhills.org				
	Mailing Address	600 Winston Avenue				
Bradbury		Bradbury, CA 91010-1199				
(4B190155001)	Facility contact, title,	Elroy Kiepke, City Engineer				
(======================================	and E-mail	mkeith@cityofbradbury.org				
	Mailing Address	P.O. Box 6459				
Burbank		Burbank, CA 91510				
(4B190101002)	Facility contact, title,	Bonnie Teaford, Public Works Director				
(======================================	and E-mail	bteaford@ci.burbank.ca.us				
	Mailing Address	26135 Mureau Road				
Calabasas		Calabasas, CA 91302-3172				
(4B190157001)	Facility contact, title,	Alex Farassati, ESM				
(= = = = = = = = = = = = = = = = = = =	and E-mail	afarassati@cityofcalabasas.com				
Carson	Mailing Address	P.O. Box 6234				
(4B190158001)		Carson, CA 90745				
(1					

Permittee (WDID)	Contact Information					
, ,	Facility contact, title,	Patricia Elkins, Building Construction Manager				
	and E-mail	pelkins@carson.ca.us				
	Mailing Address	P.O. Box 3130				
Cerritos		Cerritos, CA 90703-3130				
(4B190159001)	Facility Contact, Title,	Mike O'Grady, Environmental Services				
	and E-mail	mo'grady@cerritos.us				
	Mailing Address	207 Harvard Avenue				
Claremont		Claremont, CA 91711-4719				
(4B190160001)	Facility Contact, Title,	Craig Bradshaw, City Engineer				
	and E-mail	cbradshaw@ci.claremont.ca.us				
	Mailing Address	2535 Commerce Way				
Commerce		Commerce, CA 90040-1487				
(4B190161001)	Facility contact, title,	Gina Nila				
	and E-mail	gnila@ci.commerce.ca.us				
	Mailing Address	205 South Willowbrook Avenue				
Compton		Compton, CA 90220-3190				
(4B190162001)	Facility contact, title,	Hien Nguyen, Assistant City Engineer				
	and Phone	310-761-1476				
	Mailing Address	125 East College Street				
Covina		Covina, CA 91723-2199				
(4B190163001)	Facility Contact, Title,	Charles Redden, Environmental Services Manager				
	and E-mail	vcastro@covinaca.gov				
	Mailing Address	P.O. Box 1007				
Cudahy		Cudahy, CA 90201-6097				
(4B190164001)	Facility contact, title,	Hector Rodriguez, City Manager				
	and E-mail	hrodriguez@cityofcudahy.ca.us				
Culver City	Mailing Address	9770 Culver Boulevard				
(<i>4B190165001</i>)	Facility contact, title,	Culver City, CA 90232-0507 Damian Skinner, Manager				
(40190103001)	and Phone	310-253-6421				
	Mailing Address	21825 East Copley Drive				
Diamond Bar		Diamond Bar, CA 91765-4177				
(<i>4B190166001</i>)	Facility Contact, Title,	David Liu, Director of Public Works				
(and E-mail	dliu@diamondbarca.gov				
	Mailing Address	P.O. Box 7016				
Downey		Downey, CA 90241-7016				
(4B190167001)	Facility contact, title,	Yvonne Blumberg				
	and E-mail	yblumberg@downeyca.org				
	Mailing Address	1600 Huntington Drive				
Duarte	-	Duarte, CA 91010-2592				
(4B190168001)	Facility contact, title,	Steve Esbenshades, Engineering Division Manager				
	and Phone	(626) 357-7931 ext. 233				
	Mailing Address	P.O. Box 6008				
El Monte		El Monte, CA 91731				
(4B190169001)	Facility contact, title,	James A Enriquez, Director of Public Works				
	and Phone	(626) 580-2058				
	Mailing Address	350 Main Street				
El Segundo		El Segundo, CA 90245-3895				
(4B190170001)	Facility Contact, Title,	Ron Fajardo, Wastewater Supervisor				
Gardena	Mailing Address	P.O. Box 47003				
(4B190118002)		Gardena, CA 90247-3778				

Permittee (WDID)	Contact Information	
(11010)	Facility Contact, Title,	Ron Jackson, Building Maintenance Supervisor
	and E-mail	jfelix@ci.gardena.ci.us
	Mailing Address	Engineering Section, 633 East Broadway, Room 209
Glendale		Glendale, CA 91206-4308
(4B190171001)	Facility contact, title,	Maurice Oillataguerre, Senior Environmental Program
(40130171001)	and E-mail	Scientist
		moillataguerre@ci.glendale.ca.us
	Mailing Address	116 East Foothill Boulevard
Glendora		Glendora, CA 91741
(4B190172001)	Facility Contact, Title,	Dave Davies, Deputy Director of Public Works
	and E-mail	ddavies@ci.glendora.ca.us
Hawaiian	Mailing Address	21815 Pioneer Boulevard
Gardens		Hawaiian Gardens, CA 90716
(4B190173001)	Facility Contact, Title,	Joseph Colombo, Director of Community Development
. ,	and E-mail	jcolombo@ghcity.org 4455 West 126 th Street
	Mailing Address	
Hawthorne	Facility Contact, Title,	Hawthorne, CA 90250-4482 Arnold Shadbehr, Chief General Service and Public Works
(4B190174001)	and E-mail	Arnold Shadbehr, Chief General Service and Public Works
		ashadbehr@cityofhawthorne.org
	Mailing Address	1315 Valley Drive
Hermosa	Maning Address	Hermosa Beach, CA 90254-3884
Beach	Facility Contact, Title,	Homayoun Behboodi, Associate Engineer
(4B190175001)	and E-mail	hbehboodi@hermosabch.org
(
	Mailing Address	6165 Spring Valley Road
Hidden Hills		Hidden Hills, CA 91302
(4B190176001)	Facility contact, title,	Kimberly Colberts, Environmental Coordinator
	and Phone	(310) 257-2004
Huntington	Mailing Address	6550 Miles Avenue
Park		Huntington Park, CA 90255
(4B190177001)	Facility contact, title, and Phone	Craig Melich, City Engineer and City Official 323-584-6253
· · ·	Mailing Address	P.O. Box 3366
Industry	3	Industry, CA 91744-3995
(4B190178001)	Facility Contact, Title,	Mike Nagaoka, Director of Public Safety
	Mailing Address	P.O. Box 6500
Inglewood		Inglewood, CA 90301-1750
(4B190179001)	Facility Contact, Title,	Jim Davis, Administrative Analyst
	and E-mail	eparker@cityofinglewood.org
	Mailing Address	5050 North Irwindale Avenue
Irwindale		Irwindale, CA 91706
(4B190180001)	Facility Contact, Title,	Kwok Tam, Director of Public Works
	and E-mail	ktam@ci.irwindale.ca.us
La Canada	Mailing Address	1327 Foothill Boulevard
Flintridge		La Canada Flintridge, CA 91011-2137
(4B190181001)	Facility contact, title,	Edward G. Hitti, Director of Public Works
- /	and E-mail Mailing Address	ehitti@lcf.ca.gov
La Habra	1245 North Hacienda Boulevard	
Heights	Essility Contact Title	La Habra Heights, CA 90631-2570
(4B190182001)	Facility Contact, Title, and E-mail	Shauna Clark, City Manager
-	anu E-man	shaunac@lhhcity.org

Permittee	Contact Information				
(WDID)					
	Mailing Address	13700 La Mirada Boulevard			
La Mirada		La Mirada, CA 90638-0828			
(4B190183001)	Facility Contact, Title,	Steve Forster, Public Works Director			
	and E-mail	sforster@cityoflamirada.org			
	Mailing Address	15900 East Marin Street			
La Puente		La Puente, CA 91744-4788			
(4B190184001)	Facility Contact, Title,	John DiMario, Director of Development Services			
	and E-mail	jdimario@lapuente.org			
	Mailing Address	3660 "D" Street			
La Verne		La Verne, CA 91750-3599			
(4B190185001)	Facility Contact, Title,	Daniel Keesey, Director of Public Works			
	and E-mail	dkeesey@ci.la-verne.ca.us			
	Mailing Address	P.O. Box 158			
Lakewood		Lakewood, CA 90714-0158			
(4B190186001)	Facility contact, title,	Konya Vivanti			
	and E-mail	kvivanti@lakewoodcity.org			
Lawndale	Mailing Address	14717 Burin Avenue			
(4B190127002)		Lawndale, CA 90260			
(12100121002)	Facility Contact, Title,	Marlene Miyoshi, Senior Administrative Analyst			
	Mailing Address	P.O. Box 339			
Lomita		Lomita, CA 90717-0098			
(4B190187001)	Facility Contact, Title,	Tom A. Odom, City Administrator			
	and E-mail	d.tomita@lomitacity.com			
	Mailing Address	1149 S. Broadway, 10 th Floor			
Los Angeles		Los Angeles, CA 90015			
(4B190188001)	Facility contact, title,	Shahram Kharaghani, Program Manager			
	and Phone	(213) 485-0587			
	Mailing Address	11330 Bullis Road			
Lynwood	· · · · · · · · · · · · · · · · · · ·	Lynwood, CA 90262-3693			
(4B190189001)	Facility contact, title,	Josef Kekula			
	and Phone	310-603-0220 ext. 287			
Malibu	Mailing Address	23815 Stuart Ranch Road			
Malibu (<i>4B190190001</i>)	Facility Contact, Title,	Malibu, CA 90265-4861			
(40190190001)	and E-mail	Jennifer Voccola, Environmental Program Analyst jvoccola@malibucity.org			
	Mailing Address	1400 Highland Avenue			
Manhattan	Manny Autress	Manhattan Beach, CA 90266-4795			
Beach	Facility Contact, Title,	Brian Wright, Water Supervisor			
(<i>4B190191001</i>)	and Email	bwright@citymb.info			
(owngriteoutymo.into			
	Mailing Address	4319 East Slauson Avenue			
Maywood		Maywood, CA 90270-2897			
(4B190192001)	Facility contact, title,	Andre Dupret, Project Manager			
(= = = = = = = = = = = = = = = = = = =	and Phone	323-562-5721			
	Mailing Address	415 South Ivy Avenue			
Monrovia		Monrovia, CA 91016-2888			
(4B190193001)	Facility contact, title,	Heather Maloney			
, , , , , , , , , , , , , , , , , , , ,	and E-mail	hmaloney@ci.monrovia.ca.gov			
	Mailing Address	1600 West Beverly Boulevard			
Montebello		Montebello, CA 90640-3970			
(4B190194001)	Facility contact, title,	Cory Roberts			
(and Phone	<u>croberts@aaeinc.com</u>			

Permittee	Contact Information					
(WDID)						
	Mailing Address	320 West Newmark Avenue				
Monterey Park		Monterey Park, CA 91754-2896				
(4B190195001)	Facility contact, title,	Amy Ho, 626-307-1383				
(and E-mail	amho@montereypark.ca.gov				
		John Hunter (Consultant) at jhunter@jhla.net				
Norwalk	Mailing Address	P.O. Box 1030				
(4B190196001)		Norwalk, CA 90651-1030				
(Facility Contact, Title,	Chino Consunji, City Engineer				
Palos Verdes	Mailing Address	340 Palos Verdes Drive West				
Estates		Palos Verdes Estates, CA 90274				
(4B190197001)	Facility Contact, Title,	Allan Rigg, Director of Public Works				
(and E-mail	arigg@pvestates.org				
	Mailing Address	16400 Colorado Avenue				
Paramount		Paramount, CA 90723-5091				
(4B190198001)	Facility contact, title,	Chris Cash, Utility and Infrastructure Assistant Director				
	and E-mail	ccash@paramountcity,org				
	Mailing Address	P.O. Box 7115				
Pasadena		Pasadena, CA 91109-7215				
(4B190199001)	Facility contact, title,	Stephen Walker				
	and E-mail	swalker@cityofpasadena.net				
	Mailing Address	P.O. Box 1016				
Pico Rivera		Pico Rivera, CA 90660-1016				
(4B190200001)	Facility contact, title,	Art Cervantes, Director of Public Works				
(40100200001)	and E-mail	acervantes@pico-rivera.org				
	Mailing Address	P.O. Box 660				
Pomona		Pomona, CA 91769-0660				
(4B190145003)	Facility Contact, Title,	Kimberly Colbert, Environmental Compliance Consultant				
	and E-mail	kimberly_colbert@ci.pomona.ca.us				
Rancho Palos	Mailing Address	30940 Hawthorne Boulevard				
Verdes		Rancho Palos Verdes, CA 90275				
(4B190201001)	Facility Contact, Title,	Ray Holland, Interim Public Works Director				
(-=	and E-mail	clehr@rpv.com				
Redondo	Mailing Address	P.O. Box 270				
		Dedende Beech CA 00077 0070				
Beach		Redondo Beach, CA 90277-0270				
Beach (4B190143002)	Facility Contact, Title,	Mike Shay, Principal Civil Engineer				
Beach (4B190143002)	and E-mail	Mike Shay, Principal Civil Engineer mshay@redondo.org				
(4B190143002)		Mike Shay, Principal Civil Engineer <u>mshay@redondo.org</u> 2 Portuguese Bend Road				
(<i>4B190143002</i>) Rolling Hills	and E-mail Mailing Address	Mike Shay, Principal Civil Engineer <u>mshay@redondo.org</u> 2 Portuguese Bend Road Rolling Hills, CA 90274-5199				
(4B190143002)	and E-mail Mailing Address Facility Contact, Title,	Mike Shay, Principal Civil Engineer mshay@redondo.org 2 Portuguese Bend Road Rolling Hills, CA 90274-5199 Greg Grammer, Assistant to the City Manager				
(<i>4B190143002</i>) Rolling Hills	and E-mail Mailing Address Facility Contact, Title, and E-mail	Mike Shay, Principal Civil Engineer mshay@redondo.org 2 Portuguese Bend Road Rolling Hills, CA 90274-5199 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov				
(4B190143002) Rolling Hills (4B190202001)	and E-mail Mailing Address Facility Contact, Title,	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive North				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title,	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title, and E-mail	Mike Shay, Principal Civil Engineer mshay@redondo.org 2 Portuguese Bend Road Rolling Hills, CA 90274-5199 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates (4B190203001)	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title,	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov8838 East Valley Boulevard				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates (4B190203001) Rosemead	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov8838 East Valley Boulevard Rosemead, CA 91770-1787				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates (4B190203001)	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility contact, title,	Mike Shay, Principal Civil Engineer mshay@redondo.org 2 Portuguese Bend Road Rolling Hills, CA 90274-5199 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 8838 East Valley Boulevard Rosemead, CA 91770-1787 Chris Marcarello, Director of PW				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates (4B190203001) Rosemead (4B190204001)	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility contact, title, and Phone	Mike Shay, Principal Civil Engineer mshay@redondo.org2 Portuguese Bend RoadRolling Hills, CA 90274-5199Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov4045 Palos Verdes Drive NorthRolling Hills Estates, CA 90274Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov8838 East Valley BoulevardRosemead, CA 91770-1787Chris Marcarello, Director of PW 626-569-2118				
(4B190143002) Rolling Hills (4B190202001) Rolling Hills Estates (4B190203001) Rosemead	and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility Contact, Title, and E-mail Mailing Address Facility contact, title,	Mike Shay, Principal Civil Engineer mshay@redondo.org 2 Portuguese Bend Road Rolling Hills, CA 90274-5199 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 4045 Palos Verdes Drive North Rolling Hills Estates, CA 90274 Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov 8838 East Valley Boulevard Rosemead, CA 91770-1787 Chris Marcarello, Director of PW				

Permittee (WDID)	Contact Information	'n		
	Facility Contact, Title, and E-mail	Latoya Cyrus, Environmental Services Coordinator, lcyrus@ci.san-dimas.ca.us		
	Mailing Address	117 Macneil Street		
San Fernando		San Fernando, CA 91340		
(4B190206001)	Facility contact, title,	Ron Ruiz, Director of Public Works		
	and E-mail	rruiz@sfcity.org		
	Mailing Address	425 South Mission Drive		
San Gabriel		San Gabriel, CA 91775		
(4B190207001)	Facility contact, title,	Daren T. Grilley, City Engineer		
	and Phone	626-308-2806 ext. 4631		
	Mailing Address	2200 Huntington Drive		
San Marino		San Marino, CA 91108-2691		
(4B190208001)	Facility contact, title,	Chuck Richie, Director of Parks and Public Works		
	and E-mail	crichie@cityofsanmarino.org		
	Mailing Address	23920 West Valencia Boulevard, Suite 300		
Santa Clarita		Santa Clarita, CA 91355		
(4B190117001)	Facility contact, title, and Phone	Travis Lange, Environmental Services Manager 661-255-4337		
Conto Fo	Mailing Address	P.O. Box 2120		
Santa Fe	-	Santa Fe Springs, CA 90670-2120		
Springs (<i>4B190108003</i>)	Facility Contact, Title,	Sarina Morales-Choate, Civil Engineer Assistant		
(46190100003)	and E-mail	smorales-choate@santafesprings.org		
	Mailing Address	1685 Main Street		
Santa Monica	_	Santa Monica, CA 90401-3295		
(4B190122002)	Facility Contact, Title,	Neal Shapiro, Urban Runoff Coordinator		
. ,	and E-mail	nshapiro@smgov.net		
	Mailing Address	232 West Sierra Madre Boulevard		
Sierra Madre	-	Sierra Madre, CA 91024-2312		
(4B190209001)	Facility contact, title,	James Carlson, Management Analyst		
	and phone	626-355-7135 ext. 803		
	Mailing Address	2175 Cherry Avenue		
Signal Hill		Signal Hill, CA 90755		
(4B190210001)	Facility contact, title,	John Hunter 562-802-7880		
	and Phone	jhunter@jlha.net		
South El	Mailing Address	1415 North Santa Anita Avenue		
Monte		South El Monte, CA 91733-3389		
(4B190211001)	Facility contact, title,	Anthony Ybarra, City Manager		
(and Phone	626-579-6540		
	Mailing Address	8650 California Avenue		
		South Gate, CA 90280		
South Gate	Facility contact, title,	John Hunter 562-802-7880		
(4B190212001)	and E-mail	jhunter@jlha.net		
(,				
	Mailing Address	1414 Mission Street		
South		South Pasadena, CA 91030-3298		
Pasadena	Facility contact, title,	John Hunter 562-802-7880		
(4B190213001)	and E-mail	jhunter@jlha.net		
Temple City	Mailing Address	9701 Las Tunas Drive		
(4B190214001) 9701 Las Turias Drive Temple City, CA 91780-2249				

Permittee (WDID)	Contact Information				
	Facility contact, title, and Phone	Joe Lambert at 626-285-2171 or John Hunter 562-802-7880			
		jhunter@jlha.net			
	Mailing Address	3031 Torrance Boulevard			
Torrance		Torrance, CA 90503-5059			
(4B190215001)	Facility Contact, Title, and Phone	Leslie Cortez, Senior Administrative Assistant			
	Mailing Address	4305 Santa Fe Avenue			
Vernon		Vernon, CA 90058-1786			
(4B190216001)	Facility contact, title,	Claudia Arellano			
	and Phone	323-583-8811			
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	Mailing Address	P.O. Box 1440			
West Covina	-	West Covina, CA 91793-1440			
(4B190218001)	Facility Contact, Title,	Samuel Gutierrez, Engineering Technician			
	and E-mail	sam.gutierrez@westcovina.org			
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	-	West Hollywood, CA 90069-4314			
Hollywood	Facility Contact, Title,	Jan Harmon, Environmental Services Specialist			
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Weetlelve	Mailing Address	31200 Oak Crest Drive			
Westlake	-	Westlake Village, CA 91361			
Village	Facility Contact, Title,	Roxanne Hughes, Stormwater Program Coordinator			
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	Mailing Address	13230 Penn Street			
Whittier	-	Whittier, CA 90602-1772			
(4B190221001)	Facility Contact, Title,	David Mochizuki, Director of Public Works			
. , , , , , , , , , , , , , , , , , , ,	and E-mail	dmochizuki@cityofwhittier.org			
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County of Los	Ũ	Alhambra, CA 91803			
Angeles	Facility contact, title,	Terri Grant, Division Engineer			
(4B190107099)	and Phone	626-458-4309			
Los Angeles	Mailing Address	900 South Fremont Avenue			
County Flood		Alhambra, CA 91803			
		Terri Grant, Division Engineer			
District (4B190107101)	and Phone	626-458-4309			

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
All Municipal Separate Storm Sewer System discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Storm Water and Non- Storm Water	Numerous	Numerous	Surface waters identified in Tables 2-1, 2-1a, 2-3, and 2- 4, and Appendix 1, Table 1 of the Water Quality Control Plan - Los Angeles Region (Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties), and other unidentified tributaries to these surface waters within the following Watershed Management Areas: (1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed; (4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Area; (6) San Gabriel River Watershed; and (7) Santa Ana River Watershed. ¹

Table 4. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, Los Angeles Region on:	<adoption date=""></adoption>
This Order becomes effective on:	<effective date=""></effective>
This Order expires on:	<expiration date=""></expiration>
In accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations and Title 40, Part 122 of the Code of Federal Regulations, each Discharger shall file a Report of Waste Discharge as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date above

¹ Note that the Santa Ana River Watershed lies primarily within the boundaries of the Santa Ana Regional Water Quality Control Board. However, a portion of the Chino Basin subwatershed lies within the jurisdictions of Pomona and Claremont in Los Angeles County. The primary receiving water within the Los Angeles County portion of the Chino Basin subwatershed is San Antonio Creek.

In accordance with section 2235.4 of Title 23 of the California Code of Regulations, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits are complied with. Accordingly, if a new order is not adopted by the expiration date above, then the Permittees shall continue to implement the requirements of this Order until a new one is adopted.

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on <Adoption Date>.

Samuel Unger, Executive Officer

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II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) finds:

A. Nature of Discharges and Sources of Pollutants

Storm water and non-storm water discharges consist of surface runoff generated from various land uses, which are conveyed via the municipal separate storm sewer system and ultimately discharged into surface waters throughout the region. Discharges of storm water and non-storm water from the Los Angeles County Municipal Separate Storm Sewer System (MS4) convey pollutants to surface waters throughout the Los Angeles Region. The primary pollutants of concern in these discharges, as identified by the Los Angeles County Flood Control District Integrated Receiving Water Impacts Report (1994-2000), are indicator bacteria, nutrients, total dissolved solids, turbidity, total suspended solids, total aluminum, dissolved cadmium, copper, lead, total mercury, nickel, zinc, cyanide, bis(2-ethylhexyl)phthalate, polycyclic aromatic hydrocarbons (PAHs), diazinon, and chlorpyrifos. Aquatic toxicity, particularly during wet weather, is also a concern based on a review of Annual Monitoring Reports from 2005-10. Storm water and non-storm water discharges of debris and trash are also a pervasive water quality problem in the Los Angeles Region.

Pollutants in storm water and non-storm water have damaging effects on both human health and aquatic ecosystems. Water quality assessments conducted by the Regional Water Board have identified impairment of beneficial uses of water bodies in the Los Angeles Region caused or contributed to by pollutant loading from municipal storm water and non-storm water discharges. As a result of these impairments, there are beach postings and closures, fish consumption advisories, local and global ecosystem and aesthetic impacts from trash and debris, reduced habitat for threatened and endangered species, among others. The Regional Water Board and USEPA have established 33 total maximum daily loads (TMDLs) that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments.

B. Permit History

Prior to the issuance of this Order, Regional Water Board Order No. 01-182 served as the NPDES Permit for MS4 storm water and non-storm water discharges within the County of Los Angeles. The requirements of Order No. 01-182 applied to the Los Angeles County Flood Control District, the unincorporated areas of Los Angeles County under County jurisdiction, and 84 Cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach. The first county-wide MS4 permit for the County of Los Angeles and the incorporated areas therein was Order No. 90-079, adopted by the Regional Water Board on June 18, 1990.

Under Order No. 01-182, the Los Angeles County Flood Control District was designated the Principal Permittee, and the County of Los Angeles and 84 incorporated Cities were each designated Permittees. The Principal Permittee coordinated and facilitated activities necessary to comply with the requirements of Order No. 01-182, but was not responsible for ensuring compliance of any of the other Permittees. The designation of a Principal Permittee has not been carried over from Order No. 01-182.

Order No. 01-182 was subsequently amended by the Regional Water Board on September 14, 2006 by Order No. R4-2006-0074 to incorporate provisions consistent with the assumptions and requirements of the Santa Monica Bay Beaches Dry Weather Bacteria TMDL (SMB Dry Weather Bacteria TMDL) waste load allocations (WLAs). As a result of a legal challenge to Order No. R4-2006-0074, the Los Angeles County Superior Court issued a peremptory writ of mandate on July 23, 2010 requiring the Regional Water Board to void and set aside the amendments adopted through Order No. R4-2006-0074 in Order No. 01-182. The Court concluded that the permit proceeding at which Order No. R4-2006-0074 was adopted was procedurally deficient. The Court did not address the substantive merits of the amendments themselves, and thus made no determination about the substantive validity of Order No. R4-2006-0074. In compliance with the writ of mandate, the Regional Water Board voided and set aside the amendments adopted through Order the amendments adopted through Order No. R4-2006-0074. In Corder No. R4-2006-0074 on April 14, 2011. This Order reincorporates requirements equivalent to the 2006 provisions to implement the SMB Dry Weather Bacteria TMDL.

In addition, Order No. 01-182 was amended on August 9, 2007 by Order No. R4-2007-0042 to incorporate provisions consistent with the assumptions and requirements of the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, and was again amended on December 10, 2009 by Order No. R4-2009-0130 to incorporate provisions consistent with the assumptions and requirements of the Los Angeles River Watershed Trash TMDL.

C. Permit Application

On June 12, 2006, prior to the expiration date of Order No. 01-182, all of the Permittees filed Reports of Waste Discharge (ROWD) applying for renewal of their waste discharge requirements that serve as an NPDES permit to discharge storm water and authorized and conditionally exempt non-storm water through their MS4 to surface waters. Specifically, the Los Angeles County Flood Control District (LACFCD) submitted an ROWD application on behalf of itself, the County of Los Angeles, and 78 other Permittees. Several Permittees under Order No. 01-182 elected to not be included as part of the Los Angeles County Flood Control District's ROWD. On June 12, 2006, the Cities of Downey and Signal Hill each submitted an individual ROWD application requesting a separate MS4 Permit; and the Upper San Gabriel River Watershed Coalition, comprised of the cities of Azusa, Claremont, Glendora, Irwindale, and Whittier also submitted an individual ROWD application requesting a separate MS4 Permit for these cities. In 2010, the LACFCD withdrew from its participation in the 2006 ROWD submitted in conjunction with the County and 78 other co-permittees, and submitted a new ROWD also requesting an individual MS4 permit. The LACFCD also requested

that, if an individual MS4 permit was not issued to it, it no longer be designated as the Principal Permittee and it be relieved of Principal Permittee responsibilities. The Regional Water Board evaluated each of the 2006 ROWDs and notified all of the Permittees that their ROWDs did not satisfy federal storm water regulations contained in the USEPA Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems; Final Rule, August 9, 1996 (61 *Fed Reg.* 41697). Because each ROWD did not satisfy federal requirements, the Regional Water Board deemed all four 2006 ROWDs incomplete. The Regional Water Board also evaluated the LACFCD's 2010 ROWD and found that it too did not satisfy federal requirements for MS4s.

Though five separate ROWDs were submitted, the Regional Water Board retains discretion as the permitting authority to determine whether to issue permits for discharges from MS4s on a system-wide or jurisdiction-wide basis (Clean Water Act (CWA) § 402(p)(3)(B)(i); 40 CFR section 122.26, subdivisions (a)(1)(v) and (a)(3)(ii)). Because of the complexity and networking of the MS4 within Los Angeles County, which often results in commingled discharges, the Regional Water Board has previously adopted a system-wide approach to permitting MS4 discharges within Los Angeles County.

In evaluating the five separate ROWDs, the Regional Water Board considered the appropriateness of permitting discharges from MS4s within Los Angeles County on a system-wide or jurisdiction-wide basis or a combination of both. Based on that evaluation, the Regional Water Board again determined that, because of the complexity and networking of the MS4 within Los Angeles County, that one system-wide permit is appropriate. In order to provide individual Permittees with more specific requirements, certain provisions of this Order are organized by watershed management area, which is appropriate given the requirements to implement 33 watershed-based TMDLs. The Regional Water Board also determined that as the primary owner and operator of the Los Angeles County MS4, the LACFCD should remain a Permittee in the single system-wide permit; however, this Order relieves the LACFCD of its role as "Principal Permittee."

D. Permit Coverage and Facility Description

The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach (see Table 5, List of Permittees), hereinafter referred to separately as Permittees and jointly as the Dischargers, discharge storm water and non-storm water from municipal separate storm sewer systems (MS4s), also called storm drain systems. For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger, or Permittees herein.

Table 5. List of Permittees

Agoura Hills	Hawaiian Gardens	Pomona
Alhambra	Hawthorne	Rancho Palos Verdes

Arcadia	Hermosa Beach	Redondo Beach
Artesia	Hidden Hills	Rolling Hills
Azusa	Huntington Park	Rolling Hills Estates
Baldwin Park	Industry	Rosemead
Bell	Inglewood	San Dimas
Bell Gardens	Irwindale	San Fernando
Bellflower	La Canada Flintridge	San Gabriel
Beverly Hills	La Habra Heights	San Marino
Bradbury	La Mirada	Santa Clarita
Burbank	La Puente	Santa Fe Springs
Calabasas	La Verne	Santa Monica
Carson	Lakewood	Sierra Madre
Cerritos	Lawndale	Signal Hill
Claremont	Lomita	South El Monte
Commerce	Los Angeles	South Gate
Compton	Lynwood	South Pasadena
Covina	Malibu	Temple City
Cudahy	Manhattan Beach	Torrance
Culver City	Maywood	Vernon
Diamond Bar	Monrovia	Walnut
Downey	Montebello	West Covina
Duarte	Monterey Park	West Hollywood
El Monte	Norwalk	Westlake Village
El Segundo	Palos Verdes Estates	Whittier
Gardena	Paramount	County of Los Angeles
Glendale	Pasadena	Los Angeles County Flood
Glendora	Pico Rivera	Control District

The Los Angeles County Flood Control District encompasses more than 3,000 square miles. The LACFCD contains a vast drainage network that serves incorporated and unincorporated areas in every Watershed Management Area within the Los Angeles Region. The drainage infrastructure includes approximately 500 miles of open channels, 2,900 miles of underground storm drains, and over 80,000 catch basins. Maps depicting the major drainage infrastructure of the Los Angeles County MS4 are included in Attachment C of this Order.

E. Permit Scope

This Order regulates municipal discharges of storm water and non-storm water from the Permittees' MS4. Section 122.26(b)(8) of title 40 of the Code of Federal Regulations (CFR) defines an MS4 as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) [o]wned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) [d]esigned or used for collecting or conveying storm water; (iii) [w]hich is not a combined sewer; and (iv) [w]hich is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

Storm water discharges consist of those discharges that originate from precipitation events. Federal regulations define "storm water" as "storm water runoff, snow melt runoff, and surface runoff and drainage." (40 CFR § 122.26(b)(13).) While "surface runoff and drainage" is not defined in federal law, USEPA's preamble to its final storm water regulations demonstrates that the term is related to precipitation events such as rain and/or snowmelt. (55 *Fed. Reg.* 47990, 47995-96 (Nov. 16, 1990)).

Non-storm water discharges consist of all discharges through an MS4 that do not originate from precipitation events. Non-storm water discharges through an MS4 are prohibited unless authorized under a separate NPDES permit; authorized by USEPA pursuant to Sections 104(a) or 104(b) of the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); composed of natural flows; the result of emergency fire fighting activities; or conditionally exempted in this Order.

F. Geographic Coverage and Watershed Management Areas

The municipal storm water and non-storm water discharges flow into receiving waters in the Watershed Management Areas of the Santa Clara River Watershed; Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; Los Angeles River Watershed; Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; Los Cerritos Channel and Alamitos Bay Watershed Management Area; San Gabriel River Watershed; and Santa Ana River Watershed.

This Order redefines Watershed Management Areas (WMAs) consistent with the delineations used in the Regional Water Board's Watershed Management Initiative. Permittees included in each of the WMAs are listed in Attachment K.

Maps depicting each WMA, its subwatersheds, and the major receiving waters therein are included in Attachment B.

Federal, state, regional or local entities in jurisdictions outside the Los Angeles County Flood Control District, and not currently named as Permittee to this Order, may operate MS4 facilities and/or discharge to the MS4 and water bodies covered by this Order. Pursuant to 40 CFR sections 122.26(d)(1)(ii) and 122.26(d)(2)(iv), each Permittee shall maintain the necessary legal authority to control the contribution of pollutants to its MS4 and shall include in its storm water management program a comprehensive planning process that includes intergovernmental coordination, where necessary. Sources of MS4 discharges into receiving waters in the County of Los Angeles but not covered by this Order include the following:

- About 34 square miles of unincorporated area in Ventura County, which drain into Malibu Creek and then to Santa Monica Bay,
- About 9 square miles of the City of Thousand Oaks, which also drain into Malibu Creek and then to Santa Monica Bay, and
- About 86 square miles of area in Orange County, which drain into Coyote Creek and then into the San Gabriel River.

Specifically, the Orange County Flood Control District (OCFCD) owns and operates the Los Alamitos Retarding Basin and Pumping Station (Los Alamitos Retarding Basin). The Los Alamitos Retarding Basin is within the San Gabriel River Watershed, and is located adjacent to the Los Angeles and Orange County boundary. The majority of the 30-acre Los Alamitos Retarding Basin is in Orange County; however, the northwest corner of the facility is located in the County of Los Angeles. Storm water and non-storm water discharges, which drain to the Los Alamitos Retarding Basin, are pumped to the San Gabriel River Estuary (SGR Estuary) through pumps and subterranean piping. The pumps and discharge point are located in the County of Los Angeles.

The OCFCD pumps the water within the Los Alamitos Retarding Basin to the San Gabriel River Estuary through four discharge pipes, which are covered by tide gates. The discharge point is located approximately 700 feet downstream from the 2nd Street Bridge in Long Beach. The total pumping capacity of the four pumps is 800 cubic feet per second (cfs). There is also a 5 cfs sump pump that discharges nuisance flow continuously to the Estuary though a smaller diameter uncovered pipe.

The discharge from the Los Alamitos Retarding Basin is covered under the Orange County Municipal NPDES Storm Water Permit (NPDES Permit No. CAS618030, Santa Ana Regional Water Quality Control Board Order No. R8-2010-0062), which was issued to the County of Orange, Orange County Flood Control District and Incorporated Cities on May 22, 2009. The Orange County MS4 Permit references the San Gabriel River Metals and Selenium TMDL (Metals TMDL). The waste load allocations listed in the Metals TMDL for Coyote Creek are included in the Orange County MS4 Permit. However, the Orange County MS4 Permit does not contain the dry weather copper waste load allocations assigned to the Estuary.

G. Legal Authorities

This Order is issued pursuant to CWA section 402 and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). This Order serves as an NPDES permit for point source discharges from the Los Angeles County MS4 to surface waters. This Order also serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with Section 13260).

H. Municipal Separate Storm Sewer System Requirements. The 1972 Clean Water Act² established the NPDES Program to regulate the discharge of pollutants from point sources to waters of the United States. However, pollution from storm water and dryweather urban runoff was largely unabated for over a decade. In response to the 1987 Amendments to the I Clean Water Act, USEPA developed Phase I of the NPDES Storm Water Permitting Program in 1990, which established a framework for regulating municipal and industrial discharges of storm water and non-storm water. The Phase I program addressed sources of storm water and dry-weather urban runoff that had the greatest potential to negatively impact water quality. In particular, under Phase I, USEPA required NPDES Permit coverage for discharges from medium and large MS4 with populations of 100,000 or more. Operators of MS4s regulated under the Phase I NPDES Storm Water Program were required to obtain permit coverage for municipal discharges of storm water and non-storm stores and under the Phase I NPDES Storm Water Program water and non-storm water to waters of the United States

Early in the history of the LA County MS4 Permit, the Regional Water Board designated the MS4s owned and/or operated by the incorporated cities and Los Angeles County unincorporated areas within the LACFCD as a large MS4 due to the total population of Los Angeles County, including that of unincorporated and incorporated areas, and the interrelationship between the MS4s throughout the LACFCD, pursuant to 40 CFR section 122.26(b)(4). The total population of the cities and County unincorporated areas covered by this Order was 9,519,338 in 2000 and has increased by approximately 300,000 to 9,818,605 in 2010, according to the United States Census.

This Order implements the federal Phase I NPDES Storm Water Program requirements. These requirements include three fundamental elements: (i) a requirement to effectively prohibit non-storm water discharges through the MS4, (ii) requirements to implement controls to reduce the discharge of pollutants to the maximum extent practicable, and (iii) other provisions that the Regional Water Board determines necessary for the control of pollutants in MS4 discharges in order to achieve water quality standards.

- I. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the Permittees' applications, through monitoring and reporting programs, and other available information. In accordance with federal regulations at 40 CFR section 124.8, a Fact Sheet (Attachment F) has been prepared to explain the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing this Order. The Fact Sheet is hereby incorporated into this Order and also constitutes part of the Findings of the Regional Water Board for this Order. Attachments A through E and G through R are also incorporated into this Order.
- J. Water Quality Control Plans. The Clean Water Act requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. The Regional Water Board adopted a *Water Quality*

² Federal Water Pollution Control Act; 33 U.S.C. § 1251 et seq., which, as amended in 1977, is commonly known as the Clean Water Act.

Control Plan - Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 and has amended it on multiple occasions since 1994. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Basin Plan. Beneficial uses applicable to the surface water bodies that receive discharges from the Los Angeles County MS4 generally include those listed below.

Discharge Point	Receiving Water Name	Beneficial Uses
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Multiple surface water bodies of the Los Angeles Region	Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PROC); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC-1); Limited Contact Recreation (LREC- 1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Preservation of Areas of Special Biological Significance (BIOL); Wildlife Habitat (WILD); Preservation of Rare and Endangered Species (RARE); Marine Habitat (MAR); Wetland Habitat (WET); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)

1. Total Maximum Daily Loads (TMDLs)

Clean Water Act section 303(d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards. Water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards are considered impaired and are placed on the state's "CWA Section 303(d) List". For each listed water body, the state is required to establish a TMDL of each pollutant impairing the water quality standards in that water body. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable pollutant loadings for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a water body to meet water quality standards. A TMDL is the sum of the allowable pollutant loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and nonpoint sources (load allocations or LAs), plus the contribution from background sources and a margin of safety. (40 CFR section 130.2(i).) MS4 discharges are considered point source discharges.

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Numerous receiving waters within Los Angeles County do not meet water quality standards or fully support beneficial uses and therefore have been classified as impaired on the State's 303(d) List. The Regional Water Board and USEPA have each established TMDLs to address many of these water quality impairments. Pursuant to CWA section 402(p)(B)(3)(iii) and 40 CFR section 122.44(d)(1)(vii)(B), this Order includes requirements that are consistent with and implement WLAs that are assigned to discharges from the Los Angeles County MS4 from 33 State-adopted and USEPA established TMDLs. This Order requires Permittees to comply with the TMDL Provisions in Part VI.E and Attachments L through R, which are consistent with the assumptions and requirements of the TMDL WLAs assigned to discharges from the Los Angeles County MS4. A comprehensive list of TMDLs by watershed management area and the Permittees subject to each TMDL is included in Attachment K.

Waste load allocations in these TMDLs are expressed in several ways depending on the nature of the pollutant and its impacts on receiving waters and beneficial uses. Bacteria WLAs assigned to MS4 discharges are expressed as the number of allowable exceedance days that a water body may exceed the Basin Plan water quality objectives for protection of the REC-1 beneficial use. Since the TMDLs and the WLAs contained therein are expressed as receiving water conditions, receiving water limitations have been included in this Order that are consistent with and implement the allowable exceedance day WLAs. Water quality-based effluent limitations are also included equivalent to the Basin Plan water quality objectives to allow the opportunity for Permittees to individually demonstrate compliance at an outfall or jurisdictional boundary, thus isolating the Permittee's pollutant contributions from those of other Permittees and from other pollutant sources to the receiving water.

WLAs for trash are expressed as progressively decreasing allowable amounts of trash discharges from a Permittee's jurisdictional area within the drainage area to the impaired water body. The Trash TMDLs require each Permittee to make annual reductions of its discharges of trash over a set period, until the numeric target of zero trash discharged from the MS4 is achieved. The Trash TMDLs specify a specific formula for calculating and allocating annual reductions in trash discharges from each jurisdictional area within a watershed. The formula results in specified annual amounts of trash that may be discharged from each jurisdiction into the receiving waters. Translation of the WLAs or compliance points described in the TMDLs into jurisdiction-specific load reductions from the baseline levels, as specified in the TMDL, logically results in the articulation of an annual limitation on the amount of a pollutant that may be discharged. The specification of allowable annual trash discharge amounts meets the definition of an "effluent limitation", as that term is defined in subdivision (c) of section 13385.1 of the California Water Code. Specifically, the trash discharge limitations constitute a "numeric restriction ... on the quantity [or] discharge rate ... of a pollutant or pollutants that may be discharged from an authorized location."

TMDL WLAs for other pollutants (e.g., metals and toxics) are expressed as concentration and/or mass and water quality-based effluent limitations have been specified consistent with the expression of the WLA, including any applicable averaging periods. Some TMDLs specify that, if certain receiving water conditions are achieved, such achievement constitutes attainment of the WLA. In these cases, receiving water limitations and/or provisions outlining these alternate means of demonstrating compliance are included in the TMDL provisions in Part VI.E of this Order.

The inclusion of water quality-based effluent limitations and receiving water limitations to implement applicable WLAs provides a clear means of identifying required water quality outcomes within the permit and ensures accountability by Permittees to implement actions necessary to achieve the limitations.

A number of the TMDLs for bacteria, metals, and toxics establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Permittees based on co-location within the same subwatershed. Permittees with co-mingled MS4 discharges are jointly responsible for meeting the water quality-based effluent limitations and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner and/or operator, to meet the water quality-based effluent limitations and/or receiving water limitations assigned to S4 discharges.

In these cases, federal regulations state that co-permittees need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators (40 CFR § 122.26(a)(3)(vi)). Individual co-permittees are only responsible for their contributions to the commingled MS4 discharge. This Order does not require a Permittee to individually ensure that a commingled MS4 discharge meets the applicable water quality-based effluent limitations included in this Order, unless such Permittee is shown to be solely responsible for an exceedance.

Additionally, this Order allows a Permittee to clarify and distinguish their individual contributions and demonstrate that its MS4 discharge did not cause or contribute to exceedances of applicable water quality-based effluent limitations and/or receiving water limitations. If such a demonstration is made, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the water quality-based effluent limitation or receiving water limitation. Individual co-permittees who demonstrate compliance with the water quality-based effluent limitations by non-compliant co-permittees.

Given the interconnected nature of the Los Angeles County MS4, however, the Regional Water Board expects Permittees to work cooperatively to control the contribution of pollutants from one portion of the MS4 to another portion of the system through inter-agency agreements or other formal arrangements.

K. Ocean Plan. In 1972, the State Water Resources Control Board (State Water Board) adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan). The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to the ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in the table below.

Discharge Point	Receiving Water Name	Beneficial Uses
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Pacific Ocean	Industrial Water Supply (IND); Water Contact (REC-1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)

Table 7. Ocean Plan Beneficial Uses

L. Antidegradation Policy

40 CFR section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation

policies. The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

- **M. Anti-Backsliding Requirements.** Section 402(o)(2) of the CWA and federal regulations at 40 CFR section 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations or other conditions in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations or conditions may be relaxed. All effluent limitations and conditions in the previous permit.
- N. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the United States. Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.
- **O. Monitoring and Reporting.** 40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- P. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. Dischargers must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42 provided in Attachment D. The Regional Water Board has also included in Part VI of this Order various special provisions applicable to the Dischargers. A rationale for the various special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

Q. Unfunded Mandates

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds for several reasons as described in detail in the attached Fact Sheet (Attachment F).

R. Economic Considerations. The California Supreme Court has ruled that although California Water Code section 13263 requires the State and Regional Water Boards

(collectively, Water Boards) to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Water Boards may not consider the factors to justify imposing pollutant restriction that are less stringent than the applicable federal regulations require. (City of Burbank v. State Water Resources Control Bd. (2005) 35 Cal.4th 613, 618, 627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Water Boards consider the factors described in section 13241 as they apply to those specific restrictions. As noted in the preceding finding, the Regional Water Board finds that the requirements in this permit are not more stringent than the minimum federal requirements. Therefore, a 13241 analysis is not required for permit requirements that implement the effective prohibition on the discharge of nonstorm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law. Notwithstanding the above, the Regional Water Board has developed an economic analysis of the permit's requirements, consistent with California Water Code section 13241. That analysis is provided in the Fact Sheet (Attachment F of this Order).

- T. California Environmental Quality Act (CEQA). This action to adopt an NPDES Permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, § 21100, et seq.) pursuant to California Water Code section 13389. (*County of Los Angeles v. Cal. Water Boards* (2006) 143 Cal.App.4th 985.)
- **U. Notification of Interested Parties.** In accordance with State and federal laws and regulations, the Regional Water Board has notified the Permittees and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharges authorized by this Order and has provided them with an opportunity to provide written and oral comments. Details of notification, as well as the meetings and workshops held on drafts of the permit, are provided in the Fact Sheet of this Order.
- V. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all oral and written comments pertaining to the discharges authorized by this Order and the requirements contained herein. The Regional Water Board has prepared written responses to all timely comments, which are incorporated by reference as part of this Order.
- **W.** This Order serves as an NPDES permit pursuant to CWA section 402 or amendments thereto, and becomes effective fifty (50) days after the date of its adoption, provided that the Regional Administrator, USEPA, Region IX, expresses no objections.
- X. This Order supersedes Order No. 01-182 as amended, except for enforcement purposes.
- **Y. Review by the State Water Board.** Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive*

the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

THEREFORE, IT IS HEREBY ORDERED, that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000), and regulations, plans, and policies adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following requirements:

III. DISCHARGE PROHIBITIONS

- A. Prohibitions Non-Storm Water Discharges
 - 1. Prohibition of Non-Storm Water Discharges. Each Permittee shall, for the portion of the MS4 for which it is an owner or operator, prohibit non-storm water discharges through the MS4 to receiving waters except where such discharges are either:
 - **a.** Authorized non-storm water discharges separately regulated by an individual or general NPDES permit;
 - b. Temporary non-storm water discharges authorized by USEPA³ pursuant to sections 104(a) or 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that either: (i) will comply with water quality standards as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA; or (ii) are subject to either (a) a written waiver of ARARs by USEPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation pursuant to 40 CFR. section 300.415(j);
 - **c.** Authorized non-storm water discharges from emergency fire fighting activities (i.e., flows necessary for the protection of life or property)⁴;
 - **d.** Natural flows, including:
 - **i.** Natural springs;
 - ii. Flows from riparian habitats and wetlands;

³ These typically include short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or USEPA or State-required compliance testing of potable water treatment plants, as part of a USEPA authorized groundwater remediation action under CERCLA.

⁴ Discharges from vehicle washing, building fire suppression system maintenance and testing (e.g., sprinkler line flushing), fire hydrant maintenance and testing, and other routine maintenance activities are not considered emergency fire fighting activities.

- iii. Diverted stream flows, authorized by the State or Regional Water Board;
- iv. Uncontaminated ground water infiltration⁵;
- v. Rising ground waters, where ground water seepage is not otherwise covered by a NPDES permit⁶; or
- e. Conditionally exempt non-storm water discharges in accordance with Parts III.A.2 and III.A.3 below.
- 2. Conditional Exemptions from Non-Storm Water Discharge Prohibition. The following categories of non-storm water discharges are conditionally exempt from the non-storm water discharge prohibition, provided they meet all required conditions specified below, or as otherwise approved by the Regional Water Board Executive Officer, in all areas regulated by this Order with the exception of direct discharges to Areas of Special Biological Significance (ASBS) within Los Angeles County. Conditional exemptions from the prohibition on non-storm water discharges through the MS4 to an ASBS are identified in Part III.A.3 below.
 - a. Conditionally Exempt Essential Non-Storm Water Discharges: These consist of those discharges that fall within one of the categories below; meet all required best management practices (BMPs) as specified in i. and ii. below, including those enumerated in the referenced BMP manuals; are essential public services discharge activities; and are directly or indirectly required by other state or federal statute and/or regulation:
 - i. Discharges from essential *non-emergency* fire fighting activities⁷ provided appropriate BMPs are implemented based on the CAL FIRE, Office of the State Fire Marshal's *Water-Based Fire Protection Systems Discharge Best Management Practices Manual* (September 2011) for water-based fire protection system discharges, and based on Riverside County's *Best Management Practices Plan for Urban Runoff Management* (May 1, 2004) or equivalent BMP manual for fire training activities and post-emergency fire fighting activities;
 - **ii.** Discharges from potable water sources, where not otherwise regulated by an individual or general NPDES permit⁸, provided appropriate BMPs are

⁵ Uncontaminated ground water infiltration is water other than waste water that enters the MS4 (including foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow. (See 40 CFR § 35.2005(20).)

⁶ A NPDES permit for discharges associated with ground water dewatering is required within the Los Angeles Region.

⁷ This includes fire fighting training activities, which simulate emergency responses, and routine maintenance and testing activities necessary for the protection of life and property, including building fire suppression system maintenance and testing (e.g. sprinkler line flushing) and fire hydrant testing and maintenance. Discharges from vehicle washing are not considered essential and as such are not conditionally exempt from the non-storm water discharge prohibition.

⁸ Potable water distribution system releases means sources of flows from drinking water storage, supply and distribution systems (including flows from system failures), pressure releases, system maintenance, distribution line testing, and flushing and dewatering of pipes, reservoirs, and vaults, and minor non-invasive well maintenance activities not involving chemical addition(s) where not otherwise regulated by NPDES Permit No. CAG674001, NPDES Permit No. CAG994005, or an other separate NPDES permit.

implemented based on the American Water Works Association (California-Nevada Section) *Guidelines for the Development of Your Best Management Practices (BMP) Manual for Drinking Water System Releases* (2005) or equivalent industry standard BMP manual. Additionally, each Permittee shall work with potable water suppliers that may discharge to the Permittee's MS4 to ensure: (1) notification at least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge; (2) monitoring of any pollutants of concern⁹ in the potable water supply release; and (3) record keeping by the potable water supplier for all discharges greater than one acre-foot.¹⁰

- **b.** Those discharges that fall within one of the categories below, provided that the discharge itself is not a source of pollutants and meets all required conditions specified in Table 8 or as otherwise specified or approved by the Regional Water Board Executive Officer:
 - **i.** Dewatering of lakes¹¹;
 - ii. Landscape irrigation;
 - **iii.** Dechlorinated/debrominated swimming pool/spa discharges¹², where not otherwise regulated by a separate NPDES permit;
 - iv. Dewatering of decorative fountains¹³;
 - v. Non-commercial car washing by residents or by non-profit organizations;
 - vi. Street/sidewalk wash water¹⁴.

⁹ Pollutants of concern include, at a minimum, trash and debris, including organic matter, total suspended solids (TSS), and any pollutant for which there is a water quality-based effluent limitation in Part VI.E applicable to discharges from the MS4 to the receiving water.

¹⁰ Permittees shall require that the following information is maintained by the water supplier(s) for all discharges (planned and unplanned) greater than one acre-foot: name of discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type of dechlorination equipment used, type of dechlorination chemicals used, concentration of residual chlorine, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be retained for five years and made available upon request by the Permittee or Regional Water Board.

¹¹ Dewatering of lakes does not include dewatering of drinking water reservoirs. Dewatering of drinking water reservoirs is addressed in Section III.A.2.a.ii.

¹² Conditionally exempt dechlorinated/debrominated swimming pool/spa discharges do not include swimming pool/spa filter backwash or swimming pool/spa water containing bacteria, detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives.

¹³ Conditionally exempt discharges from dewatering of decorative fountains do not include fountain water containing bacteria, detergents, wastes, or algaecides, or any other chemicals in excess of applicable water quality objectives.

¹⁴ Conditionally exempt non-storm water discharges of street/sidewalk wash water only include those discharges resulting from use of high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area in accordance with Regional Water Board Resolution No. 98-08. Conditionally exempt non-storm water discharges of street/sidewalk wash water do not include hosing of any sidewalk or street with a garden hose with a pressure nozzle.

- 3. Conditional Exemptions from Non-Storm Water Discharge Prohibition within an ASBS. The following non-storm water discharges through the MS4 to an ASBS are conditionally exempt pursuant to the California Ocean Plan as specified below, provided that:
 - **a.** The discharges are essential for emergency response purposes, structural stability, slope stability or occur naturally, including the following discharges:
 - i. Discharges associated with emergency fire fighting activities (i.e., flows necessary for the protection of life or property)¹⁵;
 - **ii.** Foundation and footing drains;
 - iii. Water from crawl space or basement pumps;
 - iv. Hillside dewatering;
 - v. Naturally occurring ground water seepage via a MS4; and
 - vi. Non-anthropogenic flows from a naturally occurring stream via a culvert or MS4, as long as there are no contributions of anthropogenic runoff.
 - **b.** The discharges fall within one of the conditionally exempt essential non-storm water discharge categories in Part III.A.2.a. above.
 - **c.** Conditionally exempt non-storm water discharges shall not cause or contribute¹⁶ to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations in this Order or the water quality objectives in Chapter II of the Ocean Plan, or alter natural ocean water quality in an ASBS.
 - 4. Permittee Requirements. Each Permittee shall:
 - **a.** Develop and implement procedures to ensure that a discharger, if not a named Permittee in this Order, fulfills the following for non-storm water discharges to the Permittee's MS4:
 - i. Notifies the Permittee of the planned discharge in advance, consistent with requirements in Table 8 or recommendations pursuant to the applicable BMP manual;
 - Obtains any local permits required by the MS4 owner(s) and/or operator(s);

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¹⁵ See note 4.

¹⁶ Based on the water quality characteristics of the conditionally exempt non-storm water discharge itself.

- **iii.** Provides documentation that it has obtained any other necessary permits or water quality certifications¹⁷ for the discharge;
- iv. Conducts monitoring of the discharge, if required by the Permittee;
- v. Implements BMPs and/or control measures as specified in Table 8 or in the applicable BMP manual(s) as a condition of the approval to discharge into the Permittee's MS4; and
- **vi.** Maintains records of its discharge to the MS4, consistent with requirements in Table 8 or recommendations pursuant to the applicable BMP manual.
- **b.** Develop and implement procedures that minimize the discharge of landscape irrigation water into the MS4 by promoting conservation programs.
 - i. Permittees shall coordinate with the local water purveyor(s), where applicable, to promote landscape water use efficiency requirements for existing landscaping, use of drought tolerant, native vegetation, and the use of less toxic options for pest control and landscape management.
 - **ii.** Permittees shall develop and implement a coordinated outreach and education program to minimize the discharge of irrigation water and pollutants associated with irrigation water consistent with Part VI.D.4.c of this Order (Public Information and Participation Program).
- c. Evaluate monitoring data collected pursuant to the Monitoring and Reporting Program (MRP) of this Order (Attachment E), and any other associated data or information, and determine whether any of the authorized or conditionally exempt non-storm water discharges identified in Parts III.A.1, III.A.2, and III.A.3 above are a source of pollutants that may be causing or contributing to an exceedance of applicable receiving water limitations in Part V and/or water guality-based effluent limitations in Part VI.E. To evaluate monitoring data, the Permittee shall either use applicable interim or final water guality-based effluent limitations for the pollutant or, if there are no applicable interim or final water quality-based effluent limitations for the pollutant, use applicable action levels provided in Attachment G. Based on non-storm water outfall-based monitoring as implemented through the MRP, if monitoring data show exceedances of applicable water guality-based effluent limitations or action levels, the Permittee shall take further action to determine whether the discharge is causing or contributing to exceedances of receiving water limitations in Part V.
- **d.** If the Permittee determines that any of the conditionally exempt non-storm water discharges identified in Part III.A.2.b above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water

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¹⁷ Pursuant to the Federal Clean Water Act § 401.

limitations and/or water quality-based effluent limitations, the Permittee(s) shall report its findings to the Regional Water Board in its annual report. Based on this determination, the Permittee(s) shall also either:

- i. Effectively prohibit¹⁸ the non-storm water discharge to the MS4; or
- **ii.** Impose conditions in addition to those in Table 8, subject to approval by the Regional Water Board Executive Officer, on the non-storm water discharge such that it will not be a source of pollutants; or
- iii. Provide for diversion of the non-storm water discharge to the sanitary sewer; or
- iv. Provide treatment of the non-storm water discharge prior to discharge to the receiving water.
- e. If the Permittee determines that any of the authorized or conditionally exempt essential non-storm water discharges identified in Parts III.A.1.a through III.A.1.c, III.A.2.a, or III.A.3 above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, the Permittee shall notify the Regional Water Board within 30 days if the non-storm water discharge is an authorized discharge with coverage under a separate NPDES permit or authorized by USEPA under CERCLA in the manner provided in Part III.A.1.b above, or a conditionally exempt essential non-storm water discharge or emergency non-storm water discharge.
- f. If the Permittee prohibits the discharge from the MS4, as per Part III.A.4.d.i, then the Permittee shall implement procedures developed under Part VI.D.9 (Illicit Connections and Illicit Discharges Elimination Program) in order to eliminate the discharge to the MS4.
- 5. If a Permittee demonstrates that the water quality characteristics of a specific authorized or conditionally exempt essential non-storm water discharge resulted in an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations during a specific sampling event, the Permittee shall not be found in violation of applicable receiving water limitations and/or water quality-based effluent limitations for that specific sampling event. Such demonstration must be based on source specific water quality monitoring data from the authorized or conditionally exempt essential non-storm water discharge and other relevant information regarding the specific non-storm water discharge as identified in Table 8.
- 6. Notwithstanding the above, the Regional Water Board Executive Officer, based on an evaluation of monitoring data and other relevant information for specific

¹⁸ To "effectively prohibit" means to not allow the non-storm water discharge through the MS4 unless the discharger obtains coverage under a separate NPDES permit prior to discharge to the MS4.

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categories of non-storm water discharges, may modify a category or remove categories of conditionally exempt non-storm water discharges from Parts III.A.2 and III.A.3 above if the Executive Officer determines that a discharge category is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, or may require that a discharger obtain coverage under a separate individual or general State or Regional Water Board permit for a non-storm water discharge.

Table 8. Required Conditions for Conditionally Exempt Non-Storm Water Discharges

Discharge Category	General Conditions Under Which Discharge Through the MS4 is Allowed	Conditions/BMPs that are Required to be Implemented Prior to Discharge Through the MS4
		Segregate conditionally exempt non-storm water discharges from potential sources of pollutants to prevent introduction of pollutants to the MS4 and receiving water.
All Discharge See discharge specific conditions below.	Whenever there is a discharge of one acre-foot or more into the MS4, the Los Angeles County Flood Control District shall require advance notification by the discharger to the potentially affected MS4 Permittees, including at a minimum the District and the Permittee with jurisdiction over the land area from which the discharge originates.	

		Ensure procedures for advanced notification by the lake owner / operator to the Permittee(s) no less than 72 hours prior to the planned discharge.
	Discharge allowed only if all necessary	Immediately prior to discharge, visible trash on the shoreline or on the surface of the lake shall be removed and disposed of in a legal manner.
Dewatering of lakes	permits/water quality certifications for dredge and fill activities, including	Immediately prior to discharge, the discharge pathway, the MS4 inlet to which the discharge is directed, and the MS4 outlet from which the water will be discharged to the receiving water, shall be inspected and cleaned out.
	water diversions, are	Discharges shall be volumetrically and velocity controlled to minimize resuspension of sediments.
		Measures shall be taken to stabilize lake bottom sediments.
		Ensure procedures for water quality monitoring for pollutants of concern ¹⁹ in the lake.
		Ensure record-keeping of lake dewatering by the lake owner / operator. ²⁰

¹⁹ Pollutants of concern include, at a minimum, trash and debris, including organic matter, TSS, and any pollutant for which there is a water quality-based effluent limitation in Part VI.E for the lake and/or receiving water.

²⁰ Permittees shall require that the following information is maintained by the lake owner / operator: name of discharger, date and time of notification, method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be made available upon request by the Permittee or Regional Water Board.

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Greater Los Angeles County Municipal Separate Storm Sewer System

Landscape irrigation using potable water	Discharge allowed if runoff due to potable landscape irrigation is minimized through the implementation of an ordinance specifying water efficient landscaping standards, as well as an outreach and education program focusing on water conservation and landscape water use efficiency.	Implement BMPs to minimize runoff and prevent introduction of pollutants to the MS4 and receiving water. Implement water conservation programs to minimize discharge by using less water.	
Landscape irrigation using reclaimed or recycled water	Discharge of reclaimed or recycled water runoff from landscape irrigation is allowed if the discharge is in compliance with the producer and distributor operations and management (O&M) plan, and all relevant portions thereof, including the Irrigation Management Plan.	Discharges must comply with applicable O&M Plans, and all relevant portions thereof, including the Irrigation Management Plan.	

Greater Los Angeles County Municipal Separate Storm Sewer System

Dechlorinated/ debrominated swimming pool/spa discharges	Discharges allowed after implementation of specified BMPs. Pool or spa water containing copper- based algaecides is not allowed to be discharged to the MS4. Discharges of cleaning waste water and filter backwash allowed only if authorized by a separate NPDES permit.	Implement BMPs and segregate discharge from potential sources of pollutants to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Swimming pool water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Swimming pool water shall not contain any detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives. ²¹ Swimming pool discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Swimming pool discharges shall be volumetrically and velocity controlled to promote evaporation and/or infiltration. Ensure procedures for advanced notification by the pool owner to the Permittee(s) at least 72 hours prior to planned discharge for discharges of one acre-foot or more. Immediately prior to discharge, the discharge pathway, the MS4 inlet to which the discharge is directed, and the MS4 outlet from which the water will be discharged to the receiving water, shall be inspected and cleaned out.	T E N T A
Dewatering of decorative fountains	Discharges allowed after implementation of specified BMPs. Fountain water containing copper- based algaecides may not be discharged to the MS4. Fountain water containing dyes my not be discharged to the MS4.	 Implement BMPs and segregate discharge from potential sources of pollutants to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Fountain water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Fountain discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Fountain discharges shall be volumetrically and velocity controlled to promote evaporation and/or infiltration. Ensure procedures for advanced notification by the fountain owner to the Permittee(s) at least 72 hours prior to planned discharge for discharges of one acre-foot or more. Immediately prior to discharge, the discharge pathway, the MS4 inlet to which the discharge is directed, and the MS4 outlet from which the water will be discharged to the receiving water, shall be inspected and cleaned out. 	I V E

²¹ Applicable mineral water quality objectives for surface waters are contained in Chapter 3 of the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

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Greater Los Angeles County Municipal Separate Storm Sewer System

washing by	Discharges allowed after implementation of specified BMPs.	Implement BMPs and segregate discharge from potential sources of pollutants to prevent introduction of pollutants prior to discharge to the MS4 and receiving water.
		Minimize the amount of water used by employing water conservation practices such as turning off nozzles or kinking the hose when not spraying a car, and using a low volume pressure washer.
		Encourage use of biodegradable, phosphate free detergents and non-toxic cleaning products.
		Where possible, wash cars on a permeable surface where wash water can percolate into the ground (e.g. gravel or grassy areas).
		Empty buckets of soapy or rinse water into the sanitary sewer system (e.g., sinks or toilets).
		Sweeping should be used as an alternate BMP whenever possible and sweepings should be disposed of in the trash.
Street/sidewalk wash water Discharges allowe after implementation of specified BMPs		BMPs shall be in accordance with Regional Water Board Resolution No. 98-08 that requires: 1) removal of trash, debris, and free standing oil/grease spills/leaks (use absorbent material if necessary) from the area before washing and 2) use of high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area. In areas of unsanitary conditions (e.g., areas where the congregation of transient populations can reasonably be expected to result in a significant threat to water quality), whenever practicable, Permittees shall collect and divert street and alley wash water from the Permittee's street and sidewalk cleaning public agency activities to the sanitary sewer.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

- **1. Technology Based Effluent Limitations**: Each Permittee shall reduce pollutants in storm water discharges from the MS4 to the maximum extent practicable (MEP).
- 2. Water Quality-Based Effluent Limitations (WQBELs). This Order establishes WQBELs consistent with the assumptions and requirements of all available TMDL waste load allocations assigned to discharges from the Los Angeles County MS4.
 - **a.** Each Permittee shall comply with applicable WQBELs as set forth in Part VI.E of this Order, pursuant to applicable compliance schedules.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Receiving Water Limitations

- 1. Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.
- 2. Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible²², shall not cause or contribute to a condition of nuisance.
- **3.** The Permittees shall comply with Parts V.A.1 and V.A.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications. The storm water management program and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of receiving water limitations persist, notwithstanding implementation of the storm water management program and its components of this Order, the Permittee shall assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:
 - a. Upon a determination by either the Permittee or the Regional Water Board that discharges from the MS4 are causing or contributing to an exceedance of an applicable Receiving Water Limitation, the Permittee shall promptly notify²³ and thereafter submit an Integrated Monitoring Compliance Report (as described in the Program Reporting Requirements, Part XVIII.A.5 of the Monitoring and Reporting Program) to the Regional Water Board for approval. The Integrated

²² Pursuant to 40 CFR § 122.26(a)(3)(vi), a Permittee is only responsible for discharges of storm water and non-storm water from the MS4 for which it is an owner or operator.

²³ Within 30 days of receipt of analytical results from the sampling event.

Monitoring Compliance shall describe the BMPs that are currently being implemented by the Permittee and additional BMPs, including modifications to current BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of receiving water limitations. The Integrated Monitoring Compliance Report shall include an implementation schedule. This Integrated Monitoring Compliance Report shall be incorporated in the annual Storm Water Report unless the Regional Water Board directs an earlier submittal. The Regional Water Board may require modifications to the Integrated Monitoring Compliance Report.

- **b.** The Permittee shall submit any modifications to the Integrated Monitoring Compliance Report required by the Regional Water Board within 30 days of notification.
- **c.** Within 30 days following the Regional Water Board Executive Officer's approval of the Integrated Monitoring Compliance Report, the Permittee shall revise the storm water management program and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an implementation schedule, and any additional monitoring required.
- **d.** The Permittee shall implement the revised storm water management program and its components and monitoring program according to the approved implementation schedule.
- 4. So long as the Permittee has complied with the procedures set forth in Part V.A.3. above and is implementing the revised storm water management program and its components, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Water Board to modify current BMPs or develop additional BMPs.

B. Ground Water Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions. Each Permittee shall comply with all Standard Provisions included in Attachment D of this Order, in accordance with 40 CFR sections 122.41 and 122.42.

2. Legal Authority

a. Each Permittee must establish and maintain adequate legal authority, within its respective jurisdiction, to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize or enable the Permittee to:

- i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit. Grading ordinances must be updated and enforced as necessary to comply with this Order;
- **ii.** Prohibit all non-storm water discharges not otherwise authorized or conditionally exempt pursuant to Part III.A;
- iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4;
- iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
- Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
- vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders;
- vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees;
- **viii.** Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation;
- **ix.** Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4;
- **x.** Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;
- **xi.** Require that structural BMPs are properly operated and maintained; and
- **xii.** Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

- b. Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order. Each Permittee shall submit this certification annually as part of its Annual Report. These statements must include:
 - i. Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR § 122.26(d)(2)(i)(A)-(F) and of this Order; and
 - **ii.** Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.

3. Fiscal Resources

- **a.** Each Permittee shall exercise its full authority to secure the fiscal resources necessary to meet all requirements of this Order.
- **b.** Each Permittee shall include in its Annual Report a description of the source(s) of funds used in the past year, and proposed for the coming year, to meet necessary expenditures on the Permittee's storm water management program.
- **c.** Each Permittee shall conduct a fiscal analysis of the annual capital and operation and maintenance expenditures necessary to implement the requirements of this Order. Each Permittee shall submit its fiscal analysis with its Report of Waste Discharge.

4. Responsibilities of the Permittees

- **a.** Each Permittee is required to comply with the requirements of this Order applicable to discharges within its boundaries. Permittees are not responsible for the implementation of the provisions applicable to other Permittees. Each Permittee shall:
 - i. Comply with the requirements of this Order and any modifications thereto.
 - **ii.** Coordinate among its internal departments and agencies, as necessary, to facilitate the implementation of the requirements of this Order applicable to such Permittees in an efficient and cost-effective manner.
 - iii. Participate in intra-agency coordination (e.g. Planning Department, Fire Department, Building and Safety, Code Enforcement, Public Health, Parks and Recreation, and others) and inter-agency coordination (e.g. co-

Permittees, other NPDES permittees) necessary to successfully implement the provisions of this Order.

5. Public Review

- **a.** All documents submitted to the Regional Water Board in compliance with the terms and conditions of this Order shall be made available to members of the public pursuant to the Freedom of Information Act (5 U.S.C. § 552 (as amended)) and the Public Records Act (Cal. Government Code § 6250 et seq.).
- **b.** All documents submitted to the Regional Water Board Executive Officer for approval shall be made available to the public for a 30-day period to allow for public comment.

6. Regional Water Board Review

Any formal determination or approval made by the Regional Water Board Executive Officer pursuant to the provisions of this Order may be reviewed by the Regional Water Board. A Permittee(s) or a member of the public may request such review upon petition within 30 days of the effective date of the notification of such decision to the Permittee(s) and interested parties on file at the Regional Water Board.

7. Reopener and Modification

- **a.** This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64. Causes for taking such actions include, but are not limited to:
 - i. Endangerment to human health or the environment resulting from the permitted activity, including information that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses;
 - **ii.** Acquisition of newly-obtained information that would have justified the application of different conditions if known at the time of Order adoption;
 - **iii.** To address changed conditions identified in required reports or other sources deemed significant by the Regional Water Board;
 - **iv.** To incorporate provisions as a result of future amendments to the Basin Plan, such as a new or revised water quality objective or the adoption or reconsideration of a TMDL;
 - v. To incorporate provisions as a result of new or amended statewide water quality control plans or policies adopted by the State Water Board;

- vi. To incorporate provisions as a result of the promulgation of new or amended federal or state laws or regulations, USEPA guidance concerning regulated activities, or judicial decisions that becomes effective after adoption of this Order.
- vii. To incorporate effluent limitations for toxic constituents determined to be present in significant amount in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis; and/or
- **viii.** In accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new Minimum Levels (MLs).
- **b.** After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - i. Violation of any term or condition contained in this Order;
 - **ii.** Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; or
 - **iii.** A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- **c.** The filing of a request by a Permittee for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- **d.** This Order may be modified to make corrections or allowances for changes in the permitted activity, following the procedures at 40 CFR section 122.63, if processed as a minor modification. Minor modifications may only:
 - i. Correct typographical errors; or
 - ii. Require more frequent monitoring or reporting by a Permittee.
- 8. Any discharge of waste to any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of this Order.
- **9.** A copy of this Order shall be maintained by each Permittee so as to be available during normal business hours to Permittee employees responsible for implementation of the provisions of this Order and members of the public.
- **10.** The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream that may ultimately be released to waters of the United States, is prohibited, unless specifically authorized elsewhere in this

Order or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

- **11.** The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.
- **12.**Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
- **13.** If there is any storage of hazardous or toxic materials or hydrocarbons at a facility owned and/or operated by a Permittee and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

14. Enforcement

- **a.** Violation of any of the provisions of this Order may subject the violator to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- b. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges through the MS4 to receiving waters, may subject a Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject a Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- **c.** The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.
- d. California Water Code section 13385(h)(1) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each serious violation. Pursuant to California Water Code section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to California Water Code section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report

required pursuant to Section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

- e. California Water Code section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.
- f. Pursuant to California Water Code section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim, and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.
- **g.** Unlike subdivision (c) of California Water Code section 13385, where violations of effluent limitations may be assessed administrative civil liability on a per day basis, the mandatory minimum penalties provisions identified above require the Regional Water Board to assess mandatory minimum penalties for "each violation" of an effluent limitation. Some water quality-based effluent limitations in Attachments L through R of this Order (e.g., trash, as described immediately below) are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year.

h. Trash TMDLs.

i. Consistent with the 2009 amendments to Order No. 01-182 to incorporate the Los Angeles River Trash TMDL, the water quality-based effluent limitations in Attachments L through R of this Order for trash are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year. Trash is considered a Group I pollutant, as specified in Appendix A to 40 CFR section 123.45. Therefore, each annual violation of a trash effluent limitation in Attachments L through R of this Order by forty percent or more would be considered a "serious violation" under California Water Code section 13385(h). With respect to the final effluent limitation of zero trash, any detectable discharge of trash necessarily is a serious violation, in accordance with the State Water Board's Enforcement Policy. Violations of the effluent limitations in Attachments L through R of this Order would not constitute "chronic" violations that would give rise to mandatory liability under California

Water Code section 13385(i) because four or more violations of the effluent limitations subject to a mandatory penalty cannot occur in a period of six consecutive months.

- **ii.** For the purposes of enforcement under California Water Code section 13385, subdivisions (a), (b), and (c), not every storm event may result in trash discharges. In trash TMDLs adopted by the Regional Water Board, the Regional Water Board states that improperly deposited trash is mobilized during storm events of greater than 0.25 inches of precipitation. Therefore, violations of the effluent limitations are limited to the days of a storm event of greater than 0.25 inches. Once a Permittee has violated the annual effluent limitation, any subsequent discharges of trash during any day of a storm event of greater than 0.25 inches during the same storm year constitutes an additional "day in which the violation [of the effluent limitation] occurs".
- **15.** This Order does not exempt any Permittee from compliance with any other laws, regulations, or ordinances that may be applicable.
- **16.** The provisions of this Order are severable. If any provisions of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected.

B. Monitoring and Reporting Program (MRP) Requirements

Dischargers shall comply with the MRP and future revisions thereto, in Attachment E of this Order.

C. Watershed Management Programs

1. General

- a. The purpose of this Part VI.C is to allow Permittees the flexibility to develop Watershed Management Programs to implement the requirements of this Order on a watershed scale through customized strategies, control measures, and BMPs.
- b. Participation in a Watershed Management Program is voluntary and allows a Permittee to customize the requirements in Part VI.D (Minimum Control Measures) to address the highest watershed priorities, including achieving compliance with the requirements of Part VI.E (Total Maximum Daily Load Provisions) and Attachments L through R.
- c. Customized strategies, control measures, and BMPs shall be implemented on a watershed basis, where applicable, through each Permittee's storm water management program and/or collectively by all participating Permittees through a Watershed Management Program.

- **d.** The goal of the Watershed Management Programs is to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable water quality-based effluent limitations in Part VI.E and Attachments L through R, (ii) do not cause or contribute to exceedances of receiving water limitations in Parts V.A and VI.E and Attachments L through R, and (iii) do not cause exceedances of non-storm water action levels in Attachment G.
- e. Watershed Management Programs shall be developed using the Regional Water Board's Watershed Management Areas (WMAs). Where appropriate, WMAs may be separated into subwatersheds to focus water quality prioritization and implementation efforts by receiving water.
- f. Each Watershed Management Program shall:
 - i. Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each WMA,
 - **ii.** Identify and implement strategies, control measures, and BMPs to achieve applicable water quality-based effluent limitations, receiving water limitations, and/or non-storm water action levels consistent with corresponding compliance schedules in this Order,
 - **iii.** Execute an integrated monitoring program and assessment program pursuant to the Attachment E MRP, Part IV to determine progress towards achieving applicable limitations and/or action levels in Attachment G, and
 - iv. Revise strategies, control measures, and BMPs as necessary to maintain progress towards achieving applicable limitations and/or action levels in Attachment G.

2. Process

- **a.** Timelines for Implementation
 - **i.** Each Permittee shall ensure implementation of the following requirements per the schedule specified in Table 9 below:

Table 9. Watershed Management Program Implementation Requirements

Part	Provision	Due Date
VI.C.2.b	Notify Regional Water Board of intent to develop Watershed Management Program	6 months after Order effective date
VI.C.2.b	Submit draft plan to Regional Water Board Executive Officer	1 year after Order effective date

VI.C.2.c	Submit final plan to Regional Water Board Executive Officer	3 months after receipt of Regional Water Board comments on draft plan
VI.C.4	Begin implementation of Watershed Management Program	Upon submittal of final plan
VI.C.6.a.ii	Evaluation of Watershed Management Program and submittal of revisions to plan	Annually, beginning in 2015

- **b.** Permittees that elect to develop a Watershed Management Program must notify the Regional Water Board no later than six months after the effective date of this Order.
- **c.** Permittees that elect to develop a Watershed Management Program shall submit a draft plan to the Regional Water Board Executive Officer no later than 1 year after the effective date of this Order.
- **d.** Permittees that do not elect to develop a Watershed Management Program shall be subject to the baseline requirements in Part VI.D and shall demonstrate compliance with applicable interim water quality-based effluent limitations in Part VI.E pursuant to subparts VI.E.2.d.i.(1)-(3).

3. Program Development

a. Identification of Water Quality Priorities

Permittees shall identify the water quality priorities within each WMA that will be addressed by the Watershed Management Program. At a minimum, these priorities shall include achieving applicable water quality-based effluent limitations and/or receiving water limitations established pursuant to TMDLs, as set forth in Part VI.E and Attachments L through R of this Order.

- i. Water Quality Characterization. Each plan shall include an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality, to support identification and prioritization/sequencing of management actions.
- **ii.** Water Body-Pollutant Classification. On the basis of the evaluation of existing water quality conditions, water body-pollutant combinations shall be classified into one of the following three categories:
 - (1) Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water

limitations are established in Part VI.E and Attachments L through R of this Order.

- (2) Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy).
- (3) Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable water quality standards.
- **iii.** Source Assessment. Utilizing existing information, potential sources within the watershed for the water body-pollutant combinations in Categories 1 and 2 shall be identified.
 - (1) Permittees shall identify known and suspected storm water and nonstorm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the highest water quality priorities (Categories 1 and 2). The identification of known and suspected sources of the highest water quality priorities shall consider the following:
 - (a) Review of available data, including but not limited to:
 - (i) Findings from the Permittees' Illicit Connections and Illicit Discharge Elimination Programs;
 - (ii) Findings from the Permittees' Industrial/Commercial Facilities Programs;
 - (iii) Findings from the Permittees' Development Construction Programs;
 - (iv) Findings from the Permittees' Public Agency Activities Programs;
 - (v) TMDL source investigations;
 - (vi) Watershed model results;
 - (vii) Findings from the Permittees' monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and

- (viii) Any other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities.
- (b) Locations of the Permittees' MS4s, including, at a minimum, all MS4 major outfalls and major structural controls for storm water and non-storm water that discharge to receiving waters.
- (c) Other known and suspected sources of pollutants in non-storm water or storm water discharges from the MS4 to receiving waters within the WMA.
- **iv.** Prioritization. Based on the findings of the source assessment, the issues within each watershed shall be prioritized and sequenced. Watershed priorities shall include at a minimum:
 - (1) TMDLs
 - (a) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term, or TMDL compliance deadlines that have already passed and limitations have not been achieved.
 - (b) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines between September 6, 2012 and October 25, 2017.
 - (2) Other Receiving Water Considerations
 - (a) Controlling pollutants for which data indicate impairment in the receiving water and the findings from the source assessment implicates discharges from the MS4 shall be considered the second highest priority.
- **b.** Selection of Watershed Control Measures
 - i. Permittees shall identify strategies, control measures, and BMPs to implement through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities.
 - ii. The objectives of the Watershed Control Measures shall include:
 - (1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.

- (2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- (3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.
- iii. Watershed Control Measures may include:
 - Structural and/or non-structural controls and operation and maintenance procedures that are designed to achieve applicable water quality-based effluent limitations, receiving water limitations in Part VI.E and/or Attachments L through R;
 - (2) Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional or sub-regional controls or management measures; and
 - (3) Stream and/or habitat rehabilitation or restoration projects where stream and/or habitat rehabilitation or restoration are necessary for, or will contribute to demonstrable improvements in the physical, chemical, and biological receiving water conditions and restoration and/or protection of water quality standards in receiving waters.
- **iv.** The following provisions of this Order shall be incorporated as part of the Watershed Management Program:
 - (1) Minimum Control Measures.
 - (a) Permittees shall assess the minimum control measures (MCMs) as defined in Part VI.D.4 to Part VI.D.9 of this Order to identify opportunities for focusing resources on the high priority issues in each watershed. For each of the following minimum control measures, Permittees shall identify potential modifications that will address watershed priorities:
 - (i) Planning and Land Development Program
 - (ii) Development Construction Program
 - (iii) Industrial/Commercial Facilities Program
 - (iv) Illicit Connection and Illicit Discharges Detection and Elimination Program
 - (v) Public Agency Activities Program
 - (vi) Public Information and Participation Program

- (b) At a minimum, the Watershed Management Program shall include management programs consistent with 40 CFR section 122.26(d)(2)(iv)(A)-(D).
- (c) If the Permittee(s) elects to eliminate a control measure identified in Part VI.D.4 to Part VI.D.9, the Permittee(s) shall provide a justification for its elimination.
- (d) Such customized actions, once approved as part of the Watershed Management Program, shall replace in part or in whole the requirements in Part VI.D.4 to Part VI.D.9 for participating Permittees.
- (2) Non-Storm Water Discharge Measures. Where Permittees identify non-storm water discharges from the MS4 as a source of pollutants in the source assessment, the Watershed Control Measures shall include strategies, control measures, and/or BMPs that must be implemented to effectively eliminate the source of pollutants consistent with Parts III.A and VI.D.9. These may include measures to prohibit the nonstorm water discharge to the MS4, additional BMPs to reduce pollutants in the non-storm water discharge or conveyed by the nonstorm water discharge, diversion to a sanitary sewer for treatment, or strategies to require the non-storm water discharge to be separately regulated under a general NPDES permit.
- (3) TMDL Control Measures. Permittees shall compile control measures that have been identified in TMDLs and corresponding implementation plans. If not sufficiently identified in previous documents, or if implementation plans have not yet been developed (e.g., USEPA established TMDLs), the Permittees shall evaluate and identify control measures to achieve water quality-based effluent limitations and/or receiving water limitations established in this Order pursuant to these TMDLs.
 - (a) TMDL control measures shall include where necessary control measures to address both storm water and non-storm water discharges from the MS4.
 - (b) TMDL control measures may include baseline or customized activities covered under the general MCM categories in Part VI.D as well as BMPs and other control measures covered under the non-storm water discharge provisions of Part III.A of this Order.
 - (c) The plan shall include, at a minimum, those actions that will be implemented during the permit term to achieve interim and/or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines within the permit term.

- (4) Each plan shall include the following components:
 - (a) Identification of specific structural controls and non-structural best management practices, including operational source control and pollution prevention, and any other actions or programs to achieve all water quality-based effluent limitations and receiving water limitations contained in this Part VI.E and Attachments L through R to which the Permittee(s) is subject;
 - (b) For each structural control and non-structural best management practice, the number, type, and location(s) and/or frequency of implementation;
 - (c) For any pollution prevention measures, the nature, scope, and timing of implementation;
 - (d) For each structural control and non-structural best management practice, interim milestones and dates for achievement to ensure that TMDL compliance deadlines will be met; and
 - (e) The plan shall clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures.
- (5) Permittees shall conduct a Reasonable Assurance Analysis for each TMDL as follows:
 - (a) Permittees shall conduct an assessment (through a quantitative analysis / modeling effort) to demonstrate that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term.
 - (b) Where the TMDL Provisions in Part VI.E and Attachments L through R do not include interim or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term, Permittees shall identify interim milestones and dates for their achievement to ensure adequate progress toward achieving interim and final water quality-based effluent limitations and/or receiving water limitations with deadlines beyond the permit term.
- (6) Permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures.
- c. Compliance Schedules

Permittees shall incorporate compliance schedules in Attachments L through R into the plan and, where necessary develop interim milestones and dates for their achievement. Compliance schedules and interim milestones and dates for their achievement shall be used to measure progress towards addressing the highest water quality priorities and achieving applicable water quality-based effluent limitations and/or receiving water limitations.

- i. Schedules must be adequate for measuring progress on a watershed scale twice during the permit term.
- **ii.** Schedules must be developed for both the strategies, control measures and BMPs implemented by each Permittee within its jurisdiction and for those that will be implemented by multiple Permittees on a watershed scale.
- iii. Schedules shall incorporate the following:
 - (1) Compliance deadlines occurring within the permit term for all applicable interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R of this Order,
 - (2) Interim milestones and dates for their achievement within the permit term for any applicable final water quality-based effluent limitation and/or receiving water limitation in Part VI.E and Attachments L through R, where deadlines within the permit term are not otherwise specified.
 - (3) For watershed priorities related to addressing exceedances of receiving water limitations in Part V.A and not otherwise addressed by Part VI.E:
 - (a) Milestones based on measureable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,
 - (b) A schedule with dates for achieving the milestones as soon as possible, and
 - (c) A final date for achieving the receiving water limitations within the permit term.
 - (d) The milestones and implementation schedule in (a)-(c) fulfill the requirements in Part V.A.3.a to prepare an Integrated Monitoring Compliance Report.

4. Watershed Management Program Implementation

Each Permittee shall implement the Watershed Management Program immediately upon approval of the plan by the Regional Water Board Executive Officer.

5. Integrated Watershed Monitoring and Assessment

Permittees in each WMA shall develop an integrated monitoring program and assessment program as set forth in Part IV of the MRP (Attachment E) to assess progress toward achieving the water quality-based effluent limitations and/or receiving water limitations per the compliance schedules, and progress toward addressing the highest water quality priorities for each WMA.

6. Adaptive Management Process

- a. Watershed Management Program Adaptive Management Process
 - i. Permittees in each WMA shall implement an adaptive management process, annually during the permit term, beginning in 2015, adapting the Watershed Management Program to become more effective, based on, but not limited to the following:
 - Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R, according to established compliance schedules;
 - (2) Progress toward achieving improved water quality in MS4 discharges and achieving receiving waters limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;
 - (3) Achievement of interim milestones;
 - (4) Re-evaluation of the highest water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;
 - (5) Availability of new information and data from sources other than the Permittees' monitoring program(s) within the WMA that informs the effectiveness of the actions implemented by the Permittees;
 - (6) Regional Water Board recommendations; and
 - (7) Recommendations for modifications to the Watershed Management Program solicited through a public participation process.
 - **ii.** Based on the results of the adaptive management process, Permittees shall report any modifications, including where appropriate new compliance deadlines and interim milestones, necessary to improve the effectiveness of the Watershed Management Program in the Annual Report, as required pursuant to Part XVIII.A.6 of the MRP (Attachment E), and as part of the

Report of Waste Discharge (ROWD) required pursuant to Part II.B of Attachment D – Standard Provisions.

- (1) The adaptive management process fulfills the requirements in Part V.A.4 to address continuing exceedances of receiving water limitations.
- **iii.** Permittees shall implement any modifications to the Watershed Management Program upon approval by the Regional Water Board Executive Officer or within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.
- **b.** Jurisdictional Storm Water Management Program Adaptive Management Process
 - i. Permittees in the WMA shall implement the adaptive management process at least annually with regard to its jurisdictional storm water management program to improve its effectiveness, based on, but not limited to the following:
 - (1) Measurable or demonstrable reductions of illicit discharges to the MS4 based on an evaluation of outfall-based monitoring data;
 - (2) Measurable or demonstrable reductions of pollutants in storm water discharges from the Permittee's MS4 through implementation of the storm water management program based on an evaluation of outfall-based monitoring data;
 - (3) Efficiency in implementing the Watershed Management Program;
 - (4) Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R, according to established compliance schedules;
 - (5) Progress toward achieving receiving waters limitations through implementation of the storm water management program based on an evaluation of outfall-based monitoring data and receiving water monitoring data; and
 - (6) Regional Water Board recommendations during program and/or site inspections.
 - **ii.** Based on the results of the adaptive management process, the Permittee shall report any modifications, including where appropriate new compliance deadlines or interim milestones, necessary to improve the effectiveness its jurisdictional storm water management program in the Annual Report, as required pursuant to Part XVIII.A.6 of the MRP (Attachment E), and as part of

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the ROWD required pursuant to Part II.B (Attachment D – Standard Provisions).

- (1) The adaptive management process fulfills the requirements in Part V.A.4 to address continuing exceedances of receiving water limitations.
- iii. The Permittee shall implement any modifications to its jurisdictional storm water management program upon acceptance by the Regional Water Board Executive Officer or within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.

D. Storm Water Management Program Minimum Control Measures

1. General Requirements

- a. Each Permittee shall implement the requirements in Parts VI.D.4 through VI.D.9 below, or may in lieu of the requirements in Parts VI.D.4 through VI.D.9 implement customized actions within each of these general categories of control measures as set forth in an approved Watershed Management Program per Part VI.C. Implementation shall be consistent with the requirements of 40 CFR § 122.26(d)(2)(iv).
- **b.** Timelines for Implementation
 - i. Unless otherwise noted in Part VI.D, each Permittee shall ensure implementation of the requirements contained in Part VI.D within 30 days after the effective date of this Order.

2. Progressive Enforcement and Interagency Coordination

- a. Each Permittee shall develop and implement a Progressive Enforcement Policy to ensure that (1) regulated Industrial/Commercial facilities, (2) construction sites, (3) development and redevelopment sites with post-construction controls, and (4) illicit discharges are each brought into compliance with all storm water and non-storm water requirements within a reasonable time period as specified below.
 - i. Follow-up Inspections

In the event that a Permittee determines, based on an inspection or illicit discharge investigation conducted, that a facility or site operator has failed to adequately implement all necessary BMPs, that Permittee shall take progressive enforcement actions which, at a minimum, shall include a follow-up inspection within 4 weeks from the date of the initial inspection and/or investigation.

ii. Enforcement Action

In the event that a Permittee determines that a facility or site operator has failed to adequately implement BMPs after a follow-up inspection, that Permittee shall take enforcement action as established through authority in its

municipal code and ordinances, through the judicial system, or refer the case to the Regional Water Board, per the Interagency Coordination provisions below.

iii. Records Retention

Each Permittee shall maintain records and make them available on request to the Regional Water Board, including inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating a good faith effort to bring facilities into compliance.

iv. Referral of Violations of Municipal Ordinances and California Water Code § 13260

A Permittee may refer a violation(s) of its municipal storm water ordinances and/or California Water Code section 13260 by Industrial and Commercial facilities and construction site operators to the Regional Water Board provided that the Permittee has made a good faith effort of applying its Progressive Enforcement Policy to achieve compliance with its own ordinances. At a minimum, a Permittee's good faith effort must be documented with:

(1) Two follow-up inspections, and

(2) Two warning letters or notices of violation.

v. Referral of Violations of the Industrial and Construction General Permits, including Requirements to File a Notice of Intent or No Exposure Certification

For those facilities or site operators in violation of municipal storm water ordinances and subject to the Industrial and/or Construction General Permits, Permittees may escalate referral of such violations to the Regional Water Board (promptly via telephone or electronically) after one inspection and one written notice of violation (copied to the Regional Water Board) to the facility or site operator regarding the violation. In making such referrals, Permittees shall include, at a minimum, the following documentation:

(1) Name of the facility or site,

- (2) Operator of the facility or site,
- (3) Owner of the facility or site,
- (4) WDID Number (if applicable),
- (5) Records of communication with the facility/site operator regarding the violation, which shall include at least one inspection report,
- (6) The written notice of violation (copied to the Regional Water Board),
- (7) For industrial sites, the industrial activity being conducted at the facility that is subject to the Industrial General Permit, and
- (8) For construction sites, site acreage and Risk Factor rating.
- b. Investigation of Complaints Transmitted by the Regional Water Board Staff

Each Permittee shall initiate, within one business day,²⁴ investigation of complaints from facilities within its jurisdiction. The initial investigation shall include, at a minimum, a limited inspection of the facility to confirm validity of the complaint and to determine if the facility is in compliance with municipal storm water ordinances and, if necessary, to oversee corrective action.

c. Assistance with Regional Water Board Enforcement Actions

As directed by the Regional Water Board Executive Officer, Permittees shall assist Regional Water Board enforcement actions by:

- i. Assisting in identification of current owners, operators, and lessees of properties and sites.
- **ii.** Providing staff, when available, for joint inspections with Regional Water Board inspectors.
- **iii.** Appearing to testify as witnesses in Regional Water Board enforcement hearings.
- **iv.** Providing copies of inspection reports and documentation demonstrating application of its Progressive Enforcement Policy.

3. Modifications/Revisions

a. Each Permittee shall modify its storm water management programs, protocols, practices, and municipal codes to make them consistent with the requirements in this Order.

4. Public Information and Participation Program

a. General

- i. Each Permittee shall implement a Public Information and Participation Program (PIPP) that includes, but is not limited to, the requirements listed in this Part VI.D.4. Each Permittee shall be responsible for developing and implementing the PIPP and implementing specific PIPP requirements. The objectives of the PIPP are as follows:
 - (1) To measurably increase the knowledge of the target audiences about the MS4, the adverse impacts of storm water pollution on receiving waters and potential solutions to mitigate the impacts.
 - (2) To measurably change the waste disposal and storm water pollution generation behavior of target audiences by developing and encouraging the implementation of appropriate alternatives.

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²⁴ Permittees may comply with the Permit by taking initial steps (such as logging, prioritizing, and tasking) to "initiate" the investigation within that one business day. However, the Regional Water Board would expect that the initial investigation, including a site visit, to occur within four business days.

(3) To involve and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of storm water pollution.

b. PIPP Implementation

- i. Each Permittee shall implement the PIPP requirements listed in this Part VI.D.4 using one or more of the following approaches:
 - (1) By participating in a County-wide PIPP,
 - (2) By participating in one or more Watershed Group sponsored PIPPs, and/or
 - (3) Or individually within its jurisdiction.
- **ii.** If a Permittee participates in a County-wide or Watershed Group PIPP, the Permittee shall provide the contact information for their appropriate staff responsible for storm water public education activities to the designated PIPP coordinator and contact information changes no later than 30 days after a change occurs.

c. Public Participation

- i. Each Permittee, whether participating in a County-wide or Watershed Group sponsored PIPP, or acting individually, shall provide a means for public reporting of clogged catch basin inlets and illicit discharges/dumping, faded or missing catch basin labels, and general storm water and non-storm water pollution prevention information.
 - (1) Permittees may elect to use the 888-CLEAN-LA hotline as the general public reporting contact or each Permittee or Watershed Group may establish its own hotline, if preferred.
 - (2) Each Permittee shall include the reporting information, updated when necessary, in public information, and the government pages of the telephone book, as they are developed or published.
 - (3) Each Permittee shall identify staff or departments who will serve as the contact person(s) and shall make this information available on its website.
 - (4) Each Permittee is responsible for providing current, updated hotline contact information to the general public within its jurisdiction.
- **ii.** Organize events targeted to residents and population subgroups to educate and involve the community in storm water and non-storm water pollution prevention and clean-up (e.g., education seminars, clean-ups, and community catch basin stenciling).

d. Residential Outreach Program

i. Working in conjunction with a County-wide or Watershed Group sponsored PIPP or individually, each Permittee shall implement the following activities:

- (1) Conduct storm water pollution prevention public service announcements and advertising campaigns
- (2) Public education materials shall include but are not limited to information on the proper handling (i.e., disposal, storage and/or use) of:
 - (a) Vehicle waste fluids
 - (b) Household waste materials (i.e., trash and household hazardous waste, including personal care products and pharmaceuticals)
 - (c) Construction waste materials
 - (d) Pesticides and fertilizers (including integrated pest management practices [IPM] to promote reduced use of pesticides)
 - (e) Green waste (including lawn clippings and leaves)
 - (f) Animal wastes
- (3) Distribute activity specific storm water pollution prevention public education materials at, but not limited to, the following points of purchase:
 - (a) Automotive parts stores
 - (b) Home improvement centers / lumber yards / hardware stores
 - (c) Landscaping / gardening centers
 - (d) Pharmacies
 - (e) Pet shops / feed stores
- (4) Maintain storm water websites or provide links to storm water websites via the Permittee's website, which shall include educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities listed in Part VI.D.4.
- (5) Provide independent, parochial, and public schools within in each Permittee's jurisdiction with materials to educate school children (K-12) on storm water pollution. Material may include videos, live presentations, and other information. Permittees are encouraged to work with, or leverage, materials produced by other statewide agencies and associations such as the State Water Board's "Erase the Waste" educational program and the California Environmental Education Interagency Network (CEEIN) to implement this requirement.
- (6) When implementing activities in subsections (1)-(5), Permittees shall use effective strategies to educate and involve ethnic communities in storm water pollution prevention through culturally effective methods.

5. Industrial/Commercial Facilities Program

a. General

i. Each Permittee shall implement an Industrial / Commercial Facilities Program that meets the requirements of this Part VI.D.5. The Industrial / Commercial

Facilities Program shall be designed to prevent illicit discharges into the MS4 and receiving waters, reduce industrial / commercial discharges of storm water to the maximum extent practicable, and prevent industrial / commercial discharges from the MS4 from causing or contributing to a violation of receiving water limitations. At a minimum, the Industrial / Commercial Facilities Program shall be implemented in accordance with the requirements listed in this Part VI.D.5, or as approved in a Watershed Management Program per Part VI.C. Minimum program components shall include the following components:

- (1) Track
- (2) Educate
- (3) Inspect
- (4) Ensure compliance with municipal ordinances at industrial and commercial facilities that are critical sources of pollutants in storm water

b. Track Critical Industrial / Commercial Sources

- i. Each Permittee shall maintain an updated watershed-based inventory or database containing the latitude / longitude coordinates of all industrial and commercial facilities within its jurisdiction that are critical sources of storm water pollution. The inventory or database shall be maintained in electronic format and incorporation of facility information into a Geographical Information System (GIS) is recommended. Critical Sources to be tracked are summarized below:
 - (1) Commercial Facilities
 - (a) Restaurants
 - (b) Automotive service facilities (including those located at automotive dealerships)
 - (c) Retail Gasoline Outlets
 - (d) Nurseries and Nursery Centers (Merchant Wholesalers, Nondurable Goods, and Retail Trade)
 - (2) USEPA "Phase I" Facilities [as specified in 40 CFR §122.26(b)(14)(i)-(xi)]
 - (3) Other federally-mandated facilities [as specified in 40 CFR §122.26(d)(2)(iv)(C)]
 - (a) Municipal landfills
 - (b) Hazardous waste treatment, disposal, and recovery facilities
 - (c) Industrial facilities subject to section 313 "Toxic Release Inventory" reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [42 U.S.C. § 11023]
 - (4) All other commercial or industrial facilities that the Permittee determines may contribute a substantial pollutant load to the MS4.

- **ii.** Each Permittee shall include the following minimum fields of information for each critical source industrial and commercial facility identified in its watershed-based inventory or database:
 - (1) Name of facility
 - (2) Name of owner/ operator and contact information
 - (3) Address of facility (physical and mailing)
 - (4) North American Industry Classification System (NAICS) code
 - (5) Standard Industrial Classification (SIC) code
 - (6) A narrative description of the activities performed and/or principal products produced
 - (7) Status of exposure of materials to storm water
 - (8) Name of receiving water
 - (9) Identification of whether the facility is tributary to a CWA § 303(d) listed water body segment or water body segment subject to a TMDL, where the facility generates pollutants for which the water body segment is impaired.
 - (10) Ability to denote if the facility is known to maintain coverage under the State Water Board's General NPDES Permit for the Discharge of Stormwater Associated with Industrial Activities (Industrial General Permit) or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.
 - (11) Ability to denote if the facility has filed a No Exposure Certification with the State Water Board.
- **iii.** Each Permittee shall update its inventory of critical sources at least annually. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter- and intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer connection permits, and similar information).

c. Educate Industrial / Commercial Sources

- i. At least once during the five-year period of this Order, each Permittee shall notify the owner/operator of each of its inventoried commercial and industrial sites identified in Part VI.D.5.b of the BMP requirements applicable to the site/source.
- ii. Business Assistance Program
 - (1) Each Permittee shall implement a Business Assistance Program to provide technical information to businesses to facilitate their efforts to reduce the discharge of pollutants in storm water. Assistance shall be targeted to select business sectors or small businesses upon a

determination that their activities may be contributing substantial pollutant loads to the MS4 or receiving water. Assistance may include technical guidance and provision of educational materials. The Program may include:

- (a) On-site technical assistance, telephone, or e-mail consultation regarding the responsibilities of business to reduce the discharge of pollutants, procedural requirements, and available guidance documents.
- (b) Distribution of storm water pollution prevention educational materials to operators of auto repair shops; car wash facilities; restaurants and mobile sources including automobile/equipment repair, washing, or detailing; power washing services; mobile carpet, drape, or upholstery cleaning services; swimming pool, water softener, and spa services; portable sanitary services; and commercial applicators and distributors of pesticides, herbicides and fertilizers, if present.

d. Inspect Critical Commercial Sources

i. Frequency of Mandatory Commercial Facility Inspections

Each Permittee shall inspect all commercial facilities identified in Part VI.D.5.b twice during the 5-year term of the Order, provided that the first mandatory compliance inspection occurs no later than 2 years after the effective date of this Order. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. In addition, each Permittee shall implement the activities outlined in the following subparts.

ii. Scope of Mandatory Commercial Facility Inspections

Each Permittee shall inspect all commercial facilities to confirm that storm water and non-storm water BMPs are being effectively implemented in compliance with municipal ordinances. At each facility, inspectors shall verify that the operator is implementing effective source control BMPs for each corresponding activity. Each Permittee shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA), a water body subject to TMDL provisions in Part VI.E, or a CWA § 303(d) listed impaired water body. Likewise, for those BMPs that are not adequately protective of water quality standards, a Permittee may require additional site-specific controls.

e. Inspect Critical Industrial Sources

Each Permittee shall conduct industrial facility compliance inspections as specified below.

- i. Frequency of Mandatory Industrial Facility Compliance Inspections
 - (1) Minimum Inspection Frequency

Each Permittee shall perform an initial mandatory compliance inspection at all industrial facilities identified in Part VI.D.5.b no later than 2 years after the effective date of this Order. After the initial inspection, all facilities that have not filed a No Exposure Certification with the State Water Board are subject to a second mandatory compliance inspection. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. A facility need not be inspected more than twice during the term of the Order unless subject to an enforcement action as specified in Part VI.D.5.h below.

(2) Exclusion of Facilities Previously Inspected by the Regional Water Board

Each Permittee shall review the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) database²⁵ at defined intervals to determine if an industrial facility has recently been inspected by the Regional Water Board. The first interval shall occur approximately 2 years after the effective date of the Order. The Permittee does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period. The second interval shall occur approximately 4 years after the effective date of the Order. Likewise, the Permittee does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period.

(3) No Exposure Verification

As a component of the first mandatory inspection, each Permittee shall identify those facilities that have filed a No Exposure Certification with the State Water Board. Approximately 3 to 4 years after the effective date of the Order, each Permittee shall evaluate its inventory of industrial facilities and perform a second mandatory compliance inspection at a minimum of 25% of the facilities identified to have filed a No Exposure Certification. The purpose of this inspection is to verify the continuity of the no exposure status.

(4) Exclusion Based on Watershed Management Program

A Permittee is exempt from the mandatory inspection frequencies listed above if it is implementing industrial inspections in accordance with an approved Watershed Management Program per Part VI.C.

ii. Scope of Mandatory Industrial Facility Inspections

Each Permittee shall confirm that each industrial facility:

- (1) Has a current Waste Discharge Identification (WDID) number for coverage under the Industrial General Permit, and that a Storm Water Pollution Prevention Plan (SWPPP) is available on-site; *or*
- (2) Has applied for, and has received a current No Exposure Certification for facilities subject to this requirement;

²⁵ SMARTS is accessible at https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

- (3) Is effectively implementing BMPs in compliance with municipal ordinances. Facilities must implement the source control BMPs identified in Table 10, unless the pollutant generating activity does not occur. The Permittees shall require implementation of additional BMPs where storm water from the MS4 discharges to an environmentally sensitive area, a water body subject to TMDL Provisions in Part VI.E, or a CWA § 303(d) listed impaired water body. Likewise, if the specified BMPs are not adequately protective of water quality standards, a Permittee may require additional site-specific controls.
- (4) Applicable industrial facilities identified as not having either a current WDID or No Exposure Certification shall be notified that they must obtain coverage under the Industrial General Permit and shall be referred to the Regional Water Board per the Progressive Enforcement Policy procedures identified in Part VI.D.2.

f. Source Control BMPs for Commercial and Industrial Facilities

Effective source control BMPs for the activities listed in Table 10 shall be implemented at commercial and industrial facilities, unless the pollutant generating activity does not occur:

Pollutant-Generating Activity	BMP Narrative Description
Unauthorized Non-Storm	Effective elimination of non-storm water
water Discharges	discharges
Accidental Spills/ Leaks	Implementation of effective spills/ leaks
	prevention and response procedures
Vehicle/ Equipment Fueling	Implementation of effective fueling source
	control devices and practices
	Implementation of effective equipment/ vehicle
Vehicle/ Equipment Cleaning	cleaning practices and appropriate wash water
	management practices
Vehicle/ Equipment Repair	Implementation of effective vehicle/ equipment
	repair practices and source control devices
Outdoor Liquid Storage	Implementation of effective outdoor liquid
	storage source controls and practices
Outdoor Equipment	Implementation of effective outdoor equipment
Operations	source control devices and practices
Outdoor Storage of Raw	Implementation of effective source control
Materials	practices and structural devices
Storage and Handling of Solid Waste	Implementation of effective solid waste storage/
	handling practices and appropriate control
	measures
Building and Grounds	Implementation of effective facility maintenance
Maintenance	practices

Table 10. Source Control BMPs at Commercial and Industrial Facilities

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Pollutant-Generating Activity	BMP Narrative Description
Parking/ Storage Area Maintenance	Implementation of effective parking/ storage area designs and housekeeping/ maintenance practices
Storm water Conveyance System Maintenance Practices	Implementation of proper conveyance system operation and maintenance protocols
Pollutant-Generating	BMP Narrative Description from
Activity	Regional Water Board Resolution No. 98-08
Sidewalk Washing	 Remove trash, debris, and free standing oil/grease spills/leaks (use absorbent material, if necessary) from the area before washing; and Use high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area.
Street Washing	Collect and divert wash water to the sanitary sewer – publically owned treatment works (POTW). Note: POTW approval may be needed.

g. Significant Ecological Areas (SEAs)

For critical sources that discharge to MS4s that discharge to SEAs, each Permittee shall require operators to implement additional pollutant-specific controls to reduce pollutants in storm water runoff that are causing or contributing to exceedances of water quality standards.

h. Progressive Enforcement

Each Permittee shall implement its Progressive Enforcement Policy to ensure that Industrial / Commercial facilities are brought into compliance with all storm water requirements within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

6. Planning and Land Development Program

a. Purpose

- i. Each Permittee shall implement a Planning and Land Development Program pursuant to Part VI.D.6.b for all New Development and Redevelopment projects subject to this Order to:
 - (1) Lessen the water quality impacts of development by using smart growth practices such as compact development, directing development towards

existing communities via infill or redevelopment, and safeguarding of environmentally sensitive areas.

- (2) Minimize the adverse impacts from storm water runoff on the biological integrity of Natural Drainage Systems and the beneficial uses of water bodies in accordance with requirements under CEQA (Cal. Pub. Resources Code § 21000 et seq.).
- (3) Minimize the percentage of impervious surfaces on land developments by minimizing soil compaction during construction, designing projects to minimize the impervious area footprint, and employing Low Impact Development (LID) design principles to mimic predevelopment water balance through infiltration, evapotranspiration and rainfall harvest and use.
- (4) Maintain existing riparian buffers and enhance riparian buffers when possible.
- (5) Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs (including Source Control BMPs such as good housekeeping practices), LID Strategies, and Treatment Control BMPs.
- (6) Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function, and avoid the breeding of vectors²⁶.
- (7) Prioritize the selection of BMPs to remove storm water pollutants, reduce storm water runoff volume, and beneficially use storm water to support an integrated approach to protecting water quality and managing water resources in the following order of preference:
 - (a) On-site infiltration, bioretention and/or rainfall harvest and use.
 - (b) On-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.

b. Applicability

- i. New Development Projects
 - Development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:
 - (a) All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area

http://sgvmosquito.org/downloads/NPDES/BMP%20for%20Mosquito%20Control%2008-10.pdf

²⁶ Treatment BMPs when designed to drain within 96 hours of the end of rainfall minimize the potential for the breeding of vectors. See DPH Best Management Practices for Mosquito Control in California Manual at

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- (b) Industrial parks 10,000 square feet or more of surface area
- (c) Commercial strip malls 10,000 square feet or more surface area
- (d) Retail gasoline outlets 5,000 square feet or more of surface area
- (e) Restaurants (SIC 5812) 5,000 square feet or more of surface area
- (f) Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces
- (g) Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets²⁷ to the maximum extent practicable
- (h) Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area
- (i) Redevelopment projects in subject categories that meet Redevelopment thresholds identified in Part VI.D.6.b.ii (Redevelopment Projects) below
- (j) Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA), where the development will:
 - (i) Discharge storm water runoff that is likely to impact a sensitive biological species or habitat; and
 - (ii) Create 2,500 square feet or more of impervious surface area
- (k) Single-family hillside homes. To the extent that a Permittee may lawfully impose conditions, mitigation measures or other requirements on the development or construction of a single-family home in a hillside area as defined in the applicable Permittee's Code and Ordinances, each Permittee shall require that during the construction of a singlefamily hillside home, the following measures are implemented:
 - (i) Conserve natural areas
 - (ii) Protect slopes and channels
 - (iii) Provide storm drain system stenciling and signage
 - (iv) Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability
 - (v) Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.
- ii. Redevelopment Projects
 - (1) Redevelopment projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

²⁷ http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm

- (a) Land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on development categories identified in Part VI.D.6.c. (New Development/Redevelopment Performance Criteria).
- (b) Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, the entire project must be mitigated.
- (c) Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, only the alteration must be mitigated, and not the entire development.
 - (i) Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.
 - (ii) Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.
- (d) Existing Development or Redevelopment projects shall mean projects that have been constructed or for which grading or land disturbance permits have been submitted and are deemed complete prior to the adoption date of this Order, except as otherwise specified in this Order.
- (e) Specifically, the Newhall Ranch Project Phases I and II (a.k.a. the Landmark and Mission Village projects) are deemed to be an existing development that will at a minimum, be designed to comply with the Specific LID Performance Standards attached to the Waste Discharge Requirements (Order No. R4-2012-XXXX). All subsequent phases of the Newhall Ranch Project constructed during the term of this Order shall be subject to the requirements of this Order.

c. New Development/ Redevelopment Project Performance Criteria

- i. Integrated Water Quality/Flow Reduction/Resources Management Criteria
 - (1) Each Permittee shall require all New Development and Redevelopment projects (referred to hereinafter as "new projects") identified in Part

VI.D.6.b to control pollutants, pollutant loads, and runoff volume emanating from the project site by: (1) minimizing the impervious surface area and (2) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use.

- (2) Except as provided in Part VI.D.6.c.ii. (Technical Infeasibility or Opportunity for Regional Ground Water Replenishment), Part VI.D.6.d.i (Local Ordinance Equivalence), or Part VI.D.6.c.v (Hydromodification), below, each Permittee shall require the project to retain on-site the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:
 - (a) The 0.75-inch, 24-hour rain event or
 - (b) The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, *whichever is greater*.
- (3) Bioretention and biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.
- (4) When evaluating the potential for on-site retention, each Permittee shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.
- **ii.** Alternative Compliance for Technical Infeasibility or Opportunity for Regional Ground Water Replenishment
 - (1) In instances of technical infeasibility or where a project has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location, each Permittee may allow projects to comply with this Order through the alternative compliance measures as described in Part VI.D.6.c.iii.
 - (2) To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:
 - (a) The infiltration rate of saturated in-situ soils is less than 0.15 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv on-site.
 - (b) Locations where seasonal high ground water is within 5 to 10 feet of the surface,

- (c) Locations within 100 feet of a ground water well used for drinking water,
- (d) Brownfield development sites,
- (e) Other locations where pollutant mobilization is a documented concern,
- (f) Locations with potential geotechnical hazards, or
- (g) Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the on-site volume retention requirement.
- (3) To utilize alternative compliance measures to replenish ground water at an offsite location, the project applicant shall demonstrate why it is not advantageous to replenish ground water at the project site, and that the alternative measures shall also provide equal or greater water quality benefits to the receiving surface water than the Water Quality/Flow Reduction/Resource Management Criteria in Part VI.6.D.c.i.
- iii. Alternative Compliance Measures

When a Permittee determines a project applicant has demonstrated that it is technically infeasible to retain 100 percent of the SWQDv on-site, or is proposing an alternative offsite project to replenish regional ground water supplies, the Permittee shall require one of the following mitigation options:

- (1) Biofiltration
 - (a) If using biofiltration due to demonstrated technical infeasibility, then the new project must biofiltrate 1.5 times the portion of the SWQDv that is not reliably retained on-site, as calculated by Equation 1 below.

Equation 1:

Bv = 1.5 + [SWQDv - Rv]

Where:

Bv = biofiltration volume

SWQDv = the storm water runoff from a 0.75 inch, 24-hour storm or the 85th percentile storm, *whichever is greater*.

Rv = volume reliably retained on-site

(b) Conditions for Biofiltration

- Biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.
- (ii) Biofiltration systems discharging to a receiving water that is included on the Clean Water Act section 303(d) list of impaired water quality-limited water bodies due to nitrogen compounds or related effects shall be designed and maintained to achieve enhanced nitrogen removal capability. See Attachment I for design criteria for underdrain placement to achieve enhanced nitrogen removal.
- (2) Offsite Infiltration/Ground Water Replenishment/Bioretention Projects
 - (a) Use infiltration, ground water replenishment, or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv, less the volume of storm water runoff reliably retained on-site, at an approved offsite project, and
 - (b) Provide pollutant reduction (treatment) of the storm water runoff discharged from the project site in accordance with the Water Quality Mitigation Criteria provided in Part VI.D.6.c.iv.
 - (c) The required offsite mitigation volume shall be calculated by Equation 2 below and equal to:

Equation 2:

Mv = 1.0 * [SWQDv - Rv]

Where:

Mv = mitigation volume

SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, *whichever is greater*

Rv = the volume of storm water runoff reliably retained on-site.

(3) Offsite Project - Retrofit Existing Development

Use infiltration, bioretention, rainfall harvest and use and/or biofiltration BMPs to retrofit an existing development, with similar land uses as the new development or land uses associated with comparable or higher storm water runoff event mean concentrations (EMCs) than the new development. Comparison of EMCs for different land uses shall be based on published data from studies performed in southern California. The retrofit plan shall be designed and constructed to:

(a) Intercept a volume of storm water runoff equal to the mitigation volume (Mv) as described above in Equation 2, except biofiltration BMPs shall

be designed to meet the biofiltration volume as described in Equation 1 and

- (b) Provide pollutant reduction (treatment) of the storm water runoff from the project site as described in the Water Quality Mitigation Criteria provided in Part VI.D.6.c.iv.
- (4) Conditions for Offsite Projects
 - (a) Project applicants seeking to utilize these alternative compliance provisions may propose other offsite projects, which the Permittees may approve if they meet the requirements of this subpart.
 - (b) Location of offsite projects. Offsite projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment project. Each Permittee may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.
 - (c) Project applicant must demonstrate that equal benefits to ground water recharge cannot be met on the project site.
 - (d) Each Permittee shall develop a prioritized list of offsite mitigation, ground water replenishment and/or retrofit projects, and when feasible, the mitigation must be directed to the highest priority project within the same HUC-12 or if approved by the Regional Water Board Executive Officer, the HUC-10 drainage area, as the new development project.
 - (e) Infiltration/bioretention shall be the preferred LID BMP for offsite mitigation or ground water replenishment projects. Offsite retrofit projects may include green streets, parking lot retrofits, green roofs, and rainfall harvest and use. Biofiltration BMPs may be considered for retrofit projects when infiltration, bioretention or rainfall harvest and use is technically infeasible.
 - (f) Each Permittee shall develop a schedule for the completion of offsite projects, including milestone dates to identify, fund, design, and construct the projects. Offsite projects shall be completed as soon as possible, and at the latest, within 4 years of the certificate of occupancy for the first project that contributed funds toward the construction of the offsite project, unless a longer period is otherwise authorized by the Executive Officer of the Regional Water Board. For public offsite projects, each Permittee must provide in their annual reports a summary of total offsite project funds raised to date and a description (including location, general design concept, volume of

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water expected to be retained, and total estimated budget) of all pending public offsite projects. Funding sufficient to address the offsite volume must be transferred to the Permittee (for public offsite mitigation projects) or to an escrow account (for private offsite mitigation projects) within one year of the initiation of construction.

- (g) Offsite projects must be approved by the Permittee and may be subject to approval by the Regional Water Board Executive Officer, if a thirdparty petitions the Executive Officer to review the project.
- (h) The project applicant must perform the offsite projects as approved by either the Permittee or the Regional Water Board Executive Officer or provide sufficient funding for public or private offsite projects to achieve the equivalent mitigation storm water volume.
- iv. Water Quality Mitigation Criteria
 - (1) Each Permittee shall require all New Development and Redevelopment projects that have been approved for offsite mitigation or ground water replenishment projects as defined in Part VI.D.6.c.ii-iii to also provide treatment of storm water runoff from the project site. Each Permittee shall require these projects to design and implement post-construction storm water BMPs and control measures to reduce pollutant loading as necessary to:
 - (a) Meet the pollutant specific benchmarks listed in Table 11 at the treatment systems outlet or prior to the discharge to the MS4, and
 - (b) Ensure that the discharge does not cause or contribute to an exceedance of water quality standards at the Permittee's downstream MS4 outfall.
 - (2) Each Permittee may allow the project proponent to install flow-through modular treatment systems including sand filters, or other proprietary BMP treatment systems including planter boxes, with a demonstrated efficiency at least equivalent to a sand filter. The sizing of the flow through treatment device shall be based on a rainfall intensity of:
 - (a) 0.2 inches per hour, or
 - (b) The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, *whichever is greater*.

Table 11. Benchmarks Applicable to New Development Treatment BMPs²⁸

Pollutant	Suspended Solids mg/L	Total P mg/L	Total N mg/L	Total Nitrate mg/L	TKN mg/L	TOC mg/L
Effluent Concentration	10	0.10	1.09	0.23	1.01	13

Conventional Pollutants

Metals

Pollutant	Total Cd	Total Cu	Total Cr	Total Pb	Total Zn
	μg/L	μg/L	μg/L	μg/L	μg/L
Effluent Concentration	0.3	7	2.6	2.0	18

- (3) In addition to the requirements for controlling pollutant discharges as described in Part VI.D.6.iv. and the treatment requirements described above, each Permittee shall ensure that the new development or redevelopment will not cause or contribute to an exceedance of applicable water quality-based effluent limitations established in Part VI.E pursuant to Total Maximum Daily Loads (TMDLs).
- v. Hydromodification (Flow/ Volume/ Duration) Control Criteria
 - (1) Each Permittee shall require all New Development and Redevelopment projects located within natural drainage systems as described in Part VI.D.6.v.(1)(a)(iii) to implement hydrologic control measures, to prevent accelerated downstream erosion and to protect stream habitat in natural drainage systems. The purpose of the hydrologic controls is to minimize changes in post-development hydrologic storm water runoff discharge rates, velocities, and duration. This shall be achieved by maintaining the project's pre-project storm water runoff flow rates and durations.
 - (a) Description
 - (i) Hydromodification control in natural drainage systems shall be achieved by maintaining the Erosion Potential (Ep) in streams at a value of 1, unless an alternative value can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and prevent damage to stream habitat in natural drainage system tributaries (see Attachment J -Determination of Erosion Potential).

²⁸ The treatment control BMP performance standards were developed from the median effluent water quality values of the three highest performing BMPs, per pollutant, in the storm water BMP database (http://www.bmpdatabase.org/, last visited May 15, 2012).

- (ii) Hydromodification control may include one, or a combination of onsite, regional or sub-regional hydromodification control BMPs, LID strategies, or stream and riparian buffer restoration measures. Any in-stream restoration measure shall not adversely affect the beneficial uses of the natural drainage systems.
- (iii) Natural drainage systems that are subject to the hydromodification assessments and controls as described in this Part of the Order, include all drainages that have not been improved (e.g., channelized or armored with concrete, shotcrete, or rip-rap) or drainage systems that are tributary to a natural drainage system, except as provided in Part VI.D.6.v.(1)(b)--Exemptions to Hydromodification Controls [see below]. The clearing or dredging of a natural drainage system does not constitute an "improvement."
- (iv) Until the State Water Board or the Regional Water Board adopts a final Hydromodification Policy or criteria, Permittees shall implement the Interim Hydromodification Control Criteria described in Part VI.D.6.v.(1)(c) to control the potential adverse impacts of changes in hydrology that may result from new development and redevelopment projects located within natural drainage systems as described in Part VI.D.6.v.(1)(a)(iii).
- (b) Exemptions to Hydromodification Controls. Permittees may exempt the following New Development and Redevelopment projects from implementation of hydromodification controls where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to present and future beneficial uses of Natural Drainage Systems are unlikely:
 - (i) Projects that are replacement, maintenance or repair of a Permittee's existing flood control facility, storm drain, or transportation network.
 - (ii) Redevelopment Projects in the Urban Core that do not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.
 - (iii) Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has a 100-year peak flow (Q100) of 25,000 cfs or more, or other receiving water that is not susceptible to hydromodification impacts.
 - (iv) Projects that discharge directly or via a storm drain into concrete or otherwise engineered (not natural) channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into

receiving water that is not susceptible to hydromodification impacts (as in Parts VI.D.6.v.(1)(b)(i)-(iii) above).

- (c) Interim Hydromodification Control Criteria. The Interim Hydromodification Control Criteria to protect natural drainage systems until the State or Regional Water Board adopts a final Hydromodification Policy or criteria are as follows:
 - (i) Except as provided for in Part VI.D.6.v.(1)(b), projects disturbing an area greater than 1 acre but less than 50 acres within natural drainage systems will be presumed to meet pre-development hydrology if one of the following demonstrations is made:
 - 1. The project is designed to retain on-site, through infiltration, evapotranspiration, and/or harvest and use, the storm water volume from the runoff of the 95th percentile storm, or
 - 2. The runoff flow rate, volume, velocity, and duration for the postdevelopment condition do not exceed the pre-development condition for the 2-year, 24-hour rainfall event. This condition may be substantiated by simple screening models, including those described in *Hydromodification Effects on Flow Peaks and Durations in Southern California Urbanizing Watersheds* (Hawley et al., 2011) or other models acceptable to the Executive Officer of the Regional Water Board, or
 - 3. The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by a Hydromodification Analysis Study and the equation presented in Attachment J.
 - (ii) Projects disturbing 50 acres or more within natural drainage systems will be presumed to meet pre-development hydrology based on the successful demonstration of one of the following conditions:
 - 1. The site infiltrates on-site at least the runoff from a 2-year, 24-hour storm event, or
 - 2. The runoff flow rate, volume, velocity, and duration for the postdevelopment condition does not exceed the pre-development condition for the 2-year, 24-hour rainfall events. These conditions must be substantiated by hydrologic modeling acceptable to the Regional Water Board Executive Officer, or
 - 3. The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by a Hydromodification Analysis Study and the equation presented in Attachment J.
- (d) Final Criteria
 - (i) Each Permittee shall develop and implement watershed specific Hydromodification Control Plans (HCPs) no later than 180 days

after the State Water Board issues final a Hydromodification Policy or criteria.

- (ii) The HCP shall identify:
 - 1. Stream classifications
 - 2. Flow rate and duration control methods
 - 3. Sub-watershed mitigation strategies
 - 4. Stream and/or riparian buffer restoration measures, which will maintain the stream and tributary Erosion Potential at 1 unless an alternative value can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and prevent damage to stream habitat in natural drainage system tributaries.
- (iii) The HCP shall contain the following elements:
 - 1. Hydromodification Management Standards
 - 2. Natural Drainage Areas and Hydromodification Management Control Areas
 - 3. New Development and Redevelopment Projects subject to the HCP
 - Description of authorized Hydromodification Management Control BMPs
 - 5. Hydromodification Management Control BMP Design Criteria
 - 6. For flow duration control methods, the range of flows to control for, and goodness of fit criteria
 - 7. Allowable low critical flow, Qc, which initiates sediment transport
 - 8. Description of the approved Hydromodification Model
 - 9. Any alternate Hydromodification Management Model and Design
 - 10. Stream Restoration Measures Design Criteria
 - 11. Monitoring and Effectiveness Assessment
 - 12. Record Keeping
 - 13. The HCP shall be deemed in effect upon Executive Officer approval.
- vi. Watershed Equivalence.

Regardless of the methods through which Permittees allow project applicants to implement alternative compliance measures, the subwatershed-wide

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(defined as draining to the same HUC-12 hydrologic area in the Basin Plan) result of all development must be at least the same level of water quality protection as would have been achieved if all projects utilizing these alternative compliance provisions had complied with Part VI.D.6.c.i (Integrated Water Quality/Flow Reduction/Resource Management Criteria).

vii. Annual Report

Each Permittee shall provide in their annual report to the Regional Water Board a list of mitigation project descriptions and pollutant and flow reduction analyses (compiled from design specifications submitted by project applicants and approved by the Permittee(s)) comparing the expected aggregate results of alternative compliance projects to the results that would otherwise have been achieved by retaining on site the SWQDv.

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d. Implementation

i. Local Ordinance Equivalence

A Permittee that has adopted a local LID ordinance may submit documentation to the Regional Water Board that the alternative requirements in the local ordinance will provide equal or greater reduction in storm water discharge pollutant loading and volume as would have been obtained through strict conformance with Part VI.D.6.c.i. (Integrated Water Quality/Flow Reduction Resources Management Criteria) or Part VI.D.6.c.ii. (Alternative Compliance Measures for Technical Infeasibility or Opportunity for Regional Ground water Replenishment) of this Order and, if applicable, Part VI.D.6.c.v. (Hydromodification (Flow/Volume Duration) Control Criteria.

- (1) Documentation shall be submitted within 180 days after the effective date of this Order.
- (2) The Regional Water Board Executive Officer will determine whether implementation of the local ordinance provides equivalent pollutant control to the applicable provisions of this Order. Local ordinances that do not strictly conform to the provisions of this Order must be approved by the Regional Water Board Executive Officer as being "equivalent" in effect to the applicable provisions of this Order in order to substitute for the requirements in Parts VI.D.6.c.i and, where applicable, VI.D.6.c.v.
- (3) Where the Regional Water Board Executive Officer determines that a Permittee's local LID ordinance does not provide equivalent pollutant control, the Permittee shall either
 - (a) Require conformance with Parts VI.D.6.c.i and, where applicable, VI.D.6.c.v, or
 - (b) Update its local ordinance to conform to the requirements herein within two years of the effective date of this Order.
- ii. Project Coordination
 - (1) Each Permittee shall facilitate a process for effective approval of postconstruction storm water control measures. The process shall include:
 - (a) Detailed LID site design and BMP review including BMP sizing calculations, BMP pollutant removal performance, and municipal approval; and
 - (b) An established structure for communication and delineated authority between and among municipal departments that have jurisdiction over project review, plan approval, and project construction through memoranda of understanding or an equivalent agreement.

- iii. Maintenance Agreement and Transfer
 - (1) Prior to issuing approval for final occupancy, each Permittee shall require that all new development and redevelopment projects subject to postconstruction BMP requirements provide an operation and maintenance plan, monitoring plan, where required, and verification of ongoing maintenance provisions for LID practices, Treatment Control BMPs, and Hydromodification Control BMPs including but not limited to: final map conditions, legal agreements, covenants, conditions or restrictions, CEQA mitigation requirements, conditional use permits, and/ or other legally binding maintenance agreements.
 - (a) Verification at a minimum shall include the developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either:
 - (i) A signed statement from the public entity assuming responsibility for BMP maintenance; or
 - Written conditions in the sales or lease agreement, which require the property owner or tenant to assume responsibility for BMP maintenance and conduct a maintenance inspection at least once a year; or
 - (iii) Written text in project covenants, conditions, and restrictions (CCRs) for residential properties assigning BMP maintenance responsibilities to the Home Owners Association; or
 - (iv) Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of BMPs.
 - (b) Each Permittee shall require all development projects subject to postconstruction BMP requirements to provide a plan for the operation and maintenance of all structural and treatment controls. The plan shall be submitted for examination of relevance to keeping the BMPs in proper working order. Where BMPs are transferred to Permittee for ownership and maintenance, the plan shall also include all relevant costs for upkeep of BMPs in the transfer. Operation and Maintenance plans for private BMPs shall be kept on-site for periodic review by Permittee inspectors.
- iv. Tracking, Inspection, and Enforcement of Post-Construction BMPs
 - (1) Each Permittee shall implement a tracking system and an inspection and enforcement program for new development and redevelopment postconstruction storm water no later than 60 days after Order adoption date.
 - (a) Implement a GIS or other electronic system for tracking projects that have been conditioned for post-construction BMPs. The electronic system, at a minimum, should contain the following information:

- (i) Municipal Project ID
- (ii) State WDID No.
- (iii) Project Acreage
- (iv) BMP Type and Description
- (v) BMP Location (coordinates)
- (vi) Date of Acceptance
- (vii) Date of Maintenance Agreement
- (viii) Maintenance Records
- (ix) Inspection Date and Summary
- (x) Corrective Action
- (xi) Date Certificate of Occupancy Issued
- (xii) Replacement or Repair Date
- (b) Inspect all development sites upon completion of construction and prior to the issuance of occupancy certificates to ensure proper installation of LID measures, structural BMPs, treatment control BMPs and hydromodification control BMPs. The inspection may be combined with other inspections provided it is conducted by trained personnel.
- (c) Verify proper maintenance and operation of post-construction BMPs previously approved for new development and redevelopment and operated by the Permittee. The post-construction BMP maintenance inspection program shall incorporate the following elements:
 - (i) Post-construction BMP Maintenance Inspection checklist
 - (ii) Inspection at least once every 2 years after project completion, of post-construction BMPs to assess operation conditions with particular attention to criteria and procedures for post-construction treatment control and hydromodification control BMP repair, replacement, or re-vegetation.
- (d) For post-construction BMPs operated and maintained by parties other than the Permittee, the Permittee shall require annual reports by the other parties demonstrating proper maintenance and operations.
- (e) Undertake enforcement action per the established Progressive Enforcement Policy as appropriate based on the results of the

inspection. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

7. Development Construction Program

- **a.** Each Permittee shall develop, implement, and enforce a construction program that:
 - i. Prevents illicit construction-related discharges of pollutants into the MS4 and receiving waters.
 - **ii.** Implements and maintains structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites.
 - iii. Reduces construction site discharges of pollutants to the MS4 to the MEP.
 - **iv.** Prevents construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.
- **b.** Each Permittee shall establish for its jurisdiction an enforceable erosion and sediment control ordinance for all construction sites that disturb soil.

c. Applicability

The provisions contained in Part VI.D.7.d below apply exclusively to construction sites less than 1 acre. Provisions contained in Part VI.D.7.e – j, apply exclusively to construction sites 1 acre or greater.

d. Requirements for Construction Sites Less than One Acre

- i. For construction sites less than 1 acre, each Permittee shall:
 - (1) Through the use of the Permittee's erosion and sediment control ordinance or and/or building permit, require the implementation of an effective combination of erosion and sediment control BMPs from Table 12 to prevent erosion and sediment loss, and the discharge of construction wastes.

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
	Silt Fence
Sediment Controls	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm Water	Water Conservation Practices
Management	Dewatering Operations
	Material Delivery and Storage
Waste Management	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management

Table 12. Minimum Set of BMPs for All Construction Sites

Concrete Waste Management
Sanitary/Septic Waste Management

- (2) Possess the ability to identify all construction sites with soil disturbing activities that require a permit, regardless of size, and shall be able to provide a list of permitted sites upon request of the Regional Water Board. Permittees may use existing permit databases or other tracking systems to comply with these requirements.
- (3) Inspect construction sites on as needed based on the evaluation of the factors that are a threat to water quality. In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.
- (4) Implement the Permittee's Progressive Enforcement Policy to ensure that construction sites are brought into compliance with the erosion and sediment control ordinance within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.
- e. Each Permittee shall require operators of public and private construction sites within its jurisdiction to select, install, implement, and maintain BMPs that comply with its erosion and sediment control ordinance.
- **f.** The requirements contained in this part apply to all activities involving soil disturbance with the exception of agricultural activities. Activities covered by this permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving and linear underground/overhead projects (LUPs).

g. Construction Site Inventory / Electronic Tracking System

- i. Each Permittee shall use an electronic system to inventory grading permits, encroachment permits, demolition permits, building permits, or construction permits (and any other municipal authorization to move soil and/ or construct or destruct that involves land disturbance) issued by the Permittee. To satisfy this requirement, the use of a database or GIS system is recommended.
- **ii.** Each Permittee shall complete an inventory and continuously update as new sites are permitted and sites are completed. The inventory / tracking system shall contain, at a minimum:
 - (1) Relevant contact information for each project (e.g., name, address, phone, email, etc. for the owner and contractor.
 - (2) The basic site information including location, status, size of the project and area of disturbance.

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- (3) The proximity all water bodies, water bodies listed as impaired by sediment-related pollutants, and water bodies for which a sediment-related TMDL has been adopted and approved by USEPA.
- (4) Significant threat to water quality status, based on consideration of factors listed in Appendix 1 to the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit).
- (5) Current construction phase.
- (6) The required inspection frequency.
- (7) The project start date and anticipated completion date.
- (8) Whether the project has submitted a Notice of Intent and obtained coverage under the Construction General Permit.
- (9) The date the Permittee approved the Erosion and Sediment Control Plan (ESCP).
- (10) Post-Construction Structural BMPs subject to Operation and Maintenance Requirements.

h. Construction Plan Review and Approval Procedures

- i. Each Permittee shall develop procedures to review and approve relevant construction plan documents.
- **ii.** The review procedures shall be developed and implemented such that the following minimum requirements are met:
 - (1) Prior to issuing a grading or building permit, each Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an ESCP prior to the disturbance of land for the Permittee's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval by the Permittee. Each Permittee shall not approve any ESCP unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of a Permittee's erosion and sediment control ordinance.
 - (2) ESCPs must include the elements of a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as ESCPs.
 - (3) At a minimum, the ESCP must address the following elements:
 - (a) Methods to minimize the footprint of the disturbed area and to prevent soil compaction outside of the disturbed area.
 - (b) Methods used to protect native vegetation and trees.
 - (c) Sediment/Erosion Control.
 - (d) Controls to prevent tracking on and off the site.

- (e) Non-storm water controls (e.g., vehicle washing, dewatering, etc.).
- (f) Materials Management (delivery and storage).
- (g) Spill Prevention and Control.
- (h) Waste Management (e.g., concrete washout/waste management; sanitary waste management).
- (i) Identification of site Risk Level as identified per the requirements in Appendix 1 of the Construction General Permit.
- (4) The ESCP must include the rationale for the selection and design of the proposed BMPs, including quantifying the expected soil loss from different BMPs.
- (5) Each Permittee shall require that the ESCP is developed and certified by a Qualified SWPPP Developer (QSD).
- (6) Each Permittee shall require that all structural BMPs be designed by a licensed California Engineer.
- (7) Each Permittee shall require that for all sites, the landowner or the landowner's agent sign a statement on the ESCP as follows:
 - (a) "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/ or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/ or adequately implement the ESCP may result in revocation of grading and/ or other permits or other sanctions provided by law."
- (8) Prior to issuing a grading or building permit, each Permittee must verify that the construction site operators have existing coverage under applicable permits, including, but not limited to the State Water Board's Construction General Permit, State Water Board 401 Water Quality Certification, U.S. Army Corp 404 permit, and California Department of Fish and Game 1600 Agreement.
- (9) Each Permittee shall develop and implement a checklist to be used to conduct and document review of each ESCP.

i. BMP Implementation Level

- i. Each Permittee shall implement technical standards for the selection, installation and maintenance of construction BMPs for all construction sites within its jurisdiction.
- ii. The BMP technical standards shall require:

- (1) The use of BMPs that are tailored to the risks posed by the project. Sites are to be ranked from Low Risk (Risk 1) to High Risk (Risk 3). Project risks are to be calculated based on the potential for erosion from the site and the sensitivity of the receiving water body. Receiving water bodies that are listed on the Clean Water Act (CWA) Section 303(d) list for sediment or siltation are considered High Risk. Likewise, water bodies with designated beneficial uses of SPWN, COLD, and MIGR are also considered to be High Risk. The combined (sediment/receiving water) site risk shall be calculated using the methods provided in Appendix 1 of the Construction General Permit. At a minimum, the BMP technical standards shall include requirements for High Risk sites as defined in Table 15.
- (2) The use of BMPs for all construction sites, sites equal or greater to 1 acre, and for paving projects per Tables 14 and 16 of this Order.
- (3) Detailed installation designs and cut sheets for use within ESCPs.
- (4) Maintenance expectations for each BMP, or category of BMPs, as appropriate.
- iii. Permittees are encouraged to adopt respective BMPs from latest versions of the California BMP Handbook, Construction or Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual and addenda. Alternatively, Permittees are authorized to develop or adopt equivalent BMP standards consistent for Southern California and for the range of activities presented below in Tables 13 through 16.
- iv. The local BMP technical standards shall be readily available to the development community and shall be clearly referenced within each Permittee's storm water or development services website, ordinance, permit approval process and/or ESCP review forms. The local BMP technical standards shall also be readily available to the Regional Water Board upon request.
- v. Local BMP technical standards shall be available for the following:

Erosion Controls	Scheduling	
Elosion controis	Preservation of Existing Vegetation	
	Silt Fence	
Sediment Controls	Sand Bag Barrier	
	Stabilized Construction Site Entrance/Exit	
Non-Storm water	Water Conservation Practices	
Management	Dewatering Operations	
	Material Delivery and Storage	
	Stockpile Management	
Waste Management	Spill Prevention and Control	
	Solid Waste Management	
	Concrete Waste Management	

Table 13. Minimum Set of BMPs for All Construction Sites

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Sanitary/Septic Waste Management

Table 14. Additional BMPs Applicable to Construction Sites Disturbing1 Acre or More

	Hydraulic Mulch
Erosion Controls	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
	Fiber Rolls
	Gravel Bag Berm
Sediment Controls	Street Sweeping and/ or Vacuum
Sediment Controls	Storm Drain Inlet Protection
	Scheduling
	Check Dam
	Wind Erosion Controls
Additional Controls	Stabilized Construction Entrance/ Exit
Additional Controls	Stabilized Construction Roadway
	Entrance/ Exit Tire Wash
Non-Storm wate	Vehicle and Equipment Washing
Management water	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
Waste Management	Spill Prevention and Control

Table 15. Additional Enhanced BMPs for High Risk Sites

	Hydraulic Mulch	
	Hydroseeding	
	Soil Binders	
Erosion Controls	Straw Mulch	
	Geotextiles and Mats	
	Wood Mulching	
	Slope Drains	
	Silt Fence	
	Fiber Rolls	
	Sediment Basin	
Sediment Controls	Check Dam	
Sediment Controls	Gravel Bag Berm	
	Street Sweeping and/or Vacuum	
	Sand Bag Barrier	
	Storm Drain Inlet Protection	
Additional Controls	Wind Erosion Controls	
	Stabilized Construction Entrance/Exit	

	Stabilized Construction Roadway
	Entrance/Exit Tire Wash
	Advanced Treatment Systems*
	Water Conservation Practices
	Dewatering Operations (Ground water
	dewatering only under NPDES Permit
Non-Storm water Management	No. CAG994004)
_	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
	Material Delivery and Storage
Waste Management	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management

* Applies to public roadway projects.

Table 16. Minimum Required BMPs for Roadway Paving or Repair Operation (For Private or Public Projects)

1.	Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions.
2.	Install gravel bags and filter fabric or other equivalent inlet protection
	at all susceptible storm drain inlets and at manholes to prevent spills of
	paving products and tack coat.
3.	Prevent the discharge of release agents including soybean oil, other
_	oils, or diesel to the storm water drainage system or receiving waters.
4.	Minimize non storm water runoff from water use for the roller and for
	evaporative cooling of the asphalt.
5.	Clean equipment over absorbent pads, drip pans, plastic sheeting or
_	other material to capture all spillage and dispose of properly.
6.	Collect liquid waste in a container, with a secure lid, for transport to a
	maintenance facility to be reused, recycled or disposed of properly.
7.	Collect solid waste by vacuuming or sweeping and securing in an
	appropriate container for transport to a maintenance facility to be
	reused, recycled or disposed of properly.
8.	Cover the "cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt
	binder) with protective sheeting during a rainstorm.
9.	Cover loads with tarp before haul-off to a storage site, and do not
	overload trucks.
10.	Minimize airborne dust by using water spray or other approved dust
	suppressant during grinding.
11.	Avoid stockpiling soil, sand, sediment, asphalt material and asphalt
	grindings materials or rubble in or near storm water drainage system
	or receiving waters.
12.	Protect stockpiles with a cover or sediment barriers during a rain.

j. Construction Site Inspection

- i. Each Permittee shall use its legal authority to implement procedures for inspecting public and private construction sites.
- ii. The inspection procedures shall be implemented as follows:
 - (1) Inspect the public and private construction sites as specified in Table 17 below:

Table 17. Inspection Frequencies

Site	Inspection Frequency Shall Occur		
a. All sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under the CWA § 303(d)	 (1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA²⁹ (2) within 48 hours of a ¹/₂-inch raine event and at (3) least once every two 		
b. Other sites 1 acre or more determined to be a significant threat to water quality ³⁰	weeks		
c. All other construction sites with 1 acre or more of soil disturbance not meeting the criteria above	At least monthly		

- (2) Each Permittee shall inspect all phases of construction as follows:
 - (a) Prior to Land Disturbance

Prior to allowing an operator to commence land disturbance, each Permittee shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan.

(b) During Active Construction, including Land Development³¹ and Vertical Construction³²

In accordance with the frequencies specified in Part VI.D.7.j and Table 17 of this Order, each Permittee shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan throughout the construction process.

²⁹ www.srh.noaa.gov/forecast

³⁰ In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.

³¹ Activities include cuts and fills, rough and finished grading; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; stockpiling of select material for capping operations; and excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvement.

³² The build out of structures from foundations to roofing, including rough landscaping.

(c) Final Landscaping / Site Stabilization³³

At the conclusion of the project and as a condition of approving and/or issuing a Certificate of Occupancy, each Permittee shall inspect the constructed site to ensure that all graded areas have reached final stabilization and that all trash, debris, and construction materials, and temporary erosion and sediment BMPs are removed.

- (3) Based on the required frequencies above, each construction project shall be inspected a minimum of three times.
- (4) Inspection Standard Operating Procedures

Each Permittee shall develop, implement, and revise as necessary, standard operating procedures that identify the inspection procedures each Permittee will follow. Inspections of construction sites, and the standard operating procedures, shall include, but are not limited to:

- (a) Verification of active coverage under the Construction General Permit for sites disturbing 1 acre or more, or that are part of a planned development that will disturb 1 acre or more and a process for referring non-filers to the Regional Water Board.
- (b) Review of the applicable ESCP and inspection of the construction site to determine whether all BMPs have been selected, installed, implemented, and maintained according to the approved plan and subsequent approved revisions.
- (c) Assessment of the appropriateness of the planned and installed BMPs and their effectiveness.
- (d) Visual observation and record keeping of non-storm water discharges, potential illicit discharges and connections, and potential discharge of pollutants in storm water runoff.
- (e) Development of a written or electronic inspection report generated from an inspection checklist used in the field.
- (f) Tracking of the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required in Table 17 of this Order.

k. Enforcement

Each Permittee shall implement its Progressive Enforcement Policy to ensure that construction sites are brought into compliance with all storm water requirements within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

I. Permittee Staff Training

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³³ All soil disturbing activities at each individual parcel within the site have been completed.

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- i. Each Permittee shall ensure that all staff whose primary job duties are related to implementing the construction storm water program are adequately trained.
- **ii.** Each Permittee may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:
 - (1) Plan Reviewers and Permitting Staff

Ensure staff and consultants are trained as qualified individuals, knowledgeable in the technical review of local erosion and sediment control ordinance, local BMP technical standards, ESCP requirements, and the key objectives of the State Water Board QSD program. Permittees may provide internal training to staff or require staff to obtain QSD certification.

(2) Erosion Sediment Control/Storm Water Inspectors

Each Permittee shall ensure that its inspectors are knowledgeable in inspection procedures consistent with the State Water Board sponsored program QSD or a Qualified SWPPP Practitioner (QSP) or that a designated person on staff who has been trained in the key objectives of the QSD/QSP programs supervises inspection operations. Each Permittee may provide internal training to staff or require staff to obtain QSD/QSP certification. Each inspector must be knowledgeable of the local BMP technical standards and ESCP requirements.

(3) Third-Party Plan Reviewers, Permitting Staff, and Inspectors

If the Permittee utilizes outside parties to conduct inspections and/or review plans, each Permittee shall ensure these staff are trained per the requirements listed above.

8. Public Agency Activities Program

- **a.** Each Permittee shall implement a Public Agency Activities Program to minimize storm water pollution impacts from Permittee-owned or operated facilities and activities and to identify opportunities to reduce storm water pollution impacts from areas of existing development. Requirements for Public Agency Facilities and Activities consist of the following components:
 - i. Public Construction Activities Management
 - ii. Public Facility Inventory
 - iii. Inventory of Existing Development for Retrofitting Opportunities
 - iv. Public Facility and Activity Management
 - v. Vehicle and Equipment Wash Areas
 - vi. Landscape, Park, and Recreational Facilities Management
 - vii. Storm Drain Operation and Maintenance
 - viii. Streets, Roads, and Parking Facilities Maintenance

- **ix.** Emergency Procedures
- **x.** Municipal Employee and Contractor Training

b. Public Construction Activities Management

- i. Each Permittee shall implement and comply with the Planning and Land Development Program requirements in Part VI.D.6 of this Order at Permitteeowned or operated (i.e., public or Permittee sponsored) construction projects that are categorized under the project types identified in Part VI.D.6.b of this Order.
- **ii.** Each Permittee shall implement and comply with the appropriate Development Construction Program requirements in Part VI.D.7 of this Order at Permittee-owned or operated construction projects as applicable.
- iii. For Permittee-owned or operated projects (including those under a capital improvement project plan) that disturb less than one acre of soil, each Permittee shall require an effective combination of erosion and sediment control BMPs from Table 13 (see Construction Development Program, minimum BMPs).
- **iv.** Each Permittee shall obtain separate coverage under the Construction General Permit for all Permittee-owned or operated construction sites that require coverage.

c. Public Facility Inventory

- i. Each Permittee shall maintain an updated inventory of all Permittee-owned or operated (i.e., public) facilities within its jurisdiction that are potential sources of storm water pollution. The incorporation of facility information into a GIS is recommended. Sources to be tracked include but are not limited to the following:
 - (1) Animal control facilities
 - (2) Chemical storage facilities
 - (3) Composting facilities
 - (4) Equipment storage and maintenance facilities (including landscape maintenance-related operations)
 - (5) Fueling or fuel storage facilities (including municipal airports)
 - (6) Hazardous waste disposal facilities
 - (7) Hazardous waste handling and transfer facilities
 - (8) Incinerators
 - (9) Landfills
 - (10) Materials storage yards
 - (11) Pesticide storage facilities

- (12) Fire stations
- (13) Public restrooms
- (14) Public parking lots
- (15) Public golf courses
- (16) Public swimming pools
- (17) Public parks
- (18) Public works yards
- (19) Public marinas
- (20) Recycling facilities
- (21) Solid waste handling and transfer facilities
- (22) Vehicle storage and maintenance yards
- (23) Storm water management facilities (e.g., detention basins)
- (24) All other Permittee-owned or operated facilities or activities that each Permittee determines may contribute a substantial pollutant load to the MS4.
- **ii.** Each Permittee shall include the following minimum fields of information for each Permittee-owned or operated facility in its inventory.
 - (1) Name of facility
 - (2) Name of facility manager and contact information
 - (3) Address of facility (physical and mailing)
 - (4) A narrative description of activities performed and potential pollution sources.
 - (5) Coverage under the Industrial General Permit or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.
- **iii.** Each Permittee shall update its inventory at least twice during the term of the Order. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (e.g., property management, land-use approvals, accounting and depreciation ledger account, and similar information).

d. Inventory of Existing Development for Retrofitting Opportunities

i. Each Permittee shall develop an inventory of retrofitting opportunities that meets the requirements of this Part VI.8.D. Retrofit opportunities shall be identified within the public right-of-way or in coordination with a TMDL implementation plan(s). The goals of the existing development retrofitting inventory are to address the impacts of existing development through regional

or sub-regional retrofit projects that reduce the discharges of storm water pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards as defined in Part V.A, Receiving Water Limitations.

- **ii.** Each Permittee shall screen existing areas of development to identify candidate areas for retrofitting using watershed models or other screening level tools.
- **iii.** Each Permittee shall evaluate and rank the areas of existing development identified in the screening to prioritize retrofitting candidates. Criteria for evaluation may include but are not limited to:
 - (1) Feasibility, including general private and public land availability;
 - (2) Cost effectiveness;
 - (3) Pollutant removal effectiveness;
 - (4) Tributary area potentially treated;
 - (5) Maintenance requirements;
 - (6) Landowner cooperation;
 - (7) Neighborhood acceptance;
 - (8) Aesthetic qualities;
 - (9) Efficacy at addressing concern; and
 - (10) Potential improvements to public health and safety.
- iv. Each Permittee shall consider the results of the evaluation in the following programs:
 - (1) The Permittee's storm water management program: Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs in a Permittee's SQMP.
 - (2) Off-site mitigation for New Development and Redevelopment: Each Permittee shall consider high priority retrofit projects as candidates for off-site mitigation projects per Part VI.D.6.c.iii.(4).(d).
 - (3) Where feasible, at the discretion of the Permittee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs per Part VI.D.8.e.ii.(2) below.
- v. Each Permittee shall cooperate with private landowners to encourage site specific retrofitting projects. Each Permittee shall consider the following practices in cooperating with private landowners to retrofit existing development:
 - (1) Demonstration retrofit projects;

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- (2) Retrofits on public land and easements that treat runoff from private developments;
- (3) Education and outreach;
- (4) Subsidies for retrofit projects;
- (5) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;
- (6) Public and private partnerships;
- (7) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

e. Public Agency Facility and Activity Management

- i. Each Permittee shall obtain separate coverage under the Industrial General Permit for all Permittee-owned or operated facilities where industrial activities are conducted that require coverage under the Industrial General Permit.
- **ii.** Each Permittee shall implement the following measures for Permittee- owned and operated flood management projects:
 - (1) Develop procedures to assess the impacts of flood management projects on the water quality of receiving water bodies; and
 - (2) Evaluate existing structural flood control facilities to determine if retrofitting the facility to provide additional pollutant removal from storm water is feasible.
- iii. Each Permittee shall ensure the implementation and maintenance of activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) when such activities occur at Permittee-owned or operated facilities and field activities (e.g., project sites) including but not limited to the facility types listed in Part VI.D.8.c above, and at any area that includes the activities described in Table 18, or that have the potential to discharge pollutants in storm water.
- **iv.** Any contractors hired by the Permittee to conduct Public Agency Activities including, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair shall be contractually required to implement and maintain the activity specific BMPs listed in Table 18. Each Permittee shall conduct oversight of contractor activities to ensure these BMPs are implemented and maintained.
- v. Permittee-owned or operated facilities that have obtained coverage under the Industrial General Permit shall implement and maintain BMPs consistent with the associated SWPPP and are therefore not required to implement and maintain the activity specific BMPs listed in Table 18.
- vi. Effective source control BMPs for the activities listed in Table 18 shall be implemented at Permittee-owned or operated facilities, unless the pollutant

generating activity does not occur. Each Permittee shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA, see Attachment A for definition), a water body subject to TMDL provisions in Part 7, or a CWA § 303(d) listed water body (see Part VI.E below). Likewise, for those BMPs that are not adequately protective of water quality standards, a Permittee may require additional site-specific controls.

Table 18, BN	IPs for Public	Agency Facilities	and Activities
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General and Activity Specific BMPs			
	Scheduling and Planning		
	Spill Prevention and Control		
	Sanitary/Septic Waste Management		
	Material Use		
	Safer Alternative Products		
General BMPs	Vehicle/Equipment Cleaning, Fueling and		
	Maintenance		
	Illicit Connection Detection, Reporting and Removal		
	Illegal Spill Discharge Control		
	Maintenance Facility Housekeeping Practices		
	Asphalt Cement Crack and Joint Grinding/ Sealing		
	Asphalt Paving		
	Structural Pavement Failure (Digouts) Pavement		
Flexible Pavement	Grinding and Paving		
	Emergency Pothole Repairs		
	Sealing Operations		
	Portland Cement Crack and Joint Sealing		
Rigid Pavement	Mudjacking and Drilling		
nigiu Faveillent	Concrete Slab and Spall Repair		
_	Shoulder Grading		
	Nonlandscaped Chemical Vegetation Control		
	Nonlandscaped Mechanical Vegetation Control/		
	Mowing		
Slope/ Drains/	Nonlandscaped Tree and Shrub Pruning, Brush		
Vegetation	Chipping, Tree and Shrub Removal		
Vegetation	Fence Repair		
	Drainage Ditch and Channel Maintenance		
	Drain and Culvert Maintenance		
	Curb and Sidewalk Repair Sweeping Operations		
	Litter and Debris Removal		
Litter/ Debris/ Graffiti	Emergency Response and Cleanup Practices		
	Graffiti Removal		
Landscaping	Chemical Vegetation Control		
_	Manual Vegetation Control		

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General and Activity Sp	ecific BMPs		
	Landscaped Mechanical Vegetation Control/ Mowing		
	Landscaped Tree and Shrub Pruning, Brush Chipping,		
	Tree and Shrub Removal		
	Irrigation Line Repairs		
	Irrigation (Watering), Potable and Nonpotable		
	Storm Drain Stenciling		
	Roadside Slope Inspection		
Environmental	Roadside Stabilization		
	Stormwater Treatment Devices		
	Traction Sand Trap Devices		
	Welding and Grinding		
	Sandblasting, Wet Blast with Sand Injection and		
Bridges	Hydroblasting		
	Painting		
	Bridge Repairs		
	Pump Station Cleaning		
Other Structures	Tube and Tunnel Maintenance and Repair		
Other Structures	Tow Truck Operations		
	Toll Booth Lane Scrubbing Operations		
Electrical	Sawcutting for Loop Installation		
	Thermoplastic Striping and Marking		
	Paint Striping and Marking		
	Raised/ Recessed Pavement Marker Application and		
Traffic Guidance	Removal		
	Sign Repair and Maintenance		
	Median Barrier and Guard Rail Repair		
	Emergency Vehicle Energy Attenuation Repair		
Storm Maintenance	Minor Slides and Slipouts Cleanup/ Repair		
	Building and Grounds Maintenance		
	Storage of Hazardous Materials (Working Stock)		
	Material Storage Control (Hazardous Waste)		
Management and	Outdoor Storage of Raw Materials		
Support	Vehicle and Equipment Fueling		
Cabboll	Vehicle and Equipment Cleaning		
	Vehicle and Equipment Maintenance and Repair		
	Aboveground and Underground Tank Leak and Spill		
	Control		

f. Vehicle and Equipment Washing

i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) for all fixed vehicle and equipment washing; including fire fighting and emergency response vehicles.

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- **ii.** Each Permittee shall prevent discharges of wash waters from vehicle and equipment washing by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:
 - (1) Self-contain, and haul off for disposal; or
 - (2) Equip with a clarifier or an alternative pre-treatment device and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.
- **iii.** Each Permittee shall ensure that any municipal facilities constructed, redeveloped, or replaced shall not discharge wastewater from vehicle and equipment wash areas to the MS4 by plumbing all areas to the sanitary sewer in accordance with applicable waste water provider regulations, or self-containing all waste water/ wash water and hauling to a point of legal disposal.

g. Landscape, Park, and Recreational Facilities Management

- i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 for all public right-of-ways, flood control facilities and open channels, lakes and reservoirs, and landscape, park, and recreational facilities and activities.
- **ii.** Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Each Permittee shall implement an IPM program that includes the following:
 - (1) Pesticides are used only if monitoring indicates they are needed, and pesticides are applied according to applicable permits and established guidelines.
 - (2) Treatments are made with the goal of removing only the target organism.
 - (3) Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial non-target organisms, and the environment.
 - (4) The use of pesticides, including Organophosphates and Pyrethroids, does not threaten water quality.
 - (5) Partner with other agencies and organizations to encourage the use of IPM.
 - (6) Adopt and verifiably implement policies, procedures, and/ or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) for Public Agency Facilities and Activities.
 - (7) Policies, procedures, and ordinances shall include commitments and a schedule to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:

- (a) Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.
- (b) Quantify pesticide use by staff and hired contractors.
- (c) Demonstrate implementation of IPM alternatives where feasible to reduce pesticide use.
- iii. Each Permittee shall implement the following requirements:
 - (1) Use a standardized protocol for the routine and non-routine application of pesticides (including pre-emergents), and fertilizers.
 - (2) Ensure there is no application of pesticides or fertilizers (1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA³⁴, (2) within 48 hours of a ½-inch rain event, or (3) when water is flowing off the area where the application is to occur. This requirement does not apply to the application of aquatic pesticides described in Part VI.D.8.g.iii.(1) above.
 - (3) Ensure that no banned or unregistered pesticides are stored or applied.
 - (4) Ensure that all staff applying pesticides are certified in the appropriate category by the California Department of Pesticide Regulation, or are under the direct supervision of a pesticide applicator certified in the appropriate category.
 - (5) Implement procedures to encourage the retention and planting of native vegetation to reduce water, pesticide and fertilizer needs; and
 - (6) Store pesticides and fertilizers indoors or under cover on paved surfaces, or use secondary containment.
 - (a) Reduce the use, storage, and handling of hazardous materials to reduce the potential for spills.
 - (b) Regularly inspect storage areas.

h. Storm Drain Operation and Maintenance

- i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 for storm drain operation and maintenance.
- **ii.** Ensure that all material removed from the MS4 does not reenter the system. Solid material shall be dewatered in a contained area and liquid material shall be disposed in accordance with any of the following measures:
 - (1) Self-contain, and haul off for legal disposal; or
 - (2) Equip with a clarifier or an alternative pre-treatment device; and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.
- iii. Catch Basin Cleaning

³⁴ www.srh.noaa.gov/forecast

- (1) In areas that are not subject to a trash TMDL, each Permittee shall determine priority areas and shall update its map or list of Catch Basins with their GPS coordinates and priority:
 - <u>Priority A</u>: Catch basins that are designated as consistently generating the highest volumes of trash and/or debris.
 - <u>Priority B</u>: Catch basins that are designated as consistently generating moderate volumes of trash and/or debris.
 - <u>Priority C</u>: Catch basins that are designated as generating low volumes of trash and/or debris.

The map or list shall contain the rationale or data to support priority designations.

- (2) In areas that are not subject to a trash TMDL, each Permittee shall inspect catch basins according to the following schedule:
 - <u>Priority A</u>: A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.
 - <u>Priority B</u>: A minimum of once during the wet season and once during the dry season every year.
 - Priority C: A minimum of once per year.

Catch basins shall be cleaned as necessary on the basis of inspections. At a minimum, Permittees shall ensure that any catch basin that is determined to be at least 25% full of trash shall be cleaned out. Permittees shall maintain inspection and cleaning records for Regional Water Board review.

- (3) In areas that are subject to a trash TMDL, the subject Permittees shall implement the applicable provisions in Part VI.E.
- iv. Trash Management at Public Events
 - (1) Each Permittee shall require the following measures for any event in the public right of way or wherever it is foreseeable that substantial quantities of trash and litter may be generated, including events located in areas that are subject to a trash TMDL:
 - (a) Proper management of trash and litter generated; and
 - (b) Arrangement for temporary screens to be placed on catch basins; or
 - (c) Provide clean out of catch basins, trash receptacles, and grounds in the event area within 24 hours subsequent to the event.
- v. Trash Receptacles
 - (1) Each Permittee shall ensure trash receptacles, or equivalent trash capturing devices, are covered in areas newly identified as high trash generation areas within its jurisdiction.

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- (2) Each Permittee shall ensure that all trash receptacles are cleaned out and maintained as necessary to prevent trash overflow.
- vi. Catch Basin Labels and Open Channel Signage
 - (1) Each Permittee shall label all storm drain inlets that they own with a legible "no dumping" message.
 - (2) Each Permittee shall inspect the legibility of the stencil or label nearest each inlet prior to the wet season every year.
 - (3) Each Permittee shall record all catch basins with illegible stencils and restencil or re-label within 180 days of inspection.
 - (4) Each Permittee shall post signs, referencing local code(s) that prohibit littering and illegal dumping, at designated public access points to open channels, creeks, urban lakes, and other relevant water bodies.

vii. Additional Trash Management Practices

(1) In areas that are not subject to a trash TMDL, each Permittee shall install trash excluders, or equivalent devices, on or in catch basins or outfalls to prevent the discharge of trash to the MS4 or receiving water no later than two years after the effective date of this Order in areas defined as Priority A (Part VI.D.8.h.iii.(1)) except at sites where the application of such BMP(s) alone will cause flooding. Lack of maintenance that causes flooding is not an acceptable exception to the requirement to install BMPs. Alternatively, each Permittee may implement alternative or enhanced BMPs beyond the provisions of this Order (such as but not limited to increased street sweeping, adding trash cans near trash generation sites, prompt enforcement of trash accumulation, increased trash collection on public property, increased litter prevention messages or trash nets within the MS4) that provide substantially equivalent removal of trash. Each Permittee shall demonstrate that BMPs, which substituted for trash excluders, provide equivalent trash removal performance as excluders. When outfall trash capture is provided, revision of the schedule for inspection and cleanout of catch basins in Part VI.D.8.h.iii.(2) shall be reported in the next year's annual report.

viii. Storm Drain Maintenance

Each Permittee shall implement a program for Storm Drain Maintenance that includes the following:

- (1) Visual monitoring of Permittee-owned open channels and other drainage structures, including debris basins, for debris at least annually.
- (2) Removal of trash and debris from open channels and debris basins a minimum of once per year before the wet season.
- (3) Elimination of the discharge of contaminants during MS4 maintenance and clean outs.

- (4) Proper disposal of debris and trash removed during storm drain maintenance.
- ix. Infiltration from Sanitary Sewer to MS4/Preventive Maintenance
 - (1) Each Permittee shall implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4.
 - (2) Each Permittee that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both. Implementation of a Sewer System Management Plan in accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, may be used to fulfill this requirement.
 - (3) Each Permittee shall implement controls to limit infiltration of seepage from sanitary sewers to the MS4 where necessary. Such controls must include:
 - (a) Adequate plan checking for construction and new development;
 - (b) Incident response training for its municipal employees that identify sanitary sewer spills;
 - (c) Code enforcement inspections;
 - (d) MS4 maintenance and inspections;
 - (e) Interagency coordination with sewer agencies; and
 - (f) Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).
- x. Permittee Owned Treatment Control BMPs
 - (1) Each Permittee shall implement an inspection and maintenance program for all Permittee owned treatment control BMPs, including postconstruction treatment control BMPs.
 - (2) Each Permittee shall ensure proper operation of all treatment control BMPs and maintain them as necessary for proper operation, including all post-construction treatment control BMPs.
 - (3) Any residual water³⁵ produced by a treatment control BMP and not being internal to the BMP performance when being maintained shall be:
 - (a) Hauled away and legally disposed of; or
 - (b) Applied to the land without runoff; or
 - (c) Discharged to the sanitary sewer system (with permits or authorization); or

³⁵ To be defined in Definitions (see Attachment A)

(d) Treated or filtered to remove bacteria, sediments, nutrients, and meet the limitations set in Table 19 (Discharge Limitations for Dewatering Treatment BMPs), prior to discharge to the MS4.

 Table 19. Discharge Limitations for Dewatering Treatment BMPs³⁶

Parameter	Units	Limitation
Total Suspended Solids	mg/L	100
Turbidity	NTU	50
Oil and Grease	mg/L	10

i. Streets, Roads, and Parking Facilities Maintenance

- i. Each Permittee shall designate streets and/or street segments within its jurisdiction as one of the following:
 - Priority A: Streets and/or street segments that are designated as consistently generating the highest volumes of trash and/or debris.
 - <u>Priority B</u>: Streets and/or street segments that are designated as consistently generating moderate volumes of trash and/or debris.
 - <u>Priority C</u>: Streets and/or street segments that are designated as generating low volumes of trash and/or debris.
- **ii.** Each Permittee shall perform street sweeping of curbed streets according to the following schedule:
 - <u>Priority A</u>: Streets and/or street segments that are designated as Priority A shall be swept at least two times per month.
 - <u>Priority B</u>: Streets and/or street segments that are designated as Priority B shall be swept at least once per month.
 - <u>Priority C</u>: Streets and/or street segments that are designated as Priority C shall be swept as necessary but in no case less than once per year.
- iii. Road Reconstruction

Each Permittee shall require that for any project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing roadbed surfaces, that the following BMPs be implemented for each project.

- (1) Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall³⁷ unless required by emergency conditions.
- (2) Install sand bags or gravel bags and filter fabric at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat;

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³⁶ Technology based effluent limits.

³⁷ A probability of precipitation (POP) of 50% is required.

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- (3) Prevent the discharge of release agents including soybean oil, other oils, or diesel into the MS4 or receiving waters.
- (4) Prevent non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt.
- (5) Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.
- (6) Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.
- (7) Collect solid waste by vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.
- (8) Cover the "cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.
- (9) Cover loads with tarp before haul-off to a storage site, and do not overload trucks.
- (10) Minimize airborne dust by using water spray during grinding.
- (11) Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near MS4 or receiving waters.
- (12) Protect stockpiles with a cover or sediment barriers during a rain.
- iv. Parking Facilities Maintenance
 - (1) Permittee-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned using street sweeping equipment no less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a Permittee-owned parking lot be cleaned less than once a month.

j. Emergency Procedures

- i. Each Permittee may conduct repairs of essential public service systems and infrastructure in emergency situations with a self-waiver of the provisions of this Order as follows:
 - (1) The Permittee shall abide by all other regulatory requirements, including notification to other agencies as appropriate.
 - (2) Where the self-waiver has been invoked, the Permittee shall submit to the Regional Water Board Executive Officer a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality, no later than 30 business days after the situation of emergency has passed.
 - (3) Minor repairs of essential public service systems and infrastructure in emergency situations (that can be completed in less than one day) are not

subject to the notification provisions. Appropriate BMPs to reduce the threat to water quality shall be implemented.

k. Municipal Employee and Contractor Training

- i. Each Permittee shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees and contractors in targeted positions (whose interactions, jobs, and activities affect storm water quality) on the requirements of the overall storm water management program to:
 - (1) Promote a clear understanding of the potential for activities to pollute storm water.
 - (2) Identify opportunities to require, implement, and maintain appropriate BMPs in their line of work.
- **ii.** Each Permittee shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees and contractors who use or have the potential to use pesticides or fertilizers (whether or not they normally apply these as part of their work). Training programs shall address:
 - (1) The potential for pesticide-related surface water toxicity.
 - (2) Proper use, handling, and disposal of pesticides.
 - (3) Least toxic methods of pest prevention and control, including IPM.
 - (4) Reduction of pesticide use.

9. Illicit Connections and Illicit Discharges Elimination Program

a. General

- i. Each Permittee shall continue to implement an Illicit Connection and Illicit Discharge Elimination (IC/ID) Program to detect, investigate, and eliminate IC/IDs to the MS4. The IC/ID Program must be implemented in accordance with the requirements and performance measures specified in this Order.
- **ii.** As stated in Part VI.F.1 of this Order, each Permittee must have adequate legal authority to prohibit IC/IDs to the MS4 and enable enforcement capabilities to eliminate the source of IC/IDs.
- **iii.** Each Permittee's IC/ID Program shall consist of at least the following major program components:
 - (1) Procedures for conducting source investigations for IC/IDs
 - (2) Procedures for eliminating the source of IC/IDs
 - (3) Procedures for public reporting of illicit discharges
 - (4) Spill response plan
 - (5) IC/IDs education and training for Permittee staff

b. Illicit Discharge Source Investigation and Elimination

- i. Each Permittee shall develop written procedures for conducting investigations to identify the source of all suspected illicit discharges, including procedures to eliminate the discharge once the source is located.
- **ii.** At a minimum, each Permittee shall initiate an investigation(s) to identify and locate the source within 72 hours of becoming aware of the illicit discharge.
- **iii.** When conducting investigations, each Permittee shall comply with the following:
 - (1) Illicit discharges suspected of being sanitary sewage and/or significantly contaminated shall be investigated first.
 - (2) Each Permittee shall track all investigations to document at a minimum the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.
 - (3) Each Permittee shall investigate the source of all observed illicit discharges.
- **iv.** When taking corrective action to eliminate illicit discharges, each Permittee shall comply with the following:
 - (1) If the source of the illicit discharge has been determined to originate within the Permittee's jurisdiction, the Permittee shall immediately notify the responsible party/parties of the problem, and require the responsible party to initiate all necessary corrective actions to eliminate the illicit discharge. Upon being notified that the discharge has been eliminated, the Permittee shall conduct a follow-up investigation to verify that the discharge has been eliminated and cleaned-up to the satisfaction of the Permittee(s). Each Permittee shall document its follow-up investigation. Each Permittee may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VI.D.2.
 - (2) If the source of the illicit discharge has been determined to originate within an upstream jurisdiction, the Permittee shall notify the upstream jurisdiction and the Regional Water Board within 30 days of such determination and provide all of the information collected regarding efforts to identify its source. Each Permittee may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VI.D.2.
 - (3) If the source of the illicit discharge cannot be traced to a suspected responsible party, affected Permittees shall implement its spill response

plan and then initiate a permanent solution as described in section 9.b.v below.

v. In the event the Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the Permittee shall provide for diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the Permittee shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion.

c. Identification and Response to Illicit Connections

i. Systematic Visual Inspections for Illicit Connections

The LACFCD shall continue the systematic field visual inspections of its MS4 for illicit connections in accordance with the following schedule:

- (1) Open channels: No later than one year after the effective date of this Order, and annually thereafter.
- (2) Underground storm drains identified by the LACFCD as high priority: No later than three years after the effective date of this Order.
- (3) Underground storm drains with a diameter of 36 inches or greater: No later than by the Order expiration date.
- ii. Investigation

Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation within 21 days, to determine the following: (1) source of the connection, (2) nature and volume of discharge through the connection, and (3) responsible party for the connection.

iii. Elimination

Each Permittee, upon confirmation of an illicit MS4 connection, shall ensure that the connection is:

- (1) Permitted or documented, provided the connection will only discharge storm water and non-storm water allowed under this Order or other individual or general NPDES Permits/WDRs, or
- (2) Eliminated within 180 days of completion of the investigation, using its formal enforcement authority, if necessary, to eliminate the illicit connection.
- iv. Documentation

Formal records must be maintained for all illicit connection investigations and the formal enforcement taken to eliminate illicit connections.

d. Public Reporting of Non-Storm Water Discharges and Spills

- i. Each Permittee shall promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers and an internet site for complaints and spill reporting. Each Permittee shall also provide the reporting hotline to Permittee staff to leverage the field staff that has direct contact with the MS4 in detecting and eliminating illicit discharges.
- **ii.** Each Permittee shall implement the central point of contact and reporting hotline requirements listed in this part in one or more of the following methods:
 - (1) By participating in a County-wide sponsored hotline
 - (2) By participating in one or more Watershed Group sponsored hotlines
 - (3) Or individually within its own jurisdiction
 - (4) The LACFCD shall, in collaboration with the County, continue to maintain the 888-CLEAN-LA hotline and internet site to promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s.
- **iii.** Each Permittee shall ensure that signage adjacent to open channels, as required in Part F.8.h.vi, include information regarding dumping prohibitions and public reporting of illicit discharges.
- iv. Each Permittee shall develop and maintain written procedures that document how complaint calls are received, documented, and tracked to ensure that all complaints are adequately addressed. The procedures shall be evaluated to determine whether changes or updates are needed to ensure that the procedures accurately document the methods employed by the Permittee. Any identified changes shall be made to the procedures subsequent to the evaluation.
- v. Each Permittee shall maintain documentation of the complaint calls and record the location of the reported spill or IC/ ID and the actions undertaken in response to all IC/ID complaints, including referrals to other agencies.

e. Spill Response Plan

- i. Each Permittee shall implement a spill response plan for all sewage and other spills that may discharge into its MS4. The spill response plan shall clearly identify agencies responsible for spill response and cleanup, telephone numbers and e-mail address for contacts, and shall contain at a minimum the following requirements:
 - (1) Coordination with spill response teams throughout all appropriate departments, programs and agencies so that maximum water quality protection is provided.

- (2) Initiate investigation of all public and employee spill complaints within one business day of receiving the complaint to assess validity.
- (3) Response to spills for containment within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case the response should be within 2 hours of gaining legal access to the property.
- (4) Spills that may endanger health or the environment shall be reported to appropriate public health agencies and the Office of Emergency Services (OES).

f. Illicit Connection and Illicit Discharge Education and Training

- i. Each Permittee must continue to implement a training program regarding the identification of IC/IDs for all municipal field staff, who, as part of their normal job responsibilities (e.g., street sweeping, storm drain maintenance, collection system maintenance, road maintenance), may come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4. Contact information, including the procedure for reporting an illicit discharge, must be readily available to field staff. Training program documents must be available for review by the permitting authority.
- **ii.** Each Permittee shall ensure contractors performing privatized/contracted municipal services such as, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair are trained regarding IC/ID identification and reporting. Permittees may provide training or include contractual requirements for IC/ID identification and reporting.
- iii. Each Permittee's training program should address, at a minimum, the following:
 - (1) IC/ID identification, including definitions and examples,
 - (2) investigation,
 - (3) elimination,
 - (4) cleanup,
 - (5) reporting, and
 - (6) documentation.
- **iv.** Each Permittee must create a list of applicable positions and contractors which require IC/ID training and ensure that training is provided at least twice during the term of the Order. Each Permittee must maintain documentation of the training activities.
- v. New Permittee staff members must be provided with IC/ID training within 180 days of starting employment.

E. Total Maximum Daily Load Provisions

- 1. The provisions of this Part VI.E. implement and are consistent with the assumptions and requirements of all waste load allocations (WLAs) established in TMDLs for which some or all of the Permittees in this Order are responsible.
 - **a.** Part VI.E of this Order includes provisions that are designed to assure that Permittees achieve WLAs and meet other requirements of TMDLs covering receiving waters impacted by the Permittees' MS4 discharges. TMDL provisions are grouped by WMA (WMA) in Attachments L through R.
 - b. The Permittees subject to each TMDL are identified in Attachment K.
 - **c.** The Permittees shall comply with the applicable water quality-based effluent limitations and/or receiving water limitations contained in Attachments L through R, consistent with the assumptions and requirements of the WLAs established in the TMDLs, including implementation plans and schedules, where provided for in the State adoption and approval of the TMDL (40 CFR §122.44(d)(1)(vii)(B); Cal. Wat. Code §13263(a)).
 - **d.** A Permittee may comply with water quality-based effluent limitations and/or receiving water limitations in Attachments L through R using any lawful means.

2. Compliance Determination

a. General

- i. A Permittee shall demonstrate compliance at compliance monitoring points established in each TMDL or, if not specified in the TMDL, at locations identified in an approved TMDL monitoring plan or in accordance with an approved integrated monitoring program per Attachment E, Part VI.C.5 (Integrated Watershed Monitoring and Assessment).
- **ii.** Compliance with water quality-based effluent limitations shall be determined as described in Parts VI.E.2.d and VI.E.2.e, or for trash water quality-based effluent limitations as described in Part VI.E.5.b, or as otherwise set forth in TMDL specific provisions in Attachments L through R.
- **iii.** Pursuant to Part VI.C, a Permittee may, individually or as part of a watershedbased group, develop and submit for approval by the Regional Water Board Executive Officer a Watershed Management Program that addresses all water quality-based effluent limitations and receiving water limitations to which the Permittee is subject pursuant to established TMDLs.

b. Commingled Discharges

i. A number of the TMDLs establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may

be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL.

- **ii.** In these cases, pursuant to 40 CFR section 122.26(a)(3)(vi), each Permittee is only responsible for discharges from the MS4 for which they are owners and/or operators.
- **iii.** Where Permittees have commingled discharges to the receiving water, compliance at the outfall to the receiving water or in the receiving water shall be determined for the group of Permittees as a whole unless an individual Permittee demonstrates that its discharge did not cause or contribute to the exceedance, pursuant to subpart v. below.
- **iv.** For purposes of compliance determination, each Permittee is responsible for demonstrating that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation(s) at the outfall or receiving water limitation(s) in the target receiving water.
- v. A Permittee may demonstrate that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation or receiving water limitation in any of the following ways:
 - (1) Demonstrate that there is no discharge from the Permittee's MS4 into the applicable receiving water; or
 - (2) Demonstrate that the discharge from the Permittee's MS4 is treated to a level that does not exceed the applicable water quality-based effluent limitation; or
 - (3) For exceedances of bacteria receiving water limitations or water qualitybased effluent limitations, demonstrate through a source investigation pursuant to protocols established under California Water Code section 13178 or other accepted source identification protocols that pollutant sources within the jurisdiction of the Permittee or the Permittee's MS4 have not caused or contributed to the exceedance of the Receiving Water Limitation(s).

c. Receiving Water Limitations Addressed by a TMDL

- i. For receiving water limitations in Part V.A. associated with water bodypollutant combinations addressed in a TMDL, Permittees shall achieve compliance with the receiving water limitations in Part V.A. as outlined in this Part VI.E. and Attachments L through R of this Order.
- **ii.** A Permittee shall not be considered in violation of Part V.A. of this Order for the specific pollutant addressed in the TMDL, if it is in compliance with the applicable TMDL requirement(s), including compliance schedules, of this Part VI.E. and Attachments L through R.

iii. As long as a Permittee is in compliance with the applicable TMDL requirements in a time schedule order (TSO) issued by the Regional Water Board pursuant to California Water Code sections 13300 and 13385(j)(3), it is not the Regional Water Board's intention to take an enforcement action for violations of Part V.A. of this Order for the specific pollutant(s) addressed in the TSO. .

d. Interim Water Quality-Based Effluent Limitations and Receiving Water Limitations

- i. A Permittee shall be considered in compliance with an applicable interim water quality-based effluent limitation and/or interim receiving water limitation for the pollutant(s) associated with a specific TMDL if any of the following is demonstrated:
 - (1) There are no violations of the interim water quality-based effluent limitation for the pollutant(s) associated with a specific TMDL at the Permittee's applicable MS4 outfall(s),³⁸ including an outfall to the receiving water that collects discharges from multiple Permittees' jurisdictions;
 - (2) There are no exceedances of the applicable receiving water limitation for the pollutant(s) associated with a specific TMDL in the receiving water(s) at, or downstream of, the Permittee's outfall(s);
 - (3) There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or
 - (4) The Permittee has submitted and is fully implementing an approved Watershed Management Program pursuant to Part VI.C that provides reasonable assurance that interim water quality-based effluent limitations will be achieved per applicable compliance schedules.
 - (a) To be considered fully implementing an approved Watershed Management Program, a Permittee must be implementing actions consistent with the approved program and applicable compliance schedules, including structural BMPs.
 - (b) Structural storm water BMPs must be designed and maintained to treat storm water runoff from the 85th percentile, 24-hour storm, and maintenance records must be up-to-date and available for inspection by the Regional Water Board.
 - (c) A Permittee that does not implement the Watershed Management Program in accordance with the milestones and compliance schedules

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³⁸ An outfall may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

shall demonstrate compliance with its interim water quality-based effluent limitations and/or receiving water limitations pursuant to Part VI.E.2.d.i.(1)-(3), above.

e. Final Water Quality-based Effluent Limitations and/or Receiving Water Limitations

- i. A Permittee shall be deemed in compliance with an applicable final water quality-based effluent limitation and/or final receiving water limitation for the pollutant(s) associated with a specific TMDL if any of the following is demonstrated:
 - (1) There are no violations of the final water quality-based effluent limitation for the specific pollutant at the Permittee's applicable MS4 outfall(s)³⁹;
 - (2) There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the Permittee's outfall(s); or
 - (3) There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant(s) associated with a specific TMDL.

3. USEPA Established TMDLs

TMDLs established by the USEPA, to which Permittees are subject, do not contain an implementation plan adopted pursuant to California Water Code section 13242. However, USEPA has included implementation recommendations as part of these TMDLs. In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires Permittees subject to WLAs in USEPA established TMDLs to propose and implement best management practices (BMPs) that will be effective in ultimately achieving the numeric WLAs. The Regional Water Board may, at its discretion, revisit this decision within the term of this Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

- **a.** Each Permittee shall propose BMPs to achieve the WLAs contained in the applicable USEPA established TMDL(s), and a schedule for implementing the BMPs that is as short as possible, in a Watershed Management Program Plan.
- **b.** Each Permittee may either individually submit a Watershed Management Program Plan, or may jointly submit a plan with all Permittees subject to the WLAs contained in the USEPA established TMDL.

³⁹ Ibid.

- **c.** At a minimum, each Permittee shall include the following information in its Watershed Management Program Plan, relevant to each applicable USEPA established TMDL:
 - i. Available data demonstrating the current quality of the Permittee's MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
 - **ii.** A detailed description of BMPs that have been implemented, and/or are currently being implemented by the Permittee to achieve the WLA(s), if any;
 - **iii.** A detailed time schedule of specific actions the Permittee will take in order to achieve the applicable WLA(s);
 - **iv.** A demonstration that the time schedule requested is as short as possible, taking into account the time since USEPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);
 - (1) For the Malibu Creek Nutrient TMDL established by USEPA in 2003, in no case shall the time schedule to achieve the final numeric WLAs exceed five years from the effective date of this Order; and
 - v. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and numeric milestones and the date(s) for their achievement.
- **d.** Each Permittee subject to a WLA in a TMDL established by USEPA since 2010 shall submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than one year after the effective date of this Order.
- e. Each Permittee subject to a WLA in a TMDL established by USEPA prior to 2010 shall submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than six months after the effective date of this Order.
- **f.** If a Permittee does not submit a Watershed Management Program Plan, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and the Permittee does not make the necessary revisions within 90 days of written notification that plan is inadequate, the Permittee shall be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.
- 4. State Adopted TMDLs where Final Compliance Deadlines have Passed

- **a.** Permittees shall comply immediately with water quality-based effluent limitations and/or receiving water limitations to implement WLAs in state-adopted TMDLs for which final compliance deadlines have passed pursuant to the TMDL implementation schedule.
- **b.** Where a Permittee believes that additional time to comply with the final water quality-based effluent limitations and/or receiving water limitations is necessary, a Permittee may within 45 days of Order adoption request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board's consideration.
- **c.** Permittees may either individually request a TSO, or may jointly request a TSO with all Permittees subject to the water quality-based effluent limitations and/or receiving water limitations, to implement the WLAs in the state-adopted TMDL.
- **d.** At a minimum, a request for a time schedule order shall include the following:
 - i. Data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
 - A detailed description and chronology of structural controls and source control efforts, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
 - **iii.** Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations;
 - iv. A detailed time schedule of specific actions the Permittee will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations;
 - v. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and
 - **vi.** If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:
 - (1) Effluent limitation(s) for the pollutant(s) of concern; and
 - (2) Actions and milestones leading to compliance with the effluent limitation(s).
- 5. Water Quality-Based Effluent Limitations for Trash

Permittees assigned a Waste Load Allocation in a trash TMDL shall comply as set forth below.

- **a. Effluent Limitations**: Permittees shall comply with the interim and final water quality-based effluent limitations for trash set forth in Attachments L through R for the following Trash TMDLs:
 - i. Lake Elizabeth Trash TMDL (Attachment L)
 - ii. Santa Monica Bay Nearshore and Offshore Debris TMDL (Attachment M)
 - iii. Malibu Creek Watershed Trash TMDL (Attachment M)
 - iv. Ballona Creek Trash TMDL (Attachment M)
 - v. Machado Lake Trash TMDL (Attachment N)
 - vi. Los Angeles River Trash TMDL (Attachment O)
 - vii. Peck Road Park Lake Trash TMDL (Attachment O)
 - viii. Echo Park Lake Trash TMDL (Attachment O)
 - ix. Legg Lake Trash TMDL (Attachment P)

b. Compliance

- i. Pursuant to California Water Code section 13360(a), Permittees may comply with the trash effluent limitations using any lawful means. Such compliance options are broadly classified as *full capture*, *partial capture*, *institutional controls*, or *minimum frequency of assessment and collection*, as described below, and any combination of these may be employed to achieve compliance:
 - (1) Full Capture Systems:
 - (a) The Basin Plan authorizes the Regional Water Board Executive Officer to certify *full capture systems*, which are systems that meet the operating and performance requirements as described in this Order, and the procedures identified in "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System."⁴⁰
 - (b) Permittees are authorized to comply with their effluent limitations through certified *full capture systems* provided the requirements of

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⁴⁰ The Regional Water Board currently recognizes eight *full capture systems*. These are: Vortex Separation Systems (VSS) and seven other Executive Officer certified *full capture systems*, including specific types or designs of trash nets; two gross solids removal devices (GSRDs); catch basin brush inserts and mesh screens; vertical and horizontal trash capture screen inserts; and a connector pipe screen device. See August 3, 2004 Los Angeles Regional Water Quality Control Board Memorandum titled "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System.

paragraph (c), immediately below, and any conditions in the certification, continue to be met.

- (c) Permittees may comply with their effluent limitations through progressive installation of *full capture systems* throughout their jurisdictional areas until all areas draining to Lake Elizabeth, Malibu Creek, Ballona Creek, Machado Lake, the Los Angeles River system, Legg Lake, Peck Road Park Lake, and/or Echo Park Lake are addressed. For purposes of this Order, attainment of the effluent limitations shall be conclusively presumed for any drainage area to Lake Elizabeth, Malibu Creek (and its tributaries), Ballona Creek (and its tributaries), Machado Lake, the Los Angeles River (and its tributaries), Legg Lake, Peck Road Lake, Echo Park Lake, and/or Lincoln Park Lake where certified *full capture systems* treat all drainage from the area, provided that the *full capture systems* are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Regional Water Board.
 - (i) A Permittee shall be deemed in compliance with its final effluent limitation if it demonstrates that all drainage areas under its jurisdiction and/or authority are serviced by appropriate certified *full capture systems* as described in paragraph (1)(c).
 - (ii) A Permittee shall be deemed in compliance with its interim effluent limitations, where applicable:
 - 1. By demonstrating that *full capture systems* treat the percentage of drainage areas in the watershed that corresponds to the required trash abatement.
 - 2. Alternatively, a Permittee may propose a schedule for installation of *full capture systems* in areas under its jurisdiction and/or authority within a given watershed, targeting first the areas of greatest trash generation, for the Executive Officer's approval. The Executive Officer shall not approve any such schedule that does not result in timely compliance with the final effluent limitations, consistent with the established TMDL implementation schedule and applicable State policies. A Permittee shall be deemed in compliance with its interim effluent limitations provided it is fully in compliance with any such approved schedule.
- (2) Partial Capture Devices and Institutional Controls: Permittees may comply with their interim and final effluent limitations through the installation of *partial capture devices* and the application of *institutional controls*.⁴¹

⁴¹ While interim effluent limitations may be complied with using *partial capture devices*, compliance with final effluent limitations cannot be achieved with the exclusive use of *partial capture devices*.

- (a) Trash discharges from areas serviced solely by *partial capture devices* may be estimated based on demonstrated performance of the device(s) in the implementing area.⁴² That is, trash reduction is equivalent to the *partial capture devices*' trash removal efficiency multiplied by the percentage of drainage area serviced by the devices.
- (b) Except as provided in subdivision (c), immediately below, trash discharges from areas addressed by *institutional controls* and/or *partial capture devices* (where site-specific performance data is not available) shall be calculated using a mass balance approach, based on the daily generation rate (DGR) for a representative area.⁴³ The DGR shall be determined from direct measurement of trash deposited in the drainage area during any thirty-day period between June 22nd and September 22nd exclusive of rain events⁴⁴, and shall be re-calculated every year thereafter unless a less frequent period for recalculation is approved by the Regional Water Board Executive Officer. The DGR shall be calculated as the total amount of trash collected during this period divided by the length of the collection period.

DGR = (Amount of trash collected during a 30-day collection period⁴⁵ / (30 days)

The DGR for the applicable area under the Permittees' jurisdiction and/or authority shall be extrapolated from that of the representative drainage area(s). A mass balance equation shall be used to estimate the amount of trash discharged during a storm event.⁴⁶ The *Storm Event Trash Discharge* for a given rain event in the Permittee's drainage area shall be calculated by multiplying the number of days since the last street sweeping by the DGR and subtracting the amount of any trash recovered in the catch basins.⁴⁷ For each day of a storm event that generates precipitation greater than 0.25 inch, the Permittee shall calculate a *Storm Event Trash Discharge*.

Storm Event Trash Discharge = [(Days since last street sweeping*DGR)] – $[Amount of trash recovered from catch basins]^{48}$

The sum of the *Storm Event Trash Discharges* for the storm year shall be the Permittee's calculated annual trash discharge.

⁴² Performance shall be demonstrated under different conditions (e.g. low to high trash loading).

⁴³ The area(s) should be representative of the land uses and activities within the Permittees' authority and shall be approved by the Executive Officer prior to the 30-day collection period.

⁴⁴ Provided no special events are scheduled that may affect the representative nature of that collection period.

⁴⁵ Between June 22nd and September 22nd

⁴⁶ Amount of trash shall refer to the uncompressed volume (in gallons) or drip-dry weight (in pounds) of trash collected.

⁷ Any negative values shall be considered to represent a zero discharge.

⁴⁸ When more than one storm event occurs prior to the next street sweeping the discharge shall be calculated from the date of the last assessment.

Total Storm Year Trash Discharge = ∑Storm Event Trash Discharges from Drainage Area

- (c) The Executive Officer may approve alternative compliance monitoring approaches for calculating total storm year trash discharge, upon finding that the program will provide a scientifically-based estimate of the amount of trash discharged from the Permittee's MS4.
- (3) Combined Compliance Approaches:

Permittees may comply with their interim and final effluent limitations through a combination of *full capture systems*, *partial capture devices*, and *institutional controls*. Where a Permittee relies on a combination of approaches, it shall demonstrate compliance with the interim and final effluent limitations as specified in (1)(c) in areas where *full capture systems* are installed and as specified in (2)(a) or (2)(b), as appropriate, in areas where *partial capture devices* and *institutional controls* are applied.

(4) Minimum Frequency of Assessment and Collection Approach:

If allowed in a trash TMDL and approved by the Executive Officer, a Permittee may alternatively comply with its final effluent limitations by implementing a program for *minimum frequency of assessment and collection* (MFAC) in conjunction with BMPs. To the satisfaction of the Executive Officer, the MFAC/BMP program must meet the following criteria:

- (a) The MFAC/BMP Program includes an initial minimum frequency of trash assessment and collection and suite of structural and/or nonstructural BMPs. The MFAC/BMP program shall include collection and disposal of all trash found in the receiving water and shoreline. Permittees shall implement an initial suite of BMPs based on current trash management practices in land areas that are found to be sources of trash to the water body. The initial minimum frequency of trash assessment and collection shall be set as specified in the following TMDLs:
 - (i) Malibu Creek Watershed Trash TMDL
 - (ii) Machado Lake Trash TMDL
 - (iii) Legg Lake Trash TMDL
- (b) The MFAC/BMP Program includes reasonable assurances that it will be implemented by the responsible Permittees.
- (c) MFAC protocols may be based on SWAMP protocols for rapid trash assessment, or alternative protocols proposed by Permittees and approved by the Regional Water Board Executive Officer.
- (d) Implementation of the MFAC/BMP program should include a Health and Safety Program to protect personnel. The MFAC/BMP program

shall not require Permittees to access and collect trash from areas where personnel are prohibited.

- (e) The Regional Water Board Executive Officer may approve or require a revised assessment and collection frequency and definition of the critical conditions under the MFAC:
 - (i) To prevent trash from accumulating in deleterious amounts that cause nuisance or adversely affect beneficial uses between collections;
 - (ii) To reflect the results of trash assessment and collection;
 - (iii) If the amount of trash collected does not show a decreasing trend, where necessary, such that a shorter interval between collections is warranted; or
 - (iv) If the amount of trash collected is decreasing such that a longer interval between collections is warranted.
- (f) At the end of the implementation period, a revised MFAC/BMP program may be required if the Regional Water Board Executive Officer determines that the amount of trash accumulating between collections is causing nuisance or otherwise adversely affecting beneficial uses.
- (g) With regard to (4)(e)(i), (4)(e)(ii), or (4)(e)(iii), above, the Regional Water Board Executive Officer is authorized to allow responsible Permittees to implement additional structural or non-structural BMPs in lieu of modifying the monitoring frequency.
- **ii.** If a Permittee is not in compliance with its applicable interim and/or final effluent limitation as identified in Attachments L through R, then it shall be in violation of this Order.
 - (1) A Permittee relying on *partial capture devices* and/or *institutional controls* that has violated its interim and/or final effluent limitation(s) shall be presumed to have violated the applicable limitation for each day of each storm event that generated precipitation greater than 0.25 inch during the applicable storm year, except those storm days on which it establishes that its cumulative Storm Event Trash Discharges has not exceeded the applicable effluent limitation.
 - (2) If a Permittee relying on *full capture systems* has failed to demonstrate that the *full capture systems* for any drainage area are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Regional Water Board, and that it is in compliance with any conditions of its certification, shall be presumed to have discharged trash in an amount that corresponds to the percentage of the baseline waste load allocation represented by the drainage area in question.

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- (a) A Permittee may overcome this presumption by demonstrating (using any of the methods authorized in Part VI.E.5.b) that the actual or calculated discharge for that drainage area is in compliance with the applicable interim or final effluent limitation.
- iii. Each Permittee shall be held liable for violations of the effluent limitations assigned to their area. If a Permittee's compliance strategy includes *full* or *partial capture devices* and it chooses to install a full or partial capture device in the MS4 physical infrastructure of another public entity, it is responsible for obtaining all necessary permits to do so. If a Permittee believes it is unable to obtain the permitts needed to install a full capture or partial capture device within another Permittee's MS4 physical infrastructure, either Permittee may request the Executive Officer to hold a conference with the Permittees. Nothing in this Order shall affect the right of that public entity or a Permittee to seek indemnity or other recourse from the other as they deem appropriate. Nothing in this subsection shall be construed as relieving a Permittee of any liability that the Permittee would otherwise have under this Order.

c. Monitoring and Reporting Requirements (pursuant to California Water Code section 13383)

- i. Each Permittee shall submit a TMDL Compliance Report as part of its Annual Report detailing compliance with the applicable interim and/or final effluent limitations. Reporting shall include the information specified below. The report shall be submitted on the reporting form specified by the Regional Water Board Executive Officer. The report shall be signed under penalty of perjury by the Permittee's principal executive officer or ranking elected official or duly authorized representative of the officer, consistent with Part V.B of Attachment D (Standard Provisions), who is responsible for ensuring compliance with this Order. Each Permittee shall be charged with and shall demonstrate compliance with its applicable effluent limitations beginning with its October 31, 2012 TMDL Compliance Report.
 - (1) <u>Reporting Compliance based on Full Capture Systems</u>: Permittees shall provide information on the number and location of full capture installations, the sizing of each full capture installation, the drainage areas addressed by these installations, and compliance with the applicable interim or final effluent limitation, in its TMDL Compliance Report. The Los Angeles Water Board will periodically audit sizing, performance, and other data to validate that a system satisfies the criteria established for a *full capture system* and any conditions established by the Regional Water Board Executive Officer in the certification.
 - (2) <u>Reporting Compliance based on Partial Capture Systems and/or</u> <u>Institutional Controls</u>:
 - (a) Using Performance Data Specific to the Permittee's Area: In its TMDL Compliance Report, a Permittee shall provide: (i) site-specific performance data for the applicable device(s); (ii) information on the

number and location of such installations, and the drainage areas addressed by these installations; and (iii) calculated compliance with the applicable effluent limitations.

- (b) Using Direct Measurement of Trash Discharge: Permittees shall provide an accounting of DGR and trash removal via street sweeping, catch basin clean outs, etc., in a database to facilitate the calculation of discharge for each rain event. The database shall be maintained and provided to the Regional Water Board for inspection upon request. In its TMDL Compliance Report, a Permittee shall provide information on its annual DGR, calculated storm year discharge, and compliance with the applicable effluent limitation.
- (3) Reporting Compliance based on Combined Compliance Approaches:

Permittees shall provide the information specified in Part VI.E.5.c.i(1) for areas where *full capture systems* are installed and that are specified in Part VI.E.5.c.i(2)(a) or (b), as appropriate, for areas where *partial capture devices* and *institutional controls* are applied. In its TMDL Compliance Report, a Permittee shall also provide information on compliance with the applicable effluent limitation based on the combined compliance approaches.

(4) Reporting Compliance based on an MFAC/BMP Approach:

The MFAC/BMP Program includes a Trash Monitoring and Reporting Plan, and a requirement that the responsible Permittees will self-report any non-compliance with its provisions. The results and report of the Trash Monitoring and Reporting Plan must be submitted to Regional Board with the Permittee's Annual Report.

ii. Violation of the reporting requirements of this Part shall be punishable pursuant to, inter alia, California Water Code section 13385, subdivisions (a)(3) and (h)(1), and/or section 13385.1.

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ATTACHMENT A – DEFINITIONS

The following are definitions for terms in this Order:

Arithmetic Mean (µ)

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$

where:

 Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Authorized Non-Storm Water Discharge

Authorized non-storm water discharges are discharges that are not composed entirely of storm water and that are either: (1) separately regulated by an individual or general NPDES permit and allowed to discharge to the MS4 when in compliance with all NPDES permit conditions; (2) authorized by USEPA⁴⁹ pursuant to sections 104(a) or 104(b) of CERCLA that either (i) will comply with water quality standards as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA or (ii) are subject to (a) a written waiver of ARARs by USEPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation, pursuant to 40 CFR section 300.415(j); or (3) necessary for emergency responses purposes, including flows from emergency fire fighting activities.

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Best Management Practices (BMPs)

BMPs are practices or physical devices or systems designed to prevent or reduce pollutant loading from storm water or non-storm water discharges to receiving waters, or designed to reduce the volume of storm water or non-storm water discharged to the receiving water.

Bioaccumulative

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Biofiltration

A LID BMP that reduces storm water pollutant discharges by intercepting rainfall on vegetative canopy, and through evapotranspiration, incidental infiltration, and filtration. As described in

⁴⁹ These typically include short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or USEPA or State-required compliance testing of potable water treatment plants, as part of a USEPA authorized groundwater remediation action under CERCLA.

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the *Ventura County Technical Guidance Manual*, studies have demonstrated that bioinfiltration of 1.5 times the storm water quality design volume (SWQDv) provides approximately equivalent or greater reductions in pollutant loading when compared to bioretention or infiltration of the SWQDv.⁵⁰ Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Order is defined to include only systems designed to facilitate incidental infiltration. Biofiltration BMPs include bioretention systems with an underdrain and bioswales.

Bioretention

A LID BMP that reduces storm water runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the *in-situ* soil. As defined in this Order, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated in this Order as biofiltration.

Bioswale

A LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect storm water runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes.

Carcinogenic

Pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Conditionally Exempt Essential Non-Storm Water Discharge

Conditionally exempt essential non-storm water discharges are certain categories of discharges that are not composed entirely of storm water and that are allowed by the Regional Water Board to discharge to the MS4, if in compliance with all specified requirements; are not otherwise regulated by an individual or general NPDES permit; and are essential public services that are directly or indirectly required by other State or federal statute and/or regulation. These include non-storm water discharges from potable water sources and non-emergency fire fighting activities. Conditionally exempt essential non-storm water discharges may contain minimal amounts of pollutants, however, when in compliance with industry standard BMPs and control measures, do not result in significant environmental effects. (See 55 Fed. Reg. 47990, 47995 (Nov. 16, 1990)).

Conditionally Exempt Non-Storm Water Discharge

Conditionally exempt non-storm water discharges are certain categories of discharges that are not composed entirely of storm water and that are either not sources of pollutants or may

⁵⁰ Geosyntec Consultants and Larry Wallker Associates. 2011. Ventura County Technical Guidance Manual for Stormwater Quality and Control Measures, Manual Update 2011. Appendix D. Prepared for the Ventura Countywide Stormwater Quality Management Program. July 13, 2011. pp. D-6 – D-15.

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contain only minimal amounts of pollutants and when in compliance with specified BMPs do not result in significant environmental effects. (See 55 Fed. Reg. 47990, 47995 (Nov. 16, 1990)).

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effective Impervious Area (EIA)

EIA is the portion of the surface area that is hydrologically connected to a drainage system via a hardened conveyance or impervious surface without any intervening median to mitigate the flow volume.

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Effluent Limitation

Any restriction imposed on quantities, discharge rates, and concentrations of pollutants, which are discharged from point sources to waters of the U.S. (40 CFR § 122.2).

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Enclosed Bays

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in California Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger

Any discharger that is not a new discharger. An existing discharger includes an "increasing discharger" (i.e., any existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its permitted discharge after the effective date of this Order).

Green roof

A LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a planter box flow-through treatment BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain.

Illicit Discharge

Any discharge into the MS4 or from the MS4 into a receiving water that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes any non-storm water discharge, except authorized non-storm water discharges; conditionally exempt non-storm water discharges; and non-storm water discharges resulting from natural flows specifically identified in Part III.A.1.d.

Improved drainage system

An improved drainage system is a drainage system that has been channelized or armored. The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system.

Infiltration

A LID BMP that reduces storm water runoff by capturing and infiltrating the runoff into in-situ soils or amended on-site soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement.⁵¹

Inland Surface Waters

All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Low Impact Development (LID)

LID consists of building and landscape features designed to retain or filter storm water runoff.

Major Outfall

Major municipal separate storm sewer outfall (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more). (40 CFR § 122.26(b)(5))

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Maximum Extent Practicable (MEP)

In selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to the maximum extent

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⁵¹ Some types of infiltration BMPs such as dry wells, may meet the definition of a Class V, deep well injection facility and may be subject to permitting under U.S. EPA requirements.

practicable. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. The following factors may be useful to consider:

- 1. Effectiveness: Will the BMP address a pollutant of concern?
- 2. Regulatory Compliance: Is the EMP in compliance with storm water regulations as well as other environmental regulations?
- 3. Public acceptance: Does the BMP have public support?
- 4. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?
- 5. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc.?

After selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented.

Median

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (*n*) is odd, then the median = $X_{(n+1)/2}$. If *n* is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the *n*/2 and *n*/2+1).

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR Part 136, Attachment B (revised as of July 3, 1999).

Minimum Level (ML)

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Municipal Separate Storm Sewer System (MS4)

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved

management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying storm water;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR § 122.2.

(40 CFR § 122.26(b)(8))

Natural drainage system

A natural drainage system is a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system.

Non-Storm Water Discharge

Any discharge into the MS4 or from the MS4 into a receiving water that is not composed entirely of storm water.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

Ocean Waters

The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent Pollutants

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Planter boxes and other flow-through treatment BMPs

Planter boxes and other flow-through treatment BMPs include modular, vault type planter boxes or "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain. Planter boxes do not allow for incidental infiltration and therefore do not meet the requirements for biofiltration as defined in this Order. However, planter boxes may be used to meet the Water Quality Mitigation Criteria as specified in Part VI.D.6.c.iv of this Order.

Pollutant Minimization Program (PMP)

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be

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particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to California Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in California Water Code Section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Rainfall harvest and use

Rainfall harvest and use is an LID BMP system designed to capture runoff from a roof and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department.

Receiving Water

A "water of the United States" into which waste and/or pollutants are or may be discharged.

Receiving Water Limitation

Any applicable numeric or narrative water quality objective or criterion, or limitation to implement the applicable water quality objective or criterion, for the receiving water as contained in Chapter 3 or 7 of the Water Quality Control Plan for the Los Angeles Region (Basin Plan), water quality control plans or policies adopted by the State Water Board, or federal regulations, including but not limited to, 40 CFR § 131.38.

Reporting Level (RL)

RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with Section 2.4.2 of the SIP or established in accordance with Section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System

The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Significant Ecological Areas (SEAs)

Areas designated by the Los Angeles County Board of Supervisors in 1981 with the adoption of the General Plan. The collection of SEAs together was intended to designate critical components of the biodiversity of Los Angeles County as it was known and understood at that time.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)

Standard Deviation is a measure of variability that is calculated as follows:

- $\sigma = (\sum [(x \mu)^2]/(n 1))^{0.5}$ where:
 - x is the observed value;
 - μ is the arithmetic mean of the observed values; and
 - n is the number of samples.

Storm Water

Storm water runoff, snow melt runoff, and surface runoff and drainage related to precipitation events (pursuant to 40 CFR § 122.26(b)(13); 55 Fed. Reg. 47990, 47995 (Nov. 16, 1990)).

Toxicity Reduction Evaluation (TRE)

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Water Quality-based Effluent Limitation

Any restriction imposed on quantities, discharge rates, and concentrations of pollutants, which are discharged from point sources to waters of the U.S. necessary to achieve a water quality standard.

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ACRONYMS AND ABBREVIATIONS

AMEL	Average Monthly Effluent Limitation
ASBS	Areas of Special Biological Significance
В	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los
	Angeles and Ventura Counties
ВСТ	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 °C
BPT	Best Practicable Treatment Control Technology
C	
	Water Quality Objective
CCR	California Code of Regulations
CEEIN	California Environmental Education Interagency Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittees
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental
	Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Ep	Erosion potential
ESCP	Erosion and Sediment Control Plan
Facility	Los Angeles County MS4s
GIS	Geographical Information System
gpd	gallons per day
IC	Inhibition Coefficient
IC ₁₅	Concentration at which the organism is 15% inhibited
IC ₂₅	Concentration at which the organism is 25% inhibited
IC ₄₀	Concentration at which the organism is 40% inhibited
IC ₅₀	Concentration at which the organism is 50% inhibited
IC/ID	Illicit Connection and Illicit Discharge Elimination
IPM	Integrated Pest Management
LA	Load Allocations
LID	Low Impact Development
LOEC	Lowest Observed Effect Concentration
LUPs	Linear Underground/Overhead Projects
μg/L	micrograms per Liter

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MCM	Minimum Control Measure
mg/L	milligrams per Liter
MĎEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NAICS	North American Industry Classification System
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PIPP	Public Information and Participation Program
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
RAP	Reasonable Assurance Program
REAP	Rain Event Action Plan
Regional Water Board	California Regional Water Quality Control Board, Los Angeles
DCO ₂	Region
RGOs	Retail Gasoline Outlets
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SEA	Significant Ecological Area
SIC	Standard Industrial Classification
SIP	State Implementation Policy (Policy for Implementation of
	Toxics Standards for Inland Surface Waters, Enclosed Bays,
	and Estuaries of California)
SMR	Self Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
SWQDv	Storm Water Quality Design Volume
SWQPA	State Water Quality Protected Area
TAC	Test Acceptability Criteria
Thermal Plan	Water Quality Control Plan for Control of Temperature in the
	Coastal and Interstate Water and Enclosed Bays and Estuaries
	of California
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon

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Greater Los Angeles County Municipal Separate Storm Sewer System

TRE TSD TSS TU _c USEPA WDR WDID	Toxicity Reduction Evaluation Technical Support Document Total Suspended Solid Chronic Toxicity Unit United States Environmental Protection Agency Waste Discharge Requirements
WET WLA	Waste Discharge Identification Whole Effluent Toxicity Waste Load Allocations
WAA WQBELs WQS %	Watershed Management Area Water Quality-Based Effluent Limitations Water Quality Standards Percent

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ATTACHMENT B - WATERSHED MANAGEMENT AREA MAPS

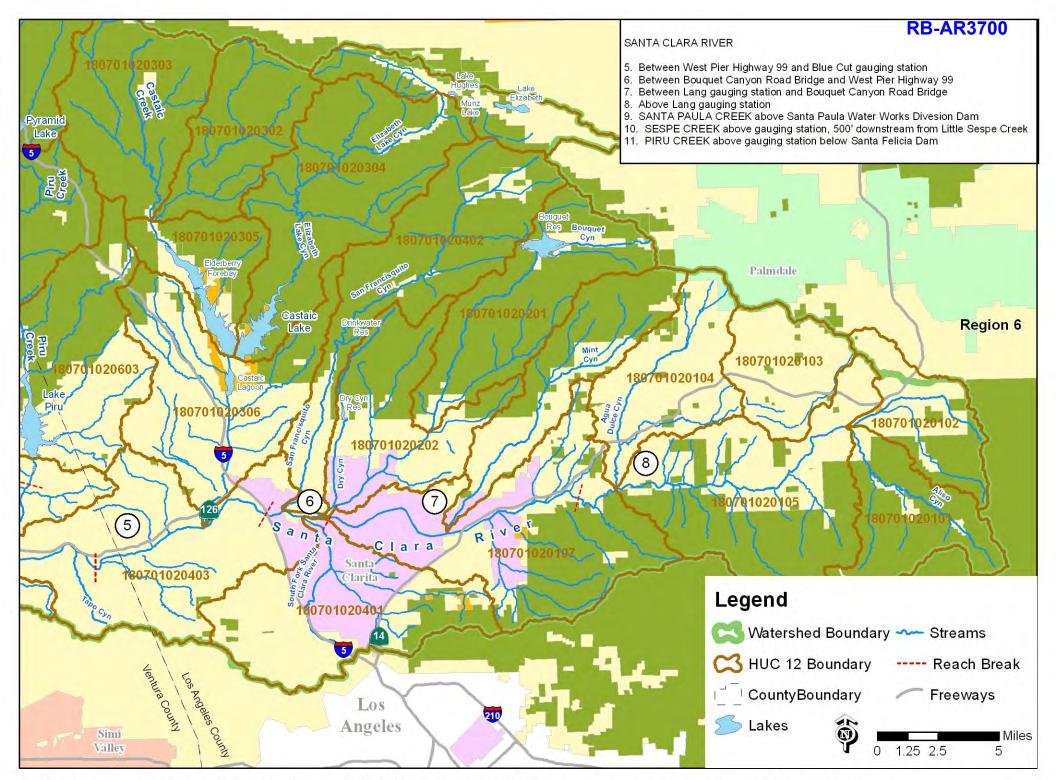


Figure B-1: Upper Santa Clara River Watershed Management Area Hydrologic Units.



Figure B-2: Santa Monica Bay Watershed Management Area Hydrologic Units.

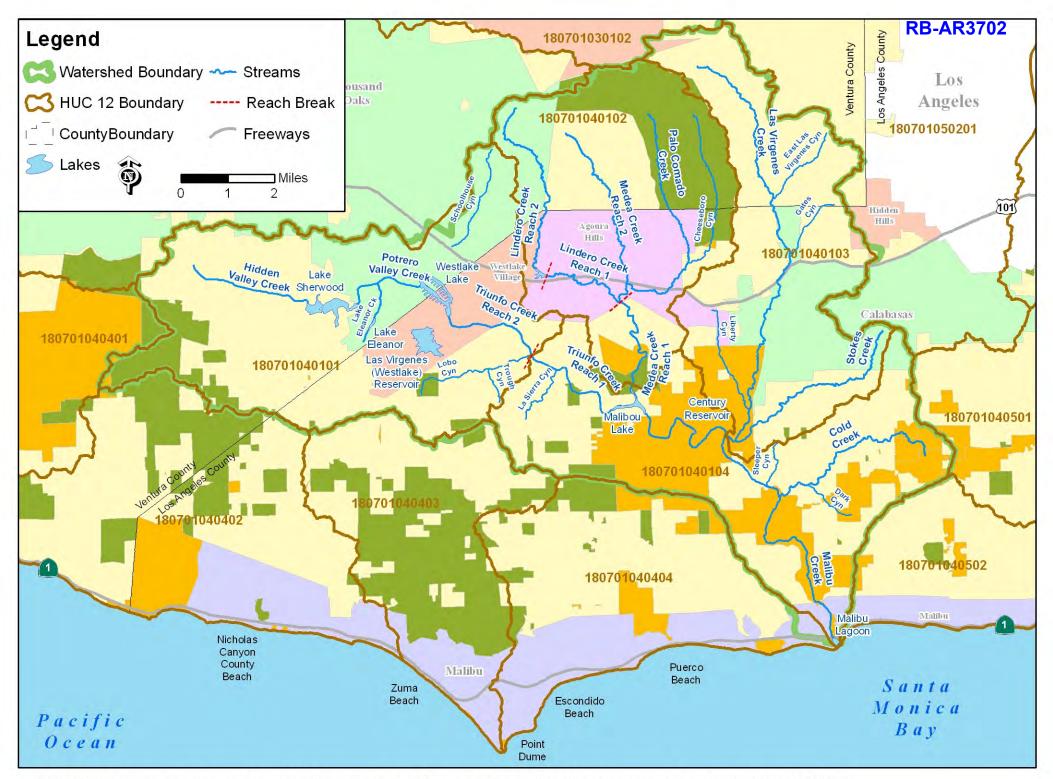


Figure B-2a: Malibu Creek Watershed Hydrologic Units (Santa Monica Bay WMA).

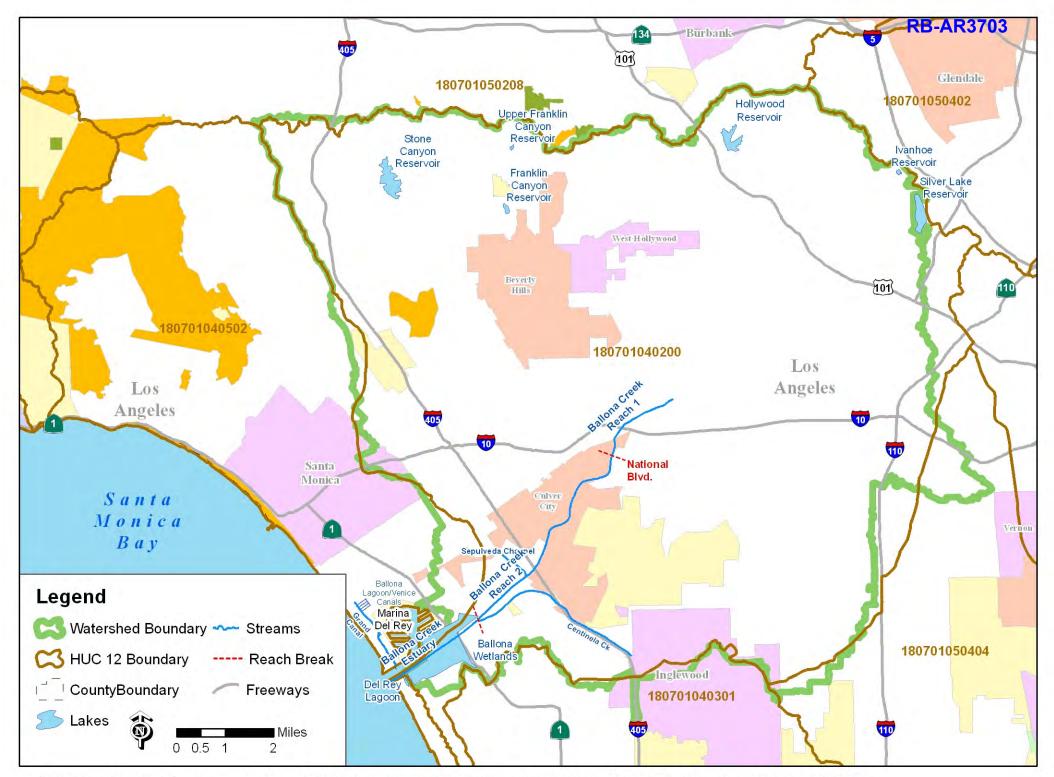


Figure B-2b: Ballona Creek Watershed Hydrologic Units (Santa Monica Bay WMA).

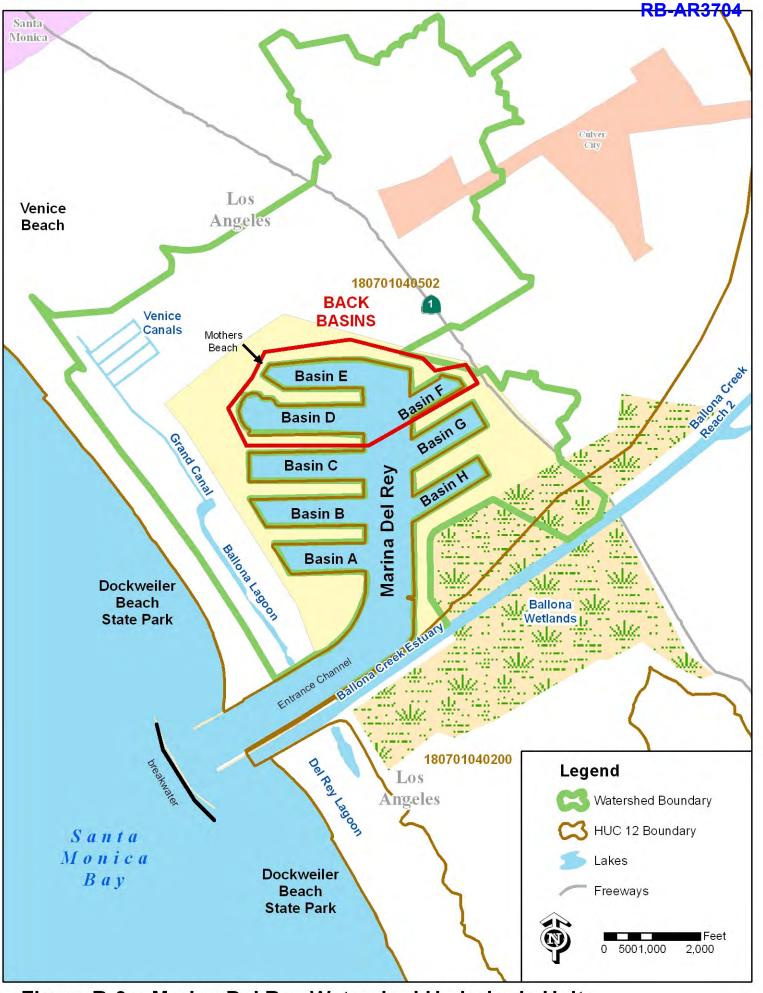


Figure B-2c: Marina Del Rey Watershed Hydrologic Units (Santa Monica Bay WMA).

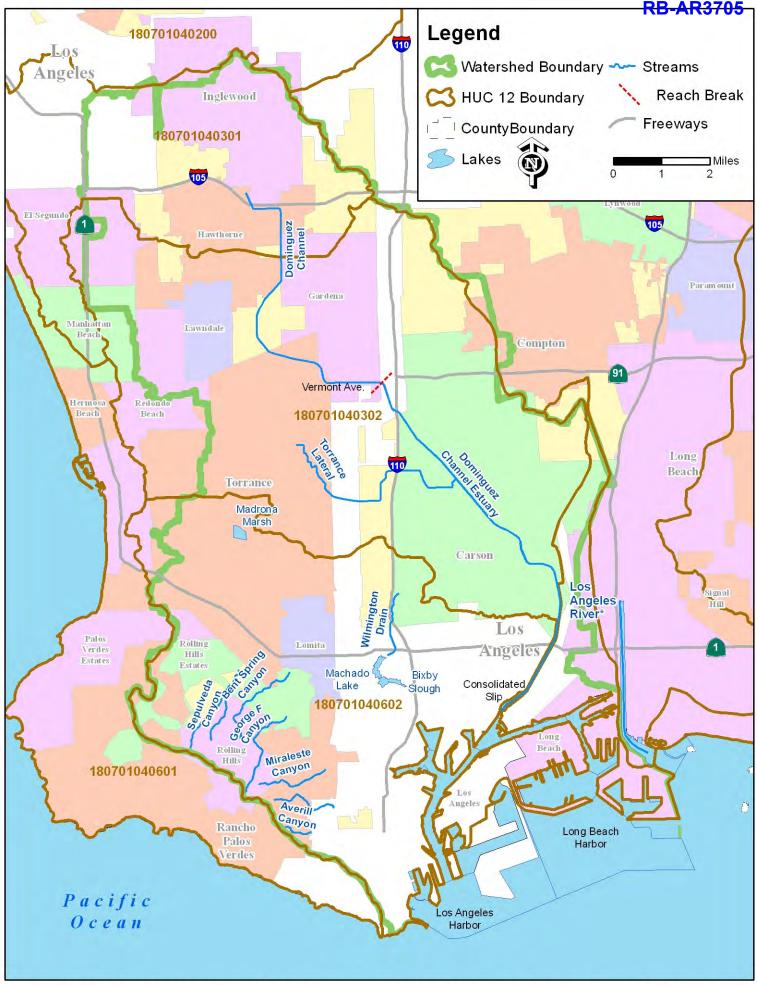


Figure B-3: Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area Hydrologic Units.

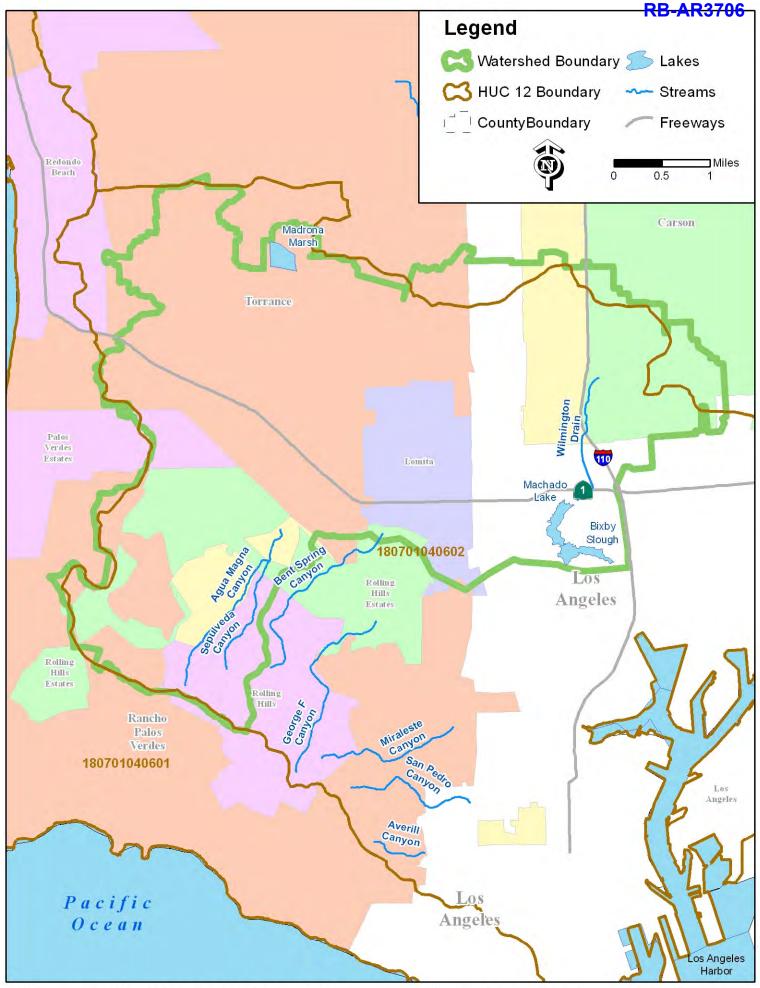


Figure B-3a: Machado Lake Watershed Hydrologic Units (Dominguez Channel & LA/LB Harbors WMA).

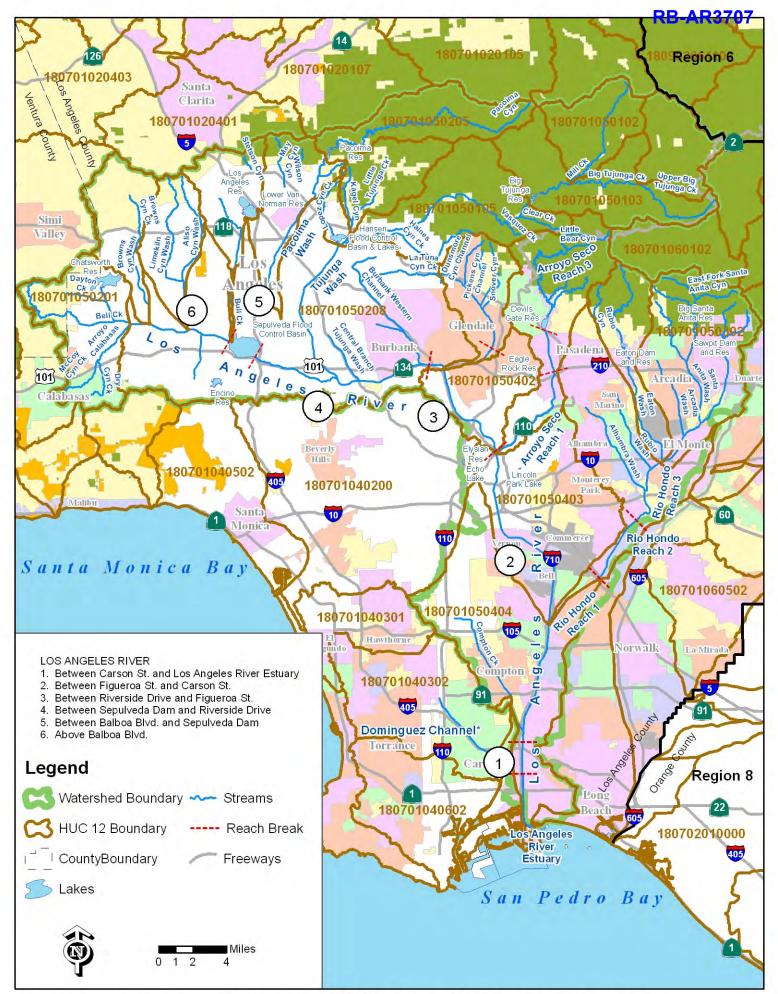


Figure B-4: Los Angeles River Watershed Management Area Hydrologic Units.

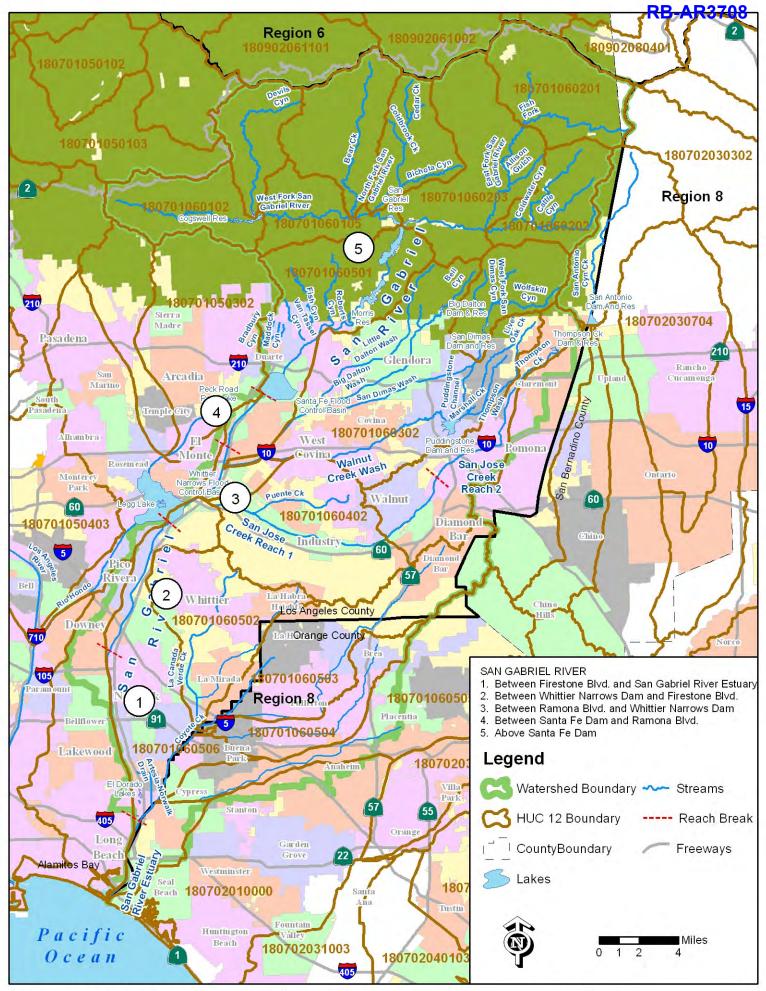


Figure B-5: San Gabriel River Watershed Management Area Hydrologic Units.

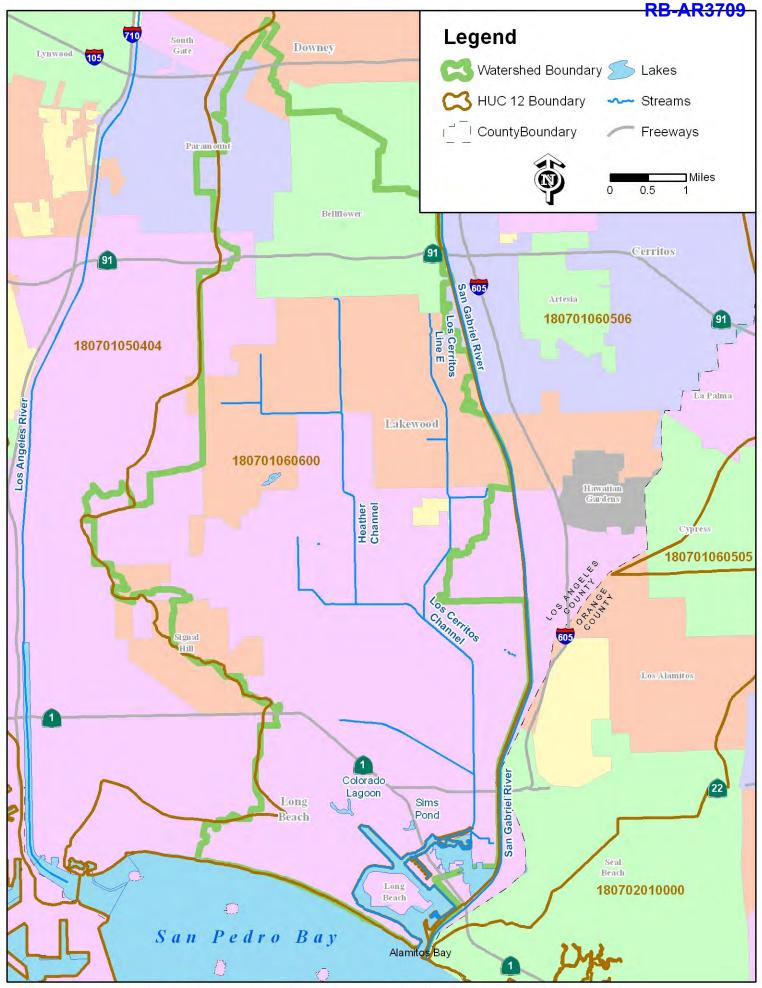


Figure B-6: Los Cerritos Channel and Alamitos Bay Watershed Management Area Hydrologic Units.

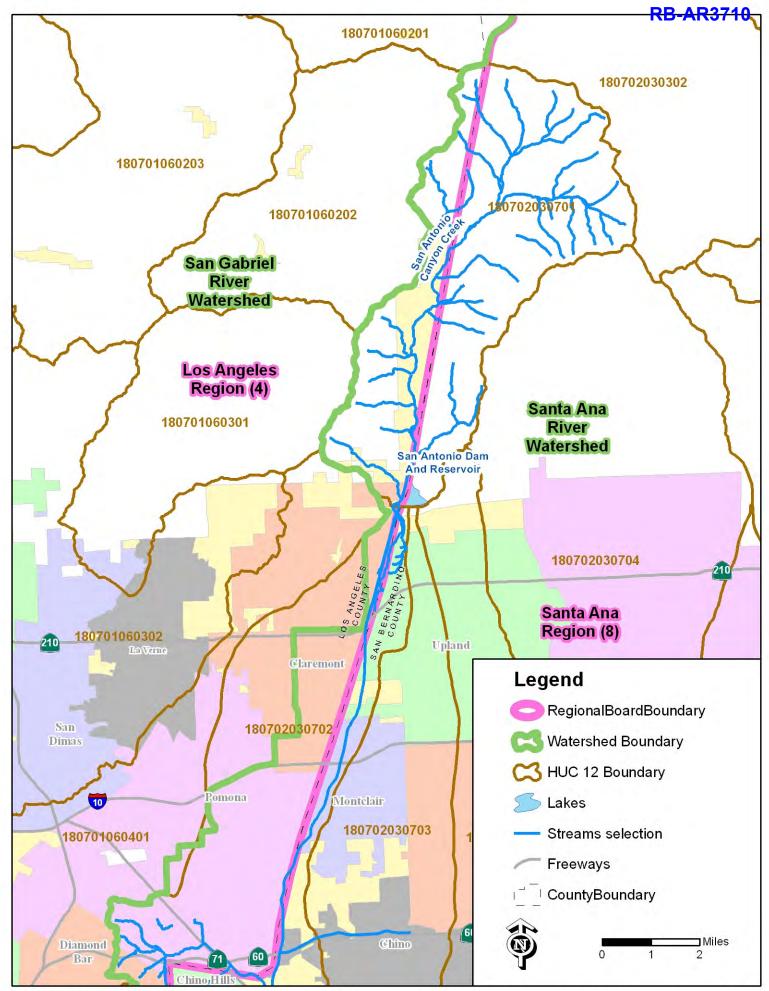


Figure B-7: Middle San Antonio Creek Subwatershed Hydrologic Units.

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ATTACHMENT C - MS4 MAPS BY WATERSHED MANAGEMENT AREA

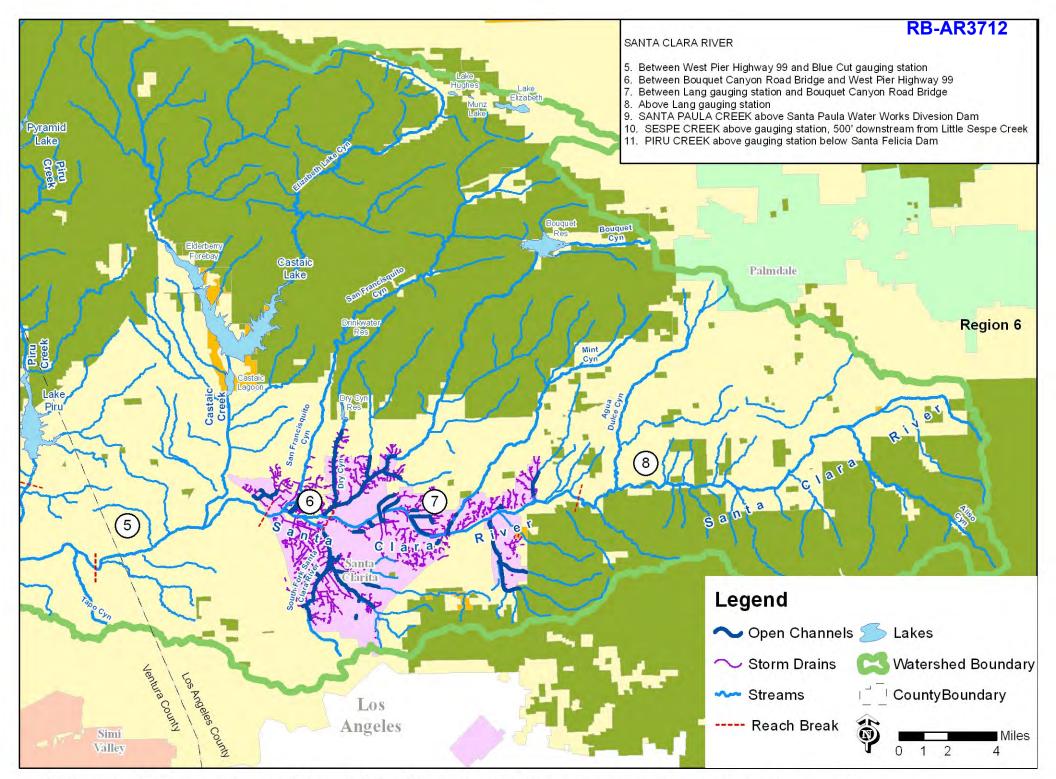


Figure C-1: Upper Santa Clara River Watershed Management Area Flow Schematic.

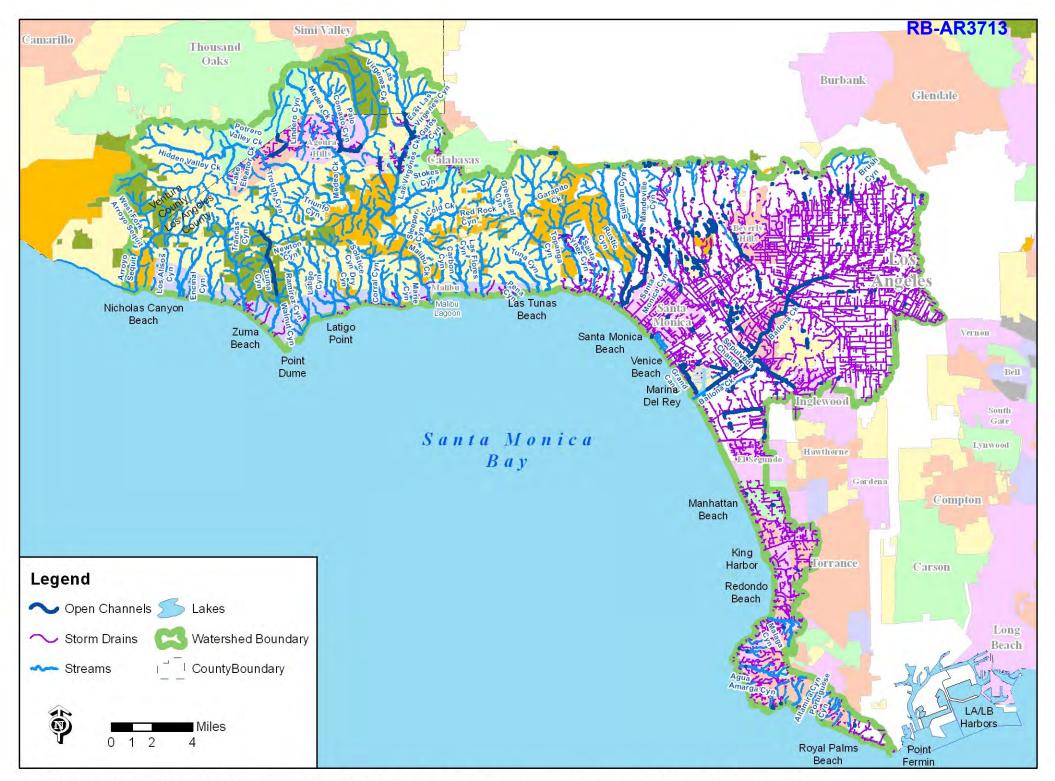


Figure C-2: Santa Monica Bay Watershed Management Area Flow Schematic.

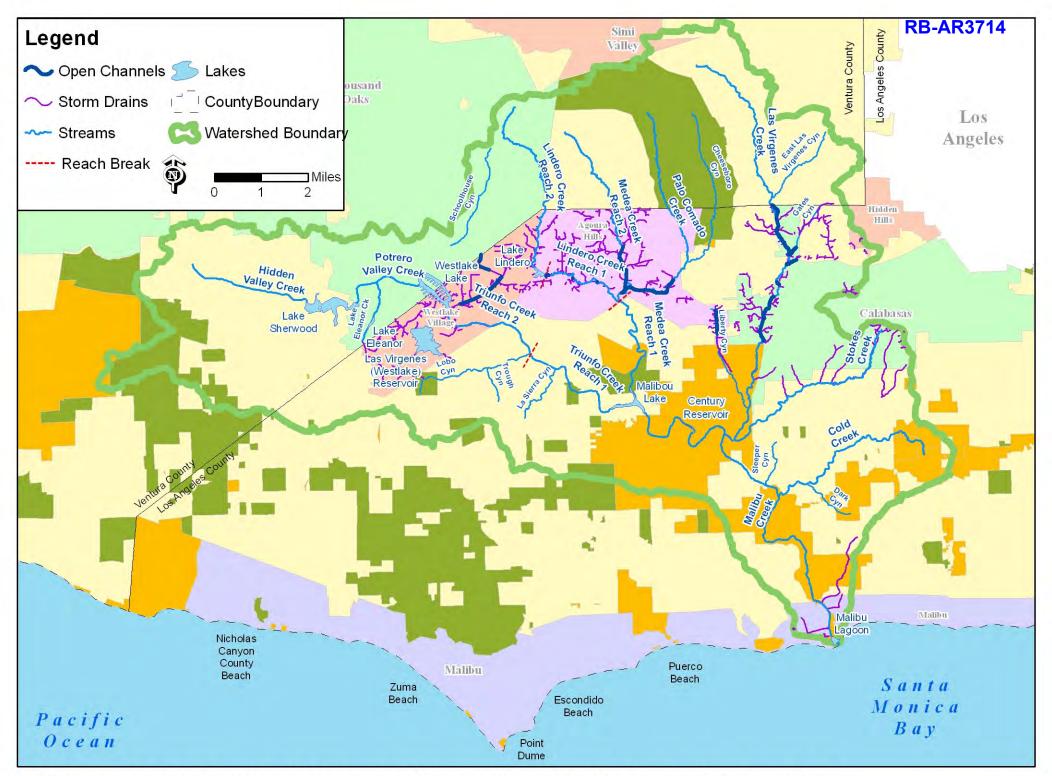


Figure C-2a: Malibu Creek Watershed Flow Schematic (Santa Monica Bay WMA).

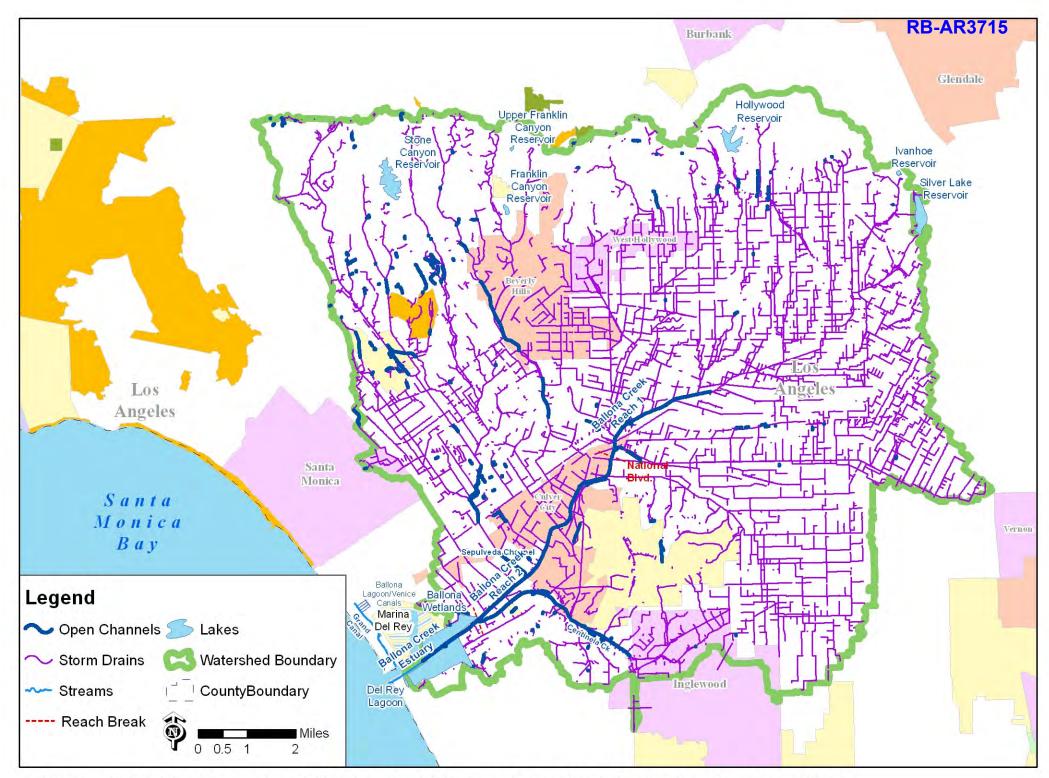


Figure C-2b: Ballona Creek Watershed Flow Schematic (Santa Monica Bay WMA).



Figure C-2c: Marina Del Rey Watershed Flow Schematic (Santa Monica Bay WMA).

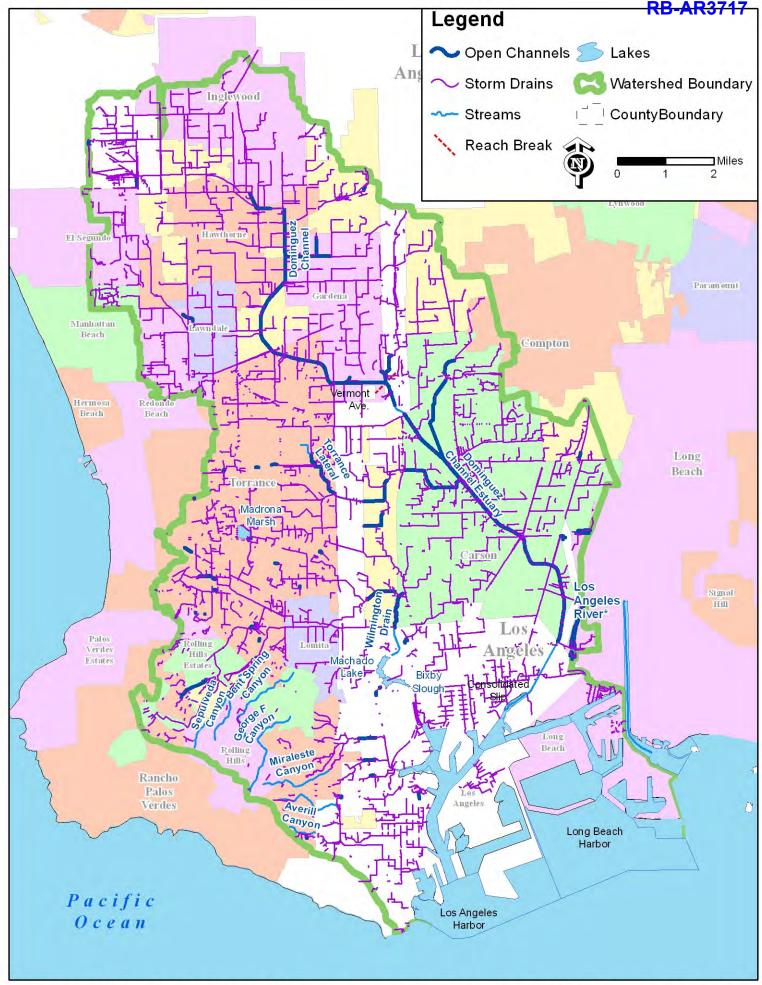


Figure C-3: Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area Flow Schematic.

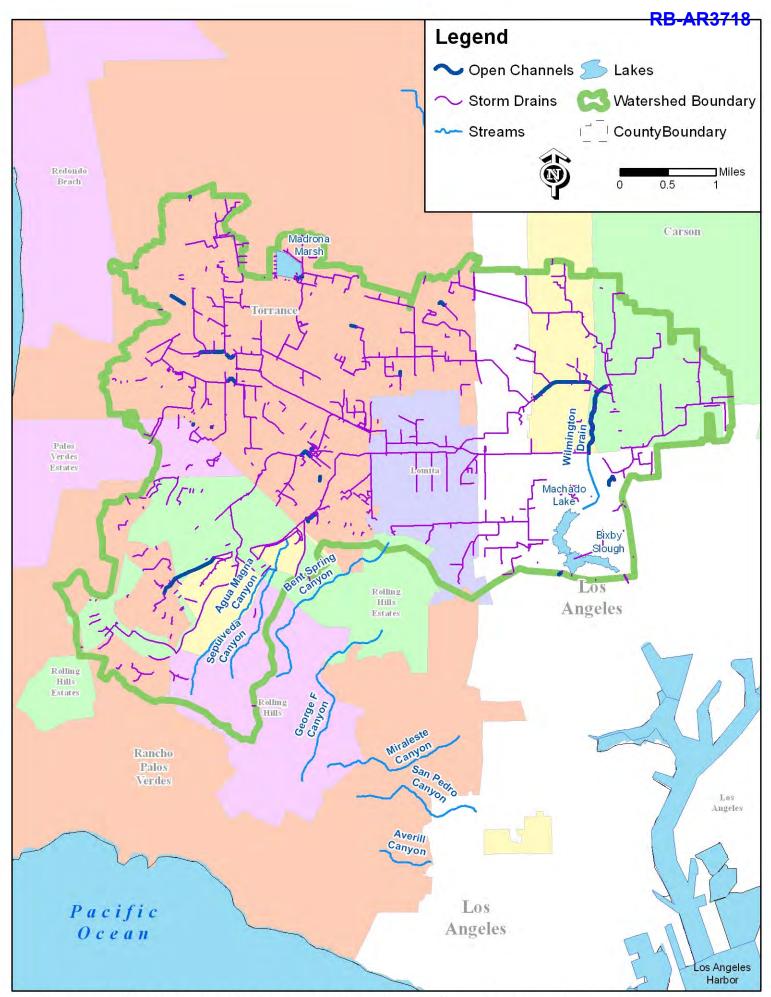


Figure C-3a: Machado Lake Watershed Flow Schematic (Dominguez Channel & LA/LB Harbors WMA).

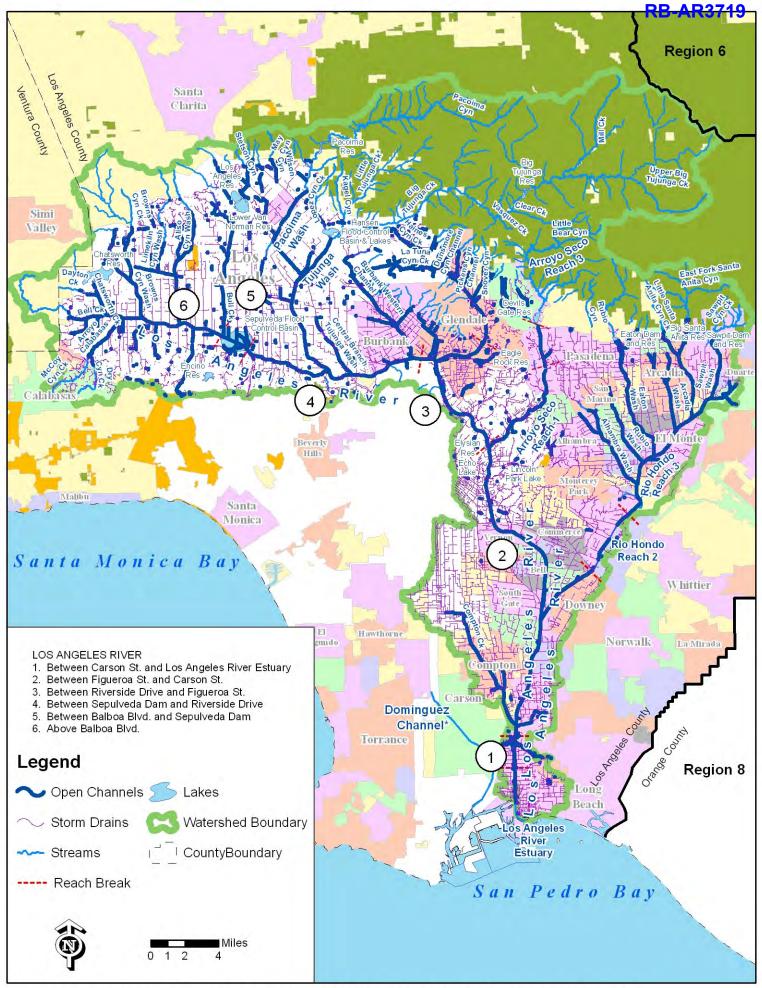


Figure C-4: Los Angeles River Watershed Management Area Flow Schematic.

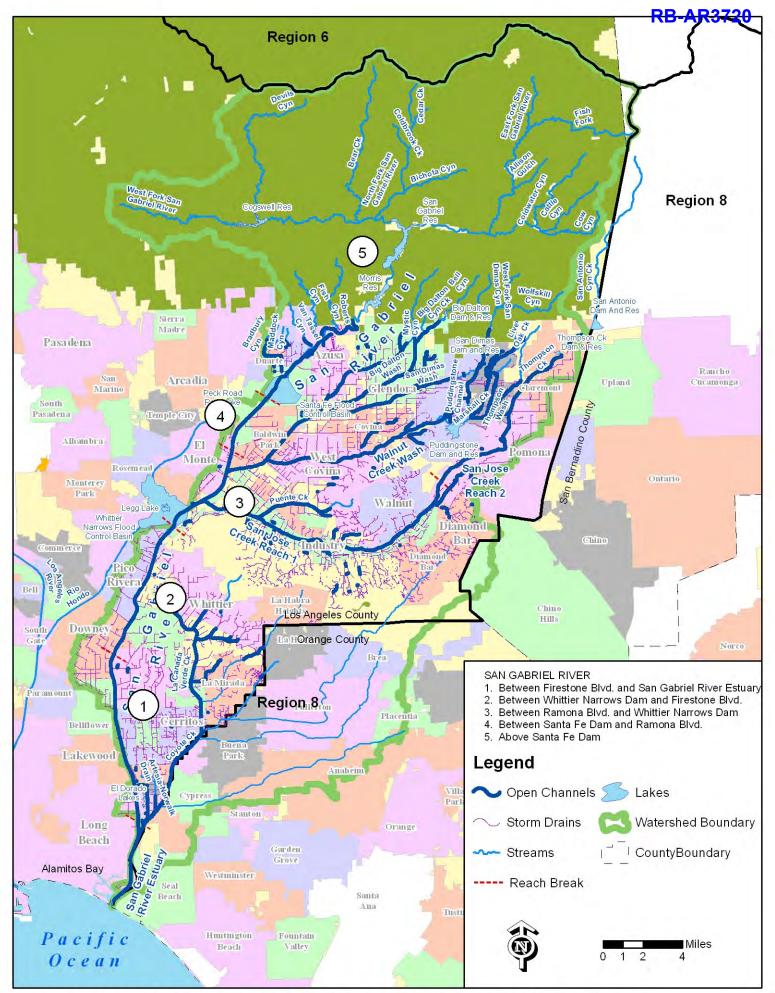


Figure C-5: San Gabriel River Watershed Management Area Flow Schematic.

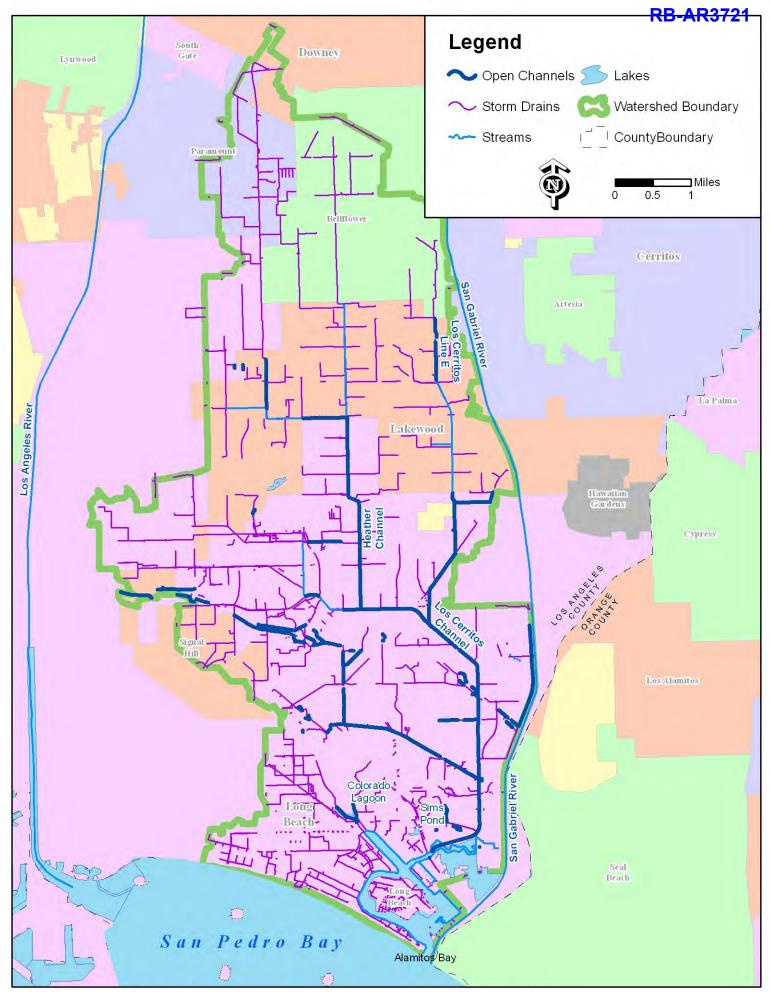


Figure C-6: Los Cerritos Channel and Alamitos Bay Watershed Management Area Flow Schematic.

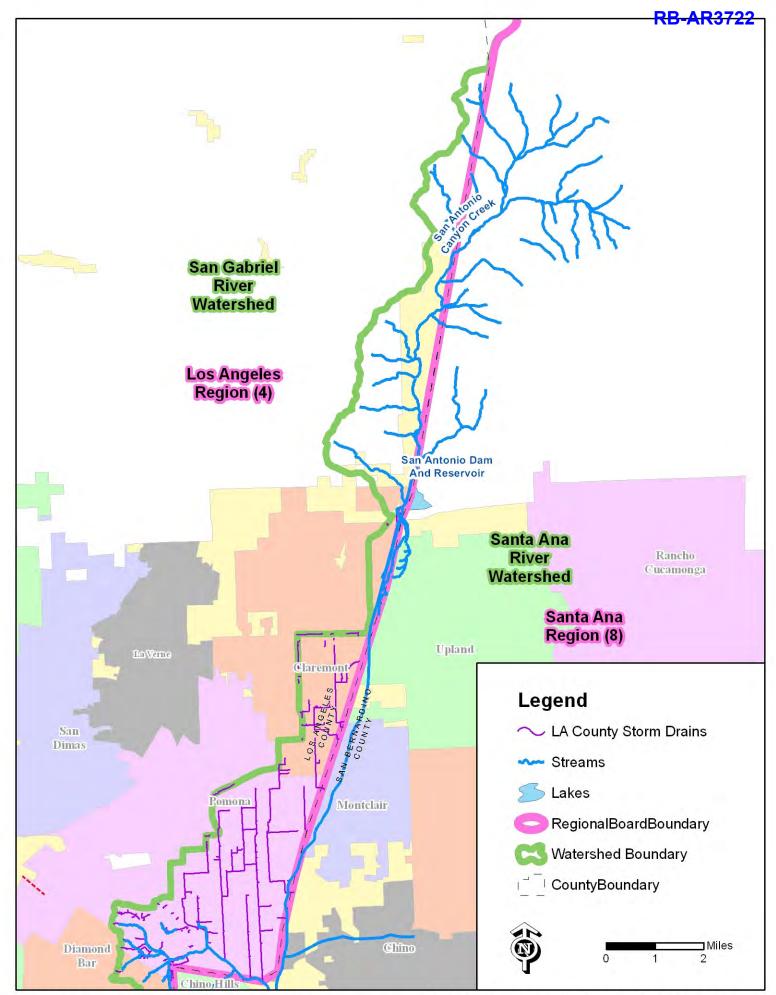


Figure C-7: Middle San Antonio Creek Subwatershed Flow Schematic.

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

- Dischargers must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act, its regulations, and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof [40 CFR section 122.41(a); California Water Code sections 13261, 13263, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350, 13385].
- 2. Dischargers must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement [40 CFR section 122.41(a)(1)].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [40 CFR section 122.41(c)].

C. Duty to Mitigate

Dischargers shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [40 CFR section 122.41(d)].

D. Proper Operation and Maintenance

Dischargers shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Permittee only when necessary to achieve compliance with the conditions of this Order [40 CFR section 122.41(e)].

E. Property Rights

- **1.** This Order does not convey any property rights of any sort, or any exclusive privileges [40 CFR section 122.41(g)].
- 2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations [40 CFR section 122.5(c)].

F. Inspection and Entry

Dischargers shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR section 122.41(i); California Water Code sections 13267 and 13383]:

- Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 CFR section 122.41(i)(1); California Water Code sections 13267 and 13383];
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 CFR section 122.41(i)(2); California Water Code sections 13267 and 13383];
- **3.** Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 CFR section 122.41(i)(3)]; California Water Code sections 13267 and 13383; and
- 4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the California Water Code, any substances or parameters at any location [40 CFR section 122.41(i)(4); California Water Code sections 13267 and 13383].

G. Bypass

- 1. Definitions
 - **a.** "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 CFR section 122.41(m)(1)(i)].
 - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 CFR section 122.41(m)(1)(ii)].

- Bypass not exceeding limitations. Dischargers may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is also for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below [40 CFR section 122.41(m)(2)].
- **3.** *Prohibition of bypass.* Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless [40 CFR section 122.41(m)(4)(i)]:
 - **a.** Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [40 CFR section 122.41(m)(4)(i)(A)];
 - **c.** There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR section 122.41(m)(4)(i)(B)]; and
 - d. The Permittee submitted notices to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [40 CFR section 122.41(m)(4)(i)(C)].
- 4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions Permit Compliance I.G.3 above [40 CFR section 122.41(m)(4)(ii)].
- 5. Notice
 - Anticipated bypass. If a Permittee knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 CFR section 122.41(m)(3)(i)].
 - b. Unanticipated bypass. Dischargers shall submit notice of an unanticipated bypass as required in Standard Provisions Reporting V.E below (24-hour notice) [40 CFR section 122.41(m)(3)(ii)].

H. Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR section 122.41(n)(1)].

- Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR section 122.41(n)(2)].
- 2. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 CFR section 122.41(n)(3)]:
 - **a.** An upset occurred and that the Permittee can identify the cause(s) of the upset [40 CFR section 122.41(n)(3)(i)];
 - **b.** The permitted facility was, at the time, being properly operated [40 CFR section 122.41(n)(3)(ii)];
 - **c.** The Permittee submitted notice of the upset as required in Standard Provisions Reporting V.E.2.b below (24-hour notice) [40 CFR section 122.41(n)(3)(iii)]; and
 - d. The Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [40 CFR section 122.41(n)(3)(iv)].
- **3.** Burden of proof. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof [40 CFR section 122.41(n)(4)].

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Permittee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [40 CFR section 122.41(f)].

B. Duty to Reapply

If a Permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Permittee must apply for and obtain a new permit [40 CFR section 122.41(b)].

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Permittee and incorporate such

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other requirements as may be necessary under the CWA and the California Water Code [40 CFR sections 122.41(I)(3) and 122.61].

III. STANDARD PROVISIONS – MONITORING

- **A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR section 122.41(j)(1)].
- B. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 for the analysis of pollutants unless another test procedure is required under 40 CFR subchapters N or O or is otherwise specified in this Order for such pollutants [40 CFR sections 122.41(j)(4) and 122.44(i)(1)(iv)].

IV. STANDARD PROVISIONS – RECORDS

- **A.** Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 CFR section 122.41(j)(2)].
- **B.** Records of monitoring information shall include:
 - The date, exact place, and time of sampling or measurements [40 CFR section 122.41(j)(3)(i)];
 - The individual(s) who performed the sampling or measurements [40 CFR section 122.41(j)(3)(ii)];
 - 3. The date(s) analyses were performed [40 CFR section 122.41(j)(3)(iii)];
 - 4. The individual(s) who performed the analyses [40 CFR section 122.41(j)(3)(iv)];
 - 5. The analytical techniques or methods used [40 CFR section 122.41(j)(3)(v)]; and
 - 6. The results of such analyses [40 CFR section 122.41(j)(3)(vi)].
- **C.** Claims of confidentiality for the following information will be denied [40 CFR section 122.7(b)]:
 - 1. The name and address of any permit applicant or Permittee [40 CFR section 122.7(b)(1)]; and

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2. Permit applications and attachments, permits, and effluent data [40 CFR section 122.7(b)(2)].

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

Dischargers shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, Dischargers shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order [40 CFR section 122.41(h)] [California Water Code sections 13267 and 13383].

B. Signatory and Certification Requirements

- All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below [40 CFR section 122.41(k)(1)].
- 2. All applications submitted to the Regional Water Board shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer includes: (i) the chief executive officer of the agency (e.g., Mayor), or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., City Manager, Director of Public Works, City Engineer, etc.).[40 CFR section 122.22(a)(3)].
- **3.** All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - **a.** The authorization is made in writing by a person described in Standard Provisions Reporting V.B.2 above [40 CFR section 122.22(b)(1)];
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) [40 CFR section 122.22(b)(2)]; and
 - **c.** The written authorization is submitted to the Regional Water Board [40 CFR section 122.22(b)(3)].

- 4. If an authorization under Standard Provisions Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions Reporting V.B.3 above must be submitted to the Regional Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR section 122.22(c)].
- **5.** Any person signing a document under Standard Provisions Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR section 122.22(d)].

C. Monitoring Reports

- 1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order [40 CFR section 122.22(I)(4)].
- Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices [40 CFR section 122.41(l)(4)(i)].
- **3.** If a Permittee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 CFR section 122.41(I)(4)(ii)].
- **4.** Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified by the Regional Water Board in this Order [40 CFR section 122.41(l)(4)(iii)].

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 CFR section 122.41(I)(5)].

E. Twenty-Four Hour Reporting

- 1. Dischargers shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 CFR section 122.41(I)(6)(i)].
- **2.** The following shall be included as information that must be reported within 24 hours under this paragraph [40 CFR section 122.41(I)(6)(ii)]:
 - **a.** Any unanticipated bypass that exceeds any effluent limitation in this Order [40 CFR sections 122.41(I)(6)(ii)(A) and 122.41(g)].
 - b. Any upset that exceeds any effluent limitation in this Order [40 CFR section 122.41(l)(6)(ii)(B)].
 - **c.** Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Water Board in this Order to be reported within 24 hours [40 CFR section (I)(6)(ii)(C) and 122.44(g)].
- **3.** The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 CFR section 122.41(I)(6)(iii)].

F. Planned Changes

Dischargers shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 CFR section 122.41(I)(1)]:

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR section 122.29(b) [40 CFR section 122.41(l)(1)(i)]; or
- 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order [40 CFR section 122.41(l)(1)(ii)].

The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application

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process or not reported pursuant to an approved land application plan [40 CFR section 122.41(l)(1)(iii)].

G. Anticipated Noncompliance

Dischargers shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements [40 CFR section 122.41(I)(2)].

H. Other Noncompliance

Dischargers shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above [40 CFR section 122.41(I)(7)].

I. Other Information

When a Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Permittee shall promptly submit such facts or information [40 CFR section 122.41(I)(8)].

VI. STANDARD PROVISIONS – ENFORCEMENT

- **A.** The Regional Water Board and State Water Board is authorized to enforce the terms of this Order under several provisions of the California Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318

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or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 CFR section 122.41(a)(2)] [California Water Code sections 13385 and 13387].

- **C.** Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 CFR section 122.41(a)(3)].
- **D.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 CFR section 122.41(j)(5)].
- E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 CFR section 122.41(k)(2)].

VII. ADDITIONAL STANDARD CONDITIONS APPLICABLE TO SPECIFIC CATEGORIES OF NPDES PERMITS [40 CFR section 122.42]

A. Municipal separate storm sewer systems. The operator of a large or medium MS4 or a municipal separate storm sewer that has been designated by the Regional Water Board or USEPA under 40 CFR section 122.26(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such MS4. The report shall include [40 CFR section 122.42(c)]:

- **1.** The status of implementing the components of the storm water management program that are established as permit conditions [40 CFR section 122.42(c)(1)];
- Proposed changes to the storm water management programs that are established as permit condition. Such proposed changes shall be consistent with 40 CFR section 122.26(d)(2)(iii) [40 CFR section 122.42(c)(2)]; and
- Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR section 122.26(d)(2)(iv) and (d)(2)(v) [40 CFR section 122.42(c)(3)];
- **4.** A summary of data, including monitoring data, that is accumulated throughout the reporting year [40 CFR section 122.42(c)(4)];
- **5.** Annual expenditures and budget for year following each annual report [40 CFR section 122.42(c)(5)];
- **6.** A summary describing the number and nature of enforcement actions, inspections, and public education programs [40 CFR section 122.42(c)(6)];
- Identification of water quality improvements or degradation [40 CFR section 122.42(c)(7)];
- **B.** *Storm water discharges.* The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR section 122.26(e)(7) shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit. [40 CFR section 122.42(d)].

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013 Phone (213) 576 - 6600 • Fax (213) 576 - 6640 http://www.waterboards.ca.gov/losangeles

MONITORING AND REPORTING PROGRAM - No. TBD

FOR

ORDER R4-2012-XXXX NPDES PERMIT NO. CAS004001

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING THE COUNTY OF LOS ANGELES, AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH

Month Date, 2012

ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

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ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

I. MONITORING AND REPORTING PROGRAM (MRP)

Section 122.48 of Title 40 of the Code of Federal Regulations requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and California laws and/or regulations.

II. PURPOSE AND SCOPE

A. Primary Objectives

The primary objectives of the Monitoring Program are to:

- 1. Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
- 2. Assess compliance with receiving water limitations and water quality-based effluent limitations (WQBELs) established to implement Total Maximum Daily Load (TMDL) wet weather and dry weather wasteload allocations (WLAs).
- 3. Characterize pollutant loads in MS4 discharges.
- 4. Identify sources of pollutants in MS4 discharges.
- 5. Measure and improve the effectiveness of pollutant controls implemented under this Order.

B. Purpose

The results of the monitoring requirements outlined below shall be used to refine control measures for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters in Los Angeles County.

C. Provision for Integrated Approach

The Monitoring Program provides flexibility to allow Permittees to develop an integrated monitoring program to address all of the monitoring requirements of this Order and other monitoring obligations or requirements in a cost efficient and effective manner.

D. Provision for a Coordinated Integrated Approach

The Monitoring Program provides flexibility to allow Permittees to coordinate monitoring efforts on a watershed or subwatershed basis to leverage monitoring resources in an effort to increase cost-efficiency and effectiveness and to closely align monitoring with TMDL monitoring requirements and Watershed Management Programs.

E. Monitoring Program Elements

The Monitoring Program shall include the following elements:

- 1. Receiving water monitoring shall be performed at previously designated mass emission stations and/or at TMDL receiving water compliance points, as designated in Regional Water Board Executive Officer approved TMDL Coordinated Monitoring Plans (CMPs) (see Table E-1 for a list of approved TMDL CMPs). The objectives of the receiving water monitoring include the following:
 - a. Determine whether the receiving water limitations are being achieved,
 - **b.** Assess trends in pollutant concentrations over time, or during specified conditions,
 - **c.** Determine whether the designated beneficial uses are fully supported as determined by water chemistry, as well as aquatic toxicity and bioassessment monitoring.
- 2. Storm water outfall based monitoring; including TMDL monitoring requirements specified in approved TMDL CMPs (see Table E-1). The objectives of the storm water outfall based monitoring program include the following:
 - **a.** Determine the quality of a Permittee's discharge relative to municipal action levels, as described in Attachment G of this Order,
 - **b.** Determine whether a Permittee's discharge is in compliance with applicable wet weather WQBELs derived from TMDL WLAs,
 - **c.** Determine whether a Permittee's discharge causes or contributes to an exceedance of receiving water limitations.
- **3. Non-storm water outfall based monitoring**; including TMDL monitoring requirements specified in approved TMDL CMPs (see Table E-1). The objectives of the non-storm water outfall based monitoring program include the following:
 - **a.** Determine whether a Permittee's discharge is in compliance with applicable dry weather WQBELs derived from TMDL WLAs,
 - **b.** Determine whether a Permittee's discharge exceeds non-storm water action levels, as described in Attachment G of this Order,
 - **c.** Determine whether a Permittee's discharge contributes to or causes an exceedance of receiving water limitations,
 - **d.** Assist a Permittee in identifying illicit discharges as described in Part VI.D.9 of this Order.
- **4. New Development/Re-development effectiveness monitoring**. The objectives of best management practices (BMP) effectiveness monitoring is to determine whether the volume of storm water associated with the design

storm is retained on-site as required by Part VI.D.6.c.i. of this Order, and as conditioned in the building permit issued by the Permittee.

5. Regional studies are required to further characterize the impact of the MS4 discharges on the beneficial uses of the receiving waters. Regional studies shall include the Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program (bioassessment), sediment monitoring for Pyrethroid pesticides, and special studies as specified in approved TMDLs (see Section XIX TMDL Reporting, below).

III. GENERAL MONITORING AND REPORTING REQUIREMENTS

- **A.** Monitoring shall be conducted in accordance with the requirements specified in Attachment D to this Order (Part III, Standard Provisions Monitoring).
- **B.** Records of monitoring information shall include information required under Attachment D to this Order (Part IV, Standard Provisions Records).
- **C.** All applications, reports, plans, or other information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Attachment D to this Order (Part V.B, Standard Provisions Reporting, Signatory and Certification Requirements).
- **D.** Monitoring results shall be reported in accordance with the requirements specified in Attachment D to this Order (Part V.C, Standard Provisions Reporting, Monitoring Reports).
- **E.** All monitoring and reporting shall be conducted in accordance with the Standard Monitoring Provisions specified in Part XIV of this MRP.

F. Sampling Methods

- Sampling methods shall be fully described in each Permittee's Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) and according to the provisions of the Standard Provisions for Monitoring described in Attachment D to this Order and Part XIV of this MRP.
- 2. Grab samples shall be taken only for pathogen indicator bacteria, oil and grease, cyanides, and volatile organics.
- **3.** Sampling and monitoring methods for trash shall be conducted in accordance with the applicable requirements specified in Part VI.E.5 of this Order.
- **4.** At a minimum, a sufficient volume of sample must be collected to perform all of the required biological and chemical tests.
- **5.** Flow may be estimated using USEPA methods at receiving water monitoring stations where flow measurements are not in place.

G. Analytical Procedures

- **1.** Suspended-Sediment Concentration (SSC) shall by analyzed per American Society for Testing and Materials (ASTM) Standard Test Method D-3977-97.
- **2.** Monitoring methods for trash shall be conducted in accordance with the applicable requirements specified in Part VI.E.5 of this Order.
- 3. Aquatic toxicity shall be monitored in accordance with Part XI of this MRP.
- **4.** All other parameters shall be analyzed according to the provisions of the Standard Provisions for Monitoring described in Attachment D to this Order and Part XIV of this MRP.

H. Reporting

- 1. Monitoring results submitted to the Regional Water Board shall include:
 - **a.** Rain totals and hydrographs for monitoring events in both narrative and graphic formats.
 - **b.** A narrative description of the date and duration of the storm event(s) sampled, rainfall estimates of the storm event that generated the sampled discharge and the duration between the storm event sampled and the end of the previous measurable storm event.
- **2.** Reporting requirements related to the monitoring of trash shall be conducted in accordance with Part VI.E.5.c of this Order.
- **3.** Monitoring results submitted to the Regional Water Board shall be consistent with the requirements identified in Part XVII.A.5 and Part XVII.A.7 of this MRP.

IV. INTEGRATED MONITORING PROGRAMS

A. Integrated Monitoring Program (IMP)

- **1.** Each Permittee may develop an Integrated Monitoring Program designed to satisfy the monitoring requirements of this Order.
- 2. The monitoring requirements contained in TMDL CMPs approved by the Executive Officer of the Regional Water Board are incorporated by reference into this MRP (See Table E-1 for a list of approved TMDL CMPs).
- **3.** The Integrated Monitoring Program may leverage monitoring resources by selecting monitoring locations, parameters, or monitoring techniques that will satisfy multiple monitoring requirements.
- 4. Where appropriate (e.g., dry-weather outfall based screening program), the Integrated Monitoring Program may develop and utilize screening level

monitoring strategies to avoid more costly analytical procedures if approved by the Regional Water Board Executive Officer.

- 5. The requirements of an approved TMDL CMP may be modified by an IMP that is subsequently approved by the Executive Officer of the Regional Water Board.
- 6. At a minimum, the IMP must address all TMDL and Non-TMDL monitoring requirements of this Order, including receiving water monitoring, storm water outfall based monitoring, non-storm water outfall based monitoring, and regional water monitoring studies, except as provided in Parts IV.B.2 and 3 of this MRP.

B. Coordinated Integrated Monitoring Program (CIMP)

1. Benefits of the CIMP Approach

- **a.** The CIMP provides Permittees opportunities to increase the cost efficiency and effectiveness of the monitoring program. The greatest efficiency may be achieved when a CIMP is designed and implemented on a watershed basis.
- **b.** A CIMP may be employed to implement regional studies, where a single Permittee takes the lead in directing the study, and the other Permittees provide funding or in lieu services.
- 2. Permittees are encouraged to coordinate their monitoring programs with other Permittees to develop and implement a CIMP. A CIMP may be developed to address one or more of the required monitoring elements (i.e., receiving water monitoring, outfall based monitoring, regional monitoring or special studies) and may be county-wide or limited to a single watershed, sub-watershed or defined jurisdictional boundary.
- **3.** The requirements of an approved TMDL CMP may be modified by an IMP or CIMP that is subsequently approved by the Executive Officer of the Regional Water Board.
- **4.** A Permittee shall not be required to submit an IMP if all of the applicable monitoring requirements in this Order are addressed in a CIMP, to which the Permittee is a participant.
- **5.** If the CIMP addresses some but not all of the applicable monitoring requirements required under this Order, then each Permittee shall submit an IMP that references the CIMP. The Permittees must describe how together, the IMP and CIMP, fulfill all of the applicable monitoring requirements contained in this Order.

C. Schedule for Submitting the Monitoring Plan to the Regional Water Board and Conducting Outfall Screening

1. Within six (6) months after the effective date of this Order, each Permittee shall submit a letter of intent to the Executive Officer of the Regional Water

Board describing whether it intends to follow an IMP or CIMP approach for each of the required monitoring plan elements.

- 2. Each Permittee shall submit an IMP plan addressing monitoring requirements that the Permittee intends to implement individually to the Executive Officer of the Regional Water Board within nine (9) months after the effective date of this Order.
- **3.** The participating Permittees shall submit a CIMP plan and a letter of intent, signed by each of the participating Permittees, to the Executive Officer of the Regional Water Board within 12 months after the effective date of this Order.
- 4. If upon finalization of the CIMP plan, a Permittee that has developed an IMP determines that its IMP plan must be revised to include monitoring requirements not covered under the final CIMP, the revised IMP plan shall be submitted to the Executive Officer of the Regional Water Board within 60 days after approval of the CIMP plan by the Executive Officer of the Regional Water Board.
- 5. Monitoring shall commence within 30 days after approval of the IMP or CIMP plan by the Executive Officer of the Regional Water Board.
- 6. If a Permittee elects not to develop or participate in an IMP or CIMP, monitoring shall be conducted on a jurisdictional basis per the requirements contained in Parts V through XIII and XIX of this MRP, beginning six (6) months after the effective date of this Order.
- 7. Monitoring requirements pursuant to Order No. 01-182 shall remain in effect until the Executive Officer of the Regional Water Board approves a Permittee(s) IMP and/or CIMP plan(s).

V. TMDL MONITORING PLANS

Table E-1. Approved TMDL Monitoring Plans by Watershed Management Area

Approved TMDL Monitoring Plans by Watershed Management Area			
TMDL	Comment	Date of Final Plan	Regional Water Board Approval Date
Santa Clara River Watershed Management Area			
Santa Clara River Nitrogen Compounds TMDL	Monitoring Plan was due March 23, 2005.		
Upper Santa Clara River Chloride TMDL	Monitoring Plan was not required.	N/A	N/A



Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only) Santa Clara River Estuary	The County of Los Angeles Trash TMDL Monitoring and Reporting Plan for Lake Elizabeth, Munz Lake, and Lake Hughes	June 25, 2009	March 25, 2009		
and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL	Monitoring Plan is due on March 21, 2013.				
Sa	anta Monica Bay Watershe	d Management Area			
Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry)	Santa Monica Bay Beaches Bacterial TMDLs Coordinated Shoreline Monitoring Plan	April 7, 2004	January 8, 2004		
Santa Monica Bay Nearshore and Offshore Debris TMDL	Monitoring Plan is due on September 20, 2012.				
Santa Monica Bay TMDL for DDTs and PCBs	USEPA Established TMDL	N/A	N/A		
	Malibu Creek Subwatershed				
Malibu Creek and Lagoon Bacteria TMDL	Malibu Creek and Lagoon Bacteria TMDL Compliance Monitoring Plan	February 25, 2008	April 8, 2008		
Malibu Creek Watershed Trash TMDL	Malibu Creek Watershed Trash Monitoring and Reporting Plan (TMRP)	April 28, 2010	Has not been approved.		
Malibu Creek Watershed Nutrients TMDL	USEPA Established TMDL	N/A	N/A		
Ballona Creek Subwatershed					
Ballona Creek Trash TMDL	Monitoring Plan was not required.	N/A	N/A		
Ballona Creek Estuary Toxic Pollutants TMDL	Ballona Creek Metals TMDL and Ballona Creek Estuary Toxic Pollutants TMDL Coordinated Monitoring Plan	May 4, 2009	June 25, 2009		



	Ballona Creek, Ballona			
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL	Estuary, & Sepulveda Channel Bacteria TMDL Coordinated Monitoring Plan	January 29, 2009	December 16, 2008	
Ballona Creek Metals TMDL	Ballona Creek Metals TMDL and Ballona Creek Estuary Toxic Pollutants TMDL Coordinated Monitoring Plan	May 4, 2009	June 25, 2009	
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation	USEPA Established TMDL	N/A	N/A	
	Marina del Rey Sub	watershed		
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	Marina Del Rey Harbor Mothers' Beach and Back Basins Bacterial TMDL Coordinated Monitoring Plan	June 25, 2007	February 1, 2007	
Marina del Rey Harbor Toxic Pollutants TMDL	Marina Del Rey Harbor Toxic Pollutants Total Maximum Daily Load Coordinated Monitoring Plan	March 31, 2008	March 3, 2009	
Dominguez Chan	Dominguez Channel and Greater Harbors Waters Watershed Management Area			
Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)	Monitoring Plan was not required.	N/A	N/A	
Machado Lake Trash	Trash Monitoring & Reporting Plan: Machado Lake Trash TMDL	September 5, 2008	December 9, 2008	
TMDL	City of Rolling Hills Trash Monitoring and Reporting Plan Machado Lake Trash TMDL	September 5, 2008	December 9, 2008	



	Palos Verdes Peninsula Coordinated Monitoring Plan In Compliance with the Machado Lake Nutrient Total Maximum Daily Load	February 1, 2011	December 14, 2010
	Machado Lake Nutrients TMDL Lake Water Quality Management Plan for City of Los Angeles	August 18, 2010	February 14, 2011
Machado Lake Nutrient TMDL	Machado Lake Nutrient TMDL Monitoring and Reporting Program Plan for the City of Carson	March 27, 2012	March 7, 2012
	Machado Lake Multipollutant TMDL Monitoring and Reporting Program for the Unincorporated Areas of Los Angeles County within the Machado Lake Watershed	September 12, 2011	April 25, 2012
	Monitoring Plans were due from the City of Lomita on April 25, 2011, City of Redondo Beach on March 11, 2010, and City of Torrance on May 16, 2012.		
Machado Lake Pesticides and PCBs TMDL	Monitoring Plan is due on September 20, 2012.		
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	Monitoring Plan is due on November 23, 2013.		
Los Angeles River Watershed Management Area			
Los Angeles River Watershed Trash TMDL	Monitoring Plan was not required.	N/A	N/A



Los Angeles River Nitrogen Compounds and Related Effects TMDL	Monitoring Plan was due on March 23, 2005.			
Los Angeles River and Tributaries Metals TMDL	Los Angeles River Metals TMDL Coordinated Monitoring Plan	March 25, 2008	April 11, 2008	
Los Angeles River Watershed Bacteria TMDL	Monitoring Plan is due on March 23, 2013.			
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	USEPA Established TMDL	N/A	N/A	
Los Angeles Area Lakes TMDLs (Lake Calabasas, Echo Park Lake and Peck Road Park Lake)	USEPA Established TMDL	N/A	N/A	
S	an Gabriel River Watershee	d Management Area		
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	USEPA Established TMDL	N/A	N/A	
Legg Lake Trash TMDL	Legg Lake Trash Monitoring & Reporting Plan: Legg Lake Trash TMDL	September 5, 2008	March 25, 2009	
Los Angeles Area Lakes TMDLs (Legg Lake and Puddingstone Reservoir)	USEPA Established TMDL	N/A	N/A	
Los Cerritos Channel and Alamitos Bay Watershed Management Area				
Los Cerritos Channel Metals TMDL	USEPA Established TMDL	N/A	N/A	
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	Colorado Lagoon TMDL Monitoring Plan (CLTMP)	January 28, 2012	Has not been approved.	
Middle Santa Ana River Watershed Management Area				



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Middle Santa Ana River Watershed Bacteria Indicator TMDL Monitoring Plan was due on November 16, 2007.		
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VI. RECEIVING WATER MONITORING

A. IMP Receiving Water Monitoring Requirements

- **1.** The IMP plan must contain the following information for receiving water monitoring:
 - **a.** Declaration of whether receiving water monitoring is conducted under an IMP, CIMP or both.
 - **b.** If receiving water monitoring is performed under the IMP, the plan must contain the following information:
 - **i.** A map (preferably GIS) identifying the proposed receiving water monitoring stations for both dry weather and wet weather monitoring.
 - **ii.** An explanation of how and why monitoring at the proposed locations will provide representative measurement of the effects of the Permittee's MS4 discharges on the receiving water.
 - **iii.** Identification of applicable TMDLs and TMDL compliance points, based on approved TMDL CMPs and/or as identified in the Basin Plan for the applicable TMDLs.
 - **iv.** A description of how the Permittee is fulfilling its obligations for TMDL receiving water monitoring under this IMP, CIMP or other monitoring plans.
 - **v.** A description of how the Permittee is contributing to the monitoring of mass emission stations or a discussion of why monitoring at mass emission stations is not being supported.

B. CIMP Receiving Water Monitoring Requirements

- **1.** The CIMP plan must contain the following information for receiving water monitoring:
 - **a.** A list of the participating Permittees.
 - **b.** A map (preferably GIS) delineating the geographic boundaries of the monitoring plan including the receiving waters, the MS4 catchment drainages and outfalls, subwatershed boundaries (i.e., HUC 12), political boundaries, land use, and the proposed receiving water monitoring stations for both dry weather and wet weather receiving water monitoring.
 - **c.** An explanation of how and why monitoring at the proposed locations will provide representative measurement of the effects of the MS4 discharges on the receiving water.

- 2. TMDLs
 - **a.** A list of applicable TMDLs and TMDL compliance points, based on approved TMDL CMPs and/or as identified in the Basin Plan for the applicable TMDLs.
 - **b.** Identification of the proposed receiving water monitoring stations that fulfill the TMDL CMP requirements.
- 3. Mass Emission Stations
 - a. Location of mass emission stations,
 - **b.** Description of monitoring at mass emission stations or justification of why monitoring at the mass emission stations will be discontinued.

C. Minimum Wet Weather Receiving Water Monitoring Requirements

- **1.** The IMP and/or CIMP shall incorporate the following minimum requirements for monitoring the receiving water during wet weather conditions:
 - **a.** The receiving water shall be monitored a minimum of three times per year for all parameters except aquatic toxicity, which must be monitored at least twice per year, or more frequently if required by applicable TMDL CMPs.
 - **b.** Monitoring shall be performed in the receiving water during wet weather conditions, defined for the purposes of this monitoring program as follows:
 - i. When the receiving water is the Santa Monica Bay or other ocean or estuary water body, wet weather occurs during a storm event of greater than or equal to 0.1 inch of precipitation, as measured from at least 50 percent of the Los Angeles County controlled rain gauges within the watershed.
 - **ii.** When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or as defined by effective TMDLs within the watershed.
 - **iii.** Monitoring shall occur during wet weather conditions, including targeting the first significant rain event of the storm year following the criteria below, and at least two additional wet weather events within the same wet weather season. Permittees shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time. Permittees shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).

- **c.** Receiving water monitoring shall begin within 6 hours after storm water outfall-based monitoring, unless Permittees can demonstrate that a longer time period is reflective of the rain event.
- **d.** At a minimum, the following parameters shall be monitored unless a surrogate pollutant has been approved by the Executive Officer of the Regional Water Board.
 - i. Flow
 - **ii.** Pollutants assigned a receiving water limitation derived from TMDL WLAs (See Attachments L-R of this Order),
 - iii. Other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters,
 - **iv.** Total Suspended Solids (TSS) and Suspended-Sediment Concentration (SSC) if the receiving water is listed on the CWA section 303(d) list for sedimentation, siltation or turbidity,¹
 - v. Field measurements applicable to inland freshwater bodies only: hardness, pH, dissolved oxygen, temperature, and specific conductivity,
 - vi. Aquatic Toxicity (twice per year).

D. Minimum Dry Weather Receiving Water Monitoring

- 1. The IMP and/or CIMP plan shall incorporate the following minimum requirements for monitoring the receiving water during dry weather conditions:
 - **a.** The receiving water shall be monitored a minimum of two times per year for all parameters, or more frequently if required by applicable TMDL CMPs. One of the monitoring events shall be during the month with the historically lowest instream flows.
 - **b.** Monitoring shall be performed in the receiving water during dry weather conditions, defined as follows:
 - i. When the receiving water is the Santa Monica Bay or other ocean or estuary water body, dry weather occurs on days with less than 0.1 inch of rain and those days not less than three days after a rain event of 0.1 inch or greater within the watershed, as measured from at least 50 percent of Los Angeles County controlled rain gauges within the watershed.
 - **ii.** When the receiving water body is a river, stream or creek, dry weather shall be defined as when the flow is less than 20 percent greater than the base flow or as defined by effective TMDLs within the watershed.

¹ Gray, John, R., G. Douglas Glysson, Lisa M. Turcios, and Gregory E. Schwarz. 2000. *Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data*. United States Geological Survey. Water Resources Investigations Report 00-4191. August 2000.

- **c.** At a minimum the following parameters shall be monitored during dry weather conditions, unless a surrogate pollutant has been approved by the Executive Officer of the Regional Water Board:
 - i. Flow
 - **ii.** Pollutants assigned receiving water limitations derived from TMDL dry weather WLAs,
 - iii. Other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters,
 - iv. Pollutants assigned non-storm water action levels in Attachment G,
 - v. TSS and hardness, when metals are monitored,
 - vi. Field measurements for monitoring of inland freshwater bodies: dissolved oxygen, pH, temperature, and specific conductivity,
 - vii. Aquatic Toxicity (twice per year, once during the month with the historically lowest flows).

VII. OUTFALL BASED MONITORING

- **A. MS4 Map and Outfall Database.** The IMP and/or CIMP plan(s) shall include a map of the MS4 to include the following information:
 - 1. Surface water bodies within the Permittee(s) jurisdiction
 - 2. Sub-watershed (HUC 12) boundaries
 - 3. Land use overlay
 - 4. Effective Impervious Area (EIA) overlay (if available)
 - 5. Jurisdictional boundaries
 - 6. The location and length of all open channel and underground pipes 18 inches in diameter or greater
 - 7. The location of all dry weather diversions
 - 8. The location of all major MS4 outfalls within the Permittee's jurisdictional boundary. Each major outfall shall be assigned an alphanumeric identifier, which must be noted on the map
 - **9.** Notation of outfalls with significant non-storm water discharges (to be updated annually)
 - **10.** Storm drain outfall catchment areas for each major outfall within the Permittee(s) jurisdiction
 - **11.**Each mapped MS4 outfall shall be linked to a database containing descriptive and monitoring data associated with the outfall. The data shall include:
 - a. Ownership
 - **b.** Coordinates

- **c.** Physical description
- **d.** Photographs of the outfall shall be taken to provide baseline information to track operation and maintenance needs over time
- e. Determination of whether the outfall conveys significant non-storm water discharges
- f. Storm water and non-storm water monitoring data

VIII.STORM WATER OUTFALL BASED MONITORING

A. Storm Water Outfall Based Monitoring

- 1. Storm water discharges from the MS4 shall be monitored at outfalls, manholes or in channels at the Permittee's jurisdictional boundary.
- **2.** The Permittee shall consider the following criteria when selecting outfalls for storm water discharge monitoring:
 - **a.** The storm water outfall based monitoring program shall include monitoring from at least one major outfall per subwatershed (HUC 12) drainage area, within the Permittee's jurisdiction.
 - **b.** The drainages to the selected outfalls shall be representative of the land uses within the Permittee's jurisdiction.
 - **c.** If a Permittee is implementing an IMP, to the extent possible, the selected outfalls shall not receive drainage from another jurisdiction. If this is not possible, and a Permittee is pursuing an individual outfall based IMP program, the Permittee shall conduct "upstream and "downstream" monitoring as the system enters and exits the Permittee's jurisdiction.
 - **d.** The Permittee shall select outfalls with configurations that facilitate accurate flow measurement and in consideration of safety of monitoring personnel.
 - e. The specific location of sample collection may be within the MS4 upstream of the actual outfall to the receiving water if field safety or accurate flow measurement require it.

B. Minimum Storm Water Outfall Based Monitoring Requirements

- **1.** The IMP and/or CIMP shall incorporate the following minimum requirements for monitoring storm water:
 - **a.** Storm water discharges shall be monitored a minimum of three times per year for all parameters except aquatic toxicity, which shall be monitored once per year (unless a proximate downstream receiving water monitoring location has not exhibited aquatic toxicity during the past two years).
 - **b.** Monitoring shall be performed at the selected outfalls during wet weather conditions, defined for the purposes of this monitoring program as follows:

- i. When the receiving water is the Santa Monica Bay or other ocean or estuary water body, wet weather occurs during a storm event equal to or greater than 0.1 inch of precipitation, as determined by the closest Los Angeles County rain gauge to the catchment area draining to the outfall.
- **ii.** When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or as defined by effective TMDLs within the watershed.
- iii. Monitoring of storm water discharges shall occur during wet weather conditions resulting from the first rain event of the year, and at least two additional wet weather events within the same wet weather season. Permittees shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time. Permittees shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).
- **iv.** Storm water outfall based monitoring shall commence within 6 hours prior to downstream receiving water monitoring, unless Permittees can demonstrate that a longer time period is reflective of the rain event.
- **c.** At a minimum, the following parameters shall be monitored unless a surrogate pollutant has been approved by the Executive Officer of the Regional Water Board:
 - i. Flow
 - **ii.** Pollutants assigned a WQBEL derived from TMDL WLAs (See Attachments L-R of this Order),
 - **iii.** Other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters,
 - **iv.** Total Suspended Solids (TSS) and Suspended-Sediment Concentration (SSC) if the receiving water is listed on the CWA Section 303(d) list for sedimentation, siltation or turbidity,
 - Field measurements applicable to inland freshwater bodies only: hardness, pH, dissolved oxygen, temperature, and specific conductivity,
 - **vi.** Aquatic Toxicity (if aquatic toxicity has been observed downstream of the outfall in the past two years).

C. Sampling Methods

1. Samples shall be collected during the first 24 hours of the storm water discharge or for the entire storm water discharge if it is less than 24 hours.

2. If a Permittee is not participating in a IMP or CIMP, the flow-weighted composite sample for a storm water discharge shall be taken with a continuous sampler, or it shall be taken as a combination of a minimum of 3 sample aliquots, taken in each hour of discharge for the first 24 hours of the discharge or for the entire discharge if the storm event is less than 24 hours, with each aliquot being separated by a minimum of 15 minutes within each hour of discharge, unless the Regional Water Board Executive Officer approves an alternate protocol.

IX. NON-STORM WATER OUTFALL BASED SCREENING AND MONITORING

A. Objectives of the Non-Storm Water Outfall Screening and Monitoring Program

The outfall screening and monitoring process is intended to meet the following objectives.

- 1. Develop criteria or other means to ensure that all outfalls with significant nonstorm water discharges are identified and assessed during the term of this Order.
- 2. For outfalls determined to have significant non-storm water flow, determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, or from unknown sources.
- **3.** Refer information related to identified IC/IDs to the IC/ID Elimination Program (Part VI.D.9 of this Order) for appropriate action.
- **4.** Based on existing screening or monitoring data or other institutional knowledge, assess the impact of non-storm water discharges (other than identified IC/IDs) on the receiving water.
- **5.** Prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules.
- 6. Conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
- **7.** Conduct monitoring or other investigations to identify the source of pollutants in non-storm water discharges.
- 8. Use results of the screening process to evaluate the conditionally exempt non-storm water discharges identified in Parts III.A.2 and III.A.3 of this Order and take appropriate actions pursuant to Part III.A.4.d of this Order for those discharges that have been found to be a source of pollutants. Any future reclassification shall occur per the conditions in Parts III.A.2 or III.A.6 of this Order.
- **9.** Maximize the use of Permittee resources by integrating the screening and monitoring process into existing or planned IMP and/or CIMP efforts.

A. Outfall Screening and Monitoring Plan

- 1. Concurrent with the development of an IMP or CIMP, or within six (6) months of the effective date of this Order, each Permittee shall submit a non-storm water outfall-based screening and monitoring program plan that documents with written procedures an explanation of how the program is to be implemented. The procedures must be updated as needed to reflect the Permittee's program. The plan may be a separate stand-alone document or may be part of an IMP or CIMP.
- 2. Each Permittee shall conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of this Order to determine whether changes or updates are needed. Where changes are needed, the Permittee shall make the changes in its written program documents, implement these changes in practice, and describe the changes within the next annual report.

B. Identification of Outfalls with Significant with Non-Storm Water Discharge

- 1. Based on the inventory of MS4 outfalls required under Part VII of this MRP, each Permittee shall identify MS4 outfalls with significant non-storm water discharges. Significant non-storm water discharges may be determined by one or more of the following characteristics:
 - a. Discharges from major outfalls subject to dry weather TMDLs.
 - **b.** Discharges for which existing monitoring data exceeds non-storm water Action Levels identified in Attachment G of this Order.
 - **c.** Non-storm water discharges that have caused or have the potential to cause overtopping of downstream diversions.
 - **d.** Discharges exceeding a proposed threshold discharge rate as determined by the Permittee.
 - **e.** Other characteristics as determined by the Permittee and incorporated within their screening program plan.

D. Inventory of MS4 Outfalls with Non-Storm Water Discharges

- 1. Each Permittee shall develop and maintain an inventory of MS4 outfalls and identify those with known significant non-storm water discharges and those requiring no further assessment. If the MS4 outfall requires no further assessment, the inventory must include the rationale for the determination of no further action required. This inventory shall be recorded in a database with outfall locations linked to the MS4 map required in Part VII.A of this MRP. GIS is preferred.
- 2. As a component of the inventory, each Permittee shall record existing data from past outfall screening and monitoring and initiate data collection efforts as warranted. The data shall include the physical attributes of those MS4

outfalls determined to have significant non-storm water discharges. Attributes to be obtained shall, at a minimum, include:

- **a.** Date and time of last visual observation or inspection
- b. Outfall alpha-numeric identifier
- **c.** Description of outfall structure including size (e.g., diameter and shape)
- **d.** Description of receiving water at the point of discharge (e.g., natural, softbottom with armored sides, trapezoidal, concrete channel)
- e. Latitude/longitude coordinates
- **f.** Nearest street address
- g. Parking, access, and safety considerations
- **h.** Photographs of outfall condition
- i. Photographs of significant non-storm water discharge (or indicators of discharge)
- j. Estimation of discharge rate
- **k.** All diversions either upstream or downstream of the outfall
- I. Observations regarding discharge characteristics such as turbidity, odor, color, presence of debris, floatables, or characteristics that could aid in source identification.
- **4.** Each year, the MS4 map and associated outfall database required in Part VII.A of the MRP shall be updated to incorporate the most recent characterization data for outfalls with significant non-storm water discharge.

E. Prioritized Source Identification

- **1.** Outfalls within the inventory shall be prioritized in the following order for source identification activities:
 - **a.** Outfalls discharging directly to receiving waters with WQBELs or receiving water limitations in the TMDL provisions for which final compliance deadlines have passed.
 - **b.** All major outfalls and other outfalls that discharge to a receiving water subject to a TMDL shall be prioritized according to TMDL compliance schedules.
 - **c.** Outfalls for which monitoring data exist and indicate recurring exceedances of one or more of the Action Levels identified in Attachment G of this Order.
 - **d.** All other major outfalls identified to have significant non-storm water discharges.
- 2. Each Permittee shall develop a source identification schedule based on the prioritized list of outfalls exhibiting significant non-storm water discharges. The schedule shall ensure that source investigations are conducted for no

less than 25% of the outfalls in the inventory within three years of the effective date of this Order and 100% of the outfalls within 5 years of the effective date of this Order.

3. Alternatively, a Permittee may request an alternative prioritization and schedule from the Regional Water Board if it can demonstrate an equivalent level of source investigation and abatement through an approved IMP or CIMP.

F. Identify Source(s) of Significant Non-Storm Water Discharge

- 1. If the source is determined to be an illicit discharge, each Permittee shall implement procedures to eliminate the discharge consistent with IC/ID requirements and document the actions in the next annual report.
- 2. If the source is determined to be an NPDES permitted discharge, a discharge subject to a Record of Decision approved by USEPA pursuant to section 121 of CERCLA, a conditionally exempt essential non-storm water discharge, or entirely comprised of natural flows as defined at Part III.A.d of this Order, document the source and report to the Regional Water Board within 30 days of determination and in the next annual report.
- **3.** If the source is either unknown or a conditionally exempt, but non-essential, non-storm water discharge, each Permittee shall conduct monitoring required in Part IX.G of this MRP.
- 4. If the discharge is comprised of more than one source, the Permittee shall attempt to quantify the relative contribution from the individual or group of similar sources (e.g., irrigation overspray) and classify the contributions as authorized, conditionally exempt essential, natural, illicit discharge, conditionally exempt non-essential, or unknown.
- 5. If the source of non-storm water discharge is unknown, the Permittee shall describe the efforts undertaken to identify the source. Methods for identifying the source of non-storm water discharge may include inspection and/or surveillance, discharge monitoring and data loggers, video or physical inspection, monitoring for indicator parameters (e.g., surfactants, chlorine, Pyrethroids), or other means.
- 6. If a source originates within an upstream jurisdiction, the Permittee shall inform in writing both the upstream jurisdiction and the Regional Water Board within 30 days of determination of the presence of the discharge, all available characterization data, contribution determination efforts, and efforts taken to identify its source.
- **7.** MS4 outfalls requiring no further action shall be maintained in the MS4 outfall map and associated database (see Part VII.A. of this MRP).

G. Monitor Non-Storm Water Discharges Exceeding Criteria

1. Within 90 days after completing the source identification or after the Executive Officer of the Regional Water Board approves the IMP or CIMP, whichever is later, each Permittee shall monitor outfalls that have been determined to

convey significant discharges comprised of either unknown or conditionally exempt non-storm water discharges, or continuing discharges attributed to illicit discharges. The following parameters shall be monitored:

- d. Flow,
- e. Pollutants assigned a WQBEL or receiving water limitation to implement TMDL Provisions for the respective receiving water, as identified in Attachments L R of this Order,
- f. Pollutants with non-storm water action levels as identified in Attachment G of this Order,
- **g.** Other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters,
- **h.** Aquatic Toxicity (required when the previous monitoring results from this outfall indicated toxicity, or results from a proximate downstream receiving water monitoring indicated aquatic toxicity during the last two years).
- For outfalls subject to a dry weather TMDL, monitoring frequency shall be per the approved CMP or as otherwise specified in the TMDL, or as specified in an IMP or CIMP approved by the Executive Officer of the Regional Water Board.
- **3.** For outfalls not subject to dry weather TMDLs, monitoring frequency shall be four times during the first year following source identification, distributed approximately quarterly, during dry weather conditions, except where required based on receiving water monitoring data, aquatic toxicity shall be monitored two times during the first year or as specified in an IMP or CIMP approved by the Executive Officer of the Regional Water Board.
- 4. Except as required by an applicable TMDL CMP, IMP, or CIMP approved by the Executive Officer of the Regional Water Board, monitoring frequency may be reduced to twice per year, beginning in the second year of monitoring, if pollutant concentrations measured during the first year do not exceed WQBELs, non-storm water Action Levels or water quality standards for other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters.
- 5. Unless required by a TMDL, aquatic toxicity monitoring of significant nonstorm water discharges shall only be required when results from a proximate downstream receiving water monitoring have indicated aquatic toxicity during the last two years. If initial monitoring results from an outfall indicate toxicity, aquatic toxicity shall be monitor a second time during the reporting year. Aquatic toxicity monitoring may be reduced to once per year, if monitoring conducted during the first year indicates that the discharge was not toxic. Aquatic toxicity monitoring shall be performed per the procedures described in Part XII of this MRP.
- 6. Following two years of monitoring, the Permittee may submit a written request to the Executive Officer of the Regional Water Board to reduce or eliminate

monitoring of specified pollutants, based on an evaluation of the monitoring data.

H. Sampling Methods

- 1. For the purposes of this monitoring program, non-storm water discharges shall be monitored during days when precipitation is < 0.1 inch and those days not less than 3 days after a rain day. A rain day is defined as those with >= 0.1 inch of rain.
- 2. Flow-weighted composite samples shall be taken for a non-storm water discharge using a continuous sampler, or it shall be taken as a combination of a minimum of 3 sample aliquots, taken in each hour during a 24-hour period, unless the Regional Water Board Executive Officer approves an alternate protocol.

X. NEW DEVELOPMENT/RE-DEVELOPMENT EFFECTIVENESS TRACKING

- A. Each Permittee shall maintain a database providing the following information for each new development/re-development subject to the requirements of Part VI.D.6 of this Order that is approved by the Permittee on or after the effective date of this Order:
 - 1. Name of the Project and Developer,
 - 2. Project location and map (preferably linked to the GIS storm drain map),
 - 3. Date of Certificate of Occupancy,
 - 4. 85th percentile storm event for the project design (inches per 24 hours),
 - **5.** 95th percentile storm event for projects draining to natural water bodies(inches per 24 hours),
 - 6. Other design criteria required to meet hydromodification requirements for drainages to natural water bodies,
 - 7. Project design storm (inches per 24-hours),
 - 8. Project design storm volume (gallons or MGD),
 - 9. Percent of design storm volume to be retained on site,
 - **10.** Design volume for water quality mitigation treatment BMPs, if any.
 - **11.** If flow through, water quality treatment BMPs are approved, provide the oneyear, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist,
 - **12.** Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site,
 - **13.**Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project,

14. Location and maps (preferably linked to the GIS storm drain map required in Part VII.A of this MRP) of off-site mitigation, groundwater replenishment, or retrofit sites.

XI. REGIONAL STUDIES

A. Pyrethroid Insecticides Study Requirements

- 1. Each Permittee shall perform a Pyrethroid Insecticides study to accomplish the following objectives:
 - a. Establish baseline data for major watersheds
 - **b.** Evaluate whether Pyrethroid Insecticide concentrations are at or approaching levels known to be toxic to sediment-dwelling aquatic organisms.
 - i. Determine if Pyrethroids discovered are from urban sources.
 - ii. Assess any trends over the permit term.
- **2.** Each Permittee shall incorporate monitoring for Pyrethroid Insecticides according to the following:
 - **a.** No later than the second year after the effective date of this Order, monitoring shall begin.
 - **b.** Quality Assurance Project Plan (QAPP) to be submitted to the Regional Water Board Executive Officer for approval 12 months prior to beginning monitoring.
 - **c.** In selecting sites to conduct monitoring for Pyrethroid Insecticides, Permittees shall review existing monitoring programs in the watersheds by other public and private entities, watershed coalitions, and citizen volunteers, so as to complement and not duplicate efforts.
 - **d.** Establish at least two stations along the main stems of each major watershed river that are influenced by urban discharges.
- **3.** Each Permittee shall monitor Pyrethroid Insecticides stations according to the following:
 - **a.** Each Permittee shall monitor one sampling event per station per monitoring year.
 - **b.** Monitoring shall occur after sediment has settled within the waterbody, and safe access can be assured.
 - **c.** Sufficient sediment is to be collected at each station in a pre-cleaned glass jar by skimming the upper 1 cm of the sediment column with a steel scoop, and held on ice until returned to the laboratory.
 - **d.** Sediment shall be homogenized in the laboratory by hand mixing, then held at 4 °C (toxicity samples) or -20 °C (chemistry samples).
 - e. All samples taken shall be analyzed for the following Pyrethroids:

- (1) biefenthrin
- (2) cyfluthrin
- (3) cypermethrin
- (4) deltamethrin
- (5) esfenvalerate
- (6) lambda-cyhalothrin
- (7) permethrin
- (8) tralomethrin (if laboratory is capable of analyzing for it)
- **f.** Detection limits for all Pyrethroids shall be as close to 1ng/g (dry weight) as reasonably achievable.
- g. Each sediment sample is to measure the following:
 - i. Total organic carbon (TOC).
 - **ii.** All samples shall be tested for toxicity to 7 to 10 day old *Hyalella azteca* according to standard USEPA testing methods.²
 - **iii.** Use of the approach described in *Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides*³ for toxicity testing shall be used.
- **h.** Analysis by a laboratory that has performed sediment toxicity testing for Pyrethroid Insecticides is preferred.
- i. Monitoring results from each station shall be sent electronically to the Regional Water Board's Storm Water Site at MS4stormwaterRB4@waterboards.ca.gov, no later than 90 days from sample collection date. The sample data transmitted shall be in the most recent update of the Southern California Municipal Storm Water Monitoring Coalition's (SMC) Standardized Data Transfer Formats (SDTFs).
- **j.** If toxicity is attributed to Pyrethroids, then consultation with USEPA, the California Department of Pesticide Regulations, and the California Stormwater Quality Association's (CASQA) pesticides committee (UP3 Project web site), shall be required to obtain relevant information to use in developing the recommendations to mitigate Pyrethroids in the Final Study Report.
- **k.** Final Report for the Pyrethroid Insecticides study shall contain the following:

² U.S. EPA. Methods for Measuring the Toxicity and Bioaccumulation of Sediment-Associated Contaminants with Freshwater Invertebrates; EPA Publication 600/R-99/064; U.S. Environmental Protection Agency: Washington, DC, 2000; 192 pp.

³ Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides; Weston, D.P.; Holmes, R.W.; You, J.; Lydy, M.J. Environ. Sci. Technol.; (Article); 2005; 39(24); 9780 pp.

- i. Executive summary
- ii. Methods
- **iii.** Results (including map depicting monitoring stations)
- iv. Discussion
- v. Recommendations to mitigate Pyrethroids.
- I. The Final Report shall be completed and submitted to the Executive Officer of the Regional Water Board no later than 8 months after completion of the study.
- **m.** The Pyrethroid Insecticides Study requirement may be satisfied by another tributary monitoring program within the Watershed performing a sediment Pyrethroid Insecticides Study that is monitoring to assess pyrethroid concentrations and sediment toxicity, so as to complement other ongoing programs.
- **n.** Permittees can elect to conduct the Pyrethroid Insecticides Study on a jurisdiction, watershed, or countywide scale. If Permittees elect to conduct the study at either a watershed or countywide scale, the study shall be incorporated into an IMP or CIMP and the Permittee shall notify the Regional Water Board Executive Officer of its intent consistent with the notification requirements contained in Section IV.C of this MRP (Integrated Monitoring Plans).

B. Southern California Stormwater Monitoring Coalition Watershed Monitoring Program

- The Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program was initiated in 2008. This program is conducted in collaboration with the Southern California Coastal Water Research Project (SCCWRP), State Water Board's Surface Water Ambient Monitoring Program, three Southern California Regional Water Quality Control Boards (Los Angeles, Santa Ana, and San Diego) and several county storm water agencies (Los Angeles, Ventura, Orange, Riverside and San Diego). SCCWRP acts as the facilitator to organize the program and completes data analysis and report preparation.
- 2. The SMC monitoring program seeks to coordinate and leverage existing monitoring efforts to produce regional estimates of condition, improve data comparability and quality assurance, and maximize data availability, while conserving monitoring expenditures. The primary goal of this program is to implement an ongoing, large-scale regional monitoring program for southern California's coastal streams and rivers. The monitoring program addresses three main questions:
 - a. What is the condition of streams in southern California?
 - b. What are the stressors that affect stream condition?; and
 - c. Are conditions getting better or worse?

- **3.** A comprehensive program was designed by the SMC, in which each participating group assesses its local watersheds and then contributes their portion to the overall regional assessment. The program utilizes the following benthic macroinvertebrate community bioassessment, benthic indicators: algal community bioassessment (soft algae and diatoms), riparian wetland evaluation (using California Rapid Assessment Methodology), water chemistrv (nutrients and certain pesticides), water toxicity (usina Ceriodaphnia), and physical habitat. Sampling occurs in 15 coastal southern California watersheds from Ventura to the US-Mexico border, and sites are sampled randomly across three land use types (open space, urban and agriculture). Six sites are sampled per year per watershed, resulting in monitoring of 90 sites per year and 450 sites overall over a five-year period (reaching the statistically desirable target of 30 data points per watershed).
- 4. To continue to implement the SMC design, each Permittee shall be responsible for supporting the monitoring described at the sites within the watershed management area(s) that overlap with the Permittee's jurisdictional area. These include six random sites annually in the Santa Monica Bay Watershed Management area and at three random sites annually in the Santa Clara River Watershed (the other three sites are funded by the Ventura County MS4 Permittees). Permittees shall continue to contribute monitoring resources to the San Gabriel River and Los Angeles River Regional Watershed Monitoring Programs (overall, both of these programs fund six sites per year to contribute to the SMC Program).

XII. AQUATIC TOXICITY MONITORING METHODS

- A. Aquatic Toxicity Monitoring as required in Parts VI (Receiving Water Monitoring), VIII (Storm Water Outfall Based Monitoring), and IX (Non-storm Water Outfall Based Monitoring) of this MRP, shall be conducted according to the procedures described in this Part.
- B. The Permittees shall collect and analyze samples taken from receiving water monitoring locations and outfall discharges, as soon as possible after sample collection, to evaluate the extent and causes of toxicity in receiving waters. Toxicity samples are to be flow-weighted composites (considering holding times, below) and can be collected manually or automatically.

- C. The volume of sample shall be determined by specific test methods to be used. At a minimum it is suggested to collect 5 gallons for baseline testing, and for Toxicity Identification Evaluation (TIE) studies. Sufficient sample volume shall be collected to perform the required toxicity tests. The same refrigerated sample showing toxicity shall be used for the TIE, even though the holding time may exceed 72 hours.
- D. Holding Times. All toxicity tests shall be conducted as soon as possible following sample collection. A 36-hour sample holding time for test initiation shall be targeted. Sample storage (holding time) time shall not exceed 72 hours (from collection through lab processing).
- **E.** If the State Water Board adopts the Policy for Toxicity Assessment and Control that outlines the use of the Test of Significant Toxicity (TST), modifying the current hypothesis test methods, the Regional Water Board Executive Officer will revise the Monitoring and Reporting Program, as applicable, to reflect these changes. These revisions would be made as soon as practicable following USEPA approval of the new state policy.

F. Acute Toxicity Monitoring Program

- 1. Test Methods. Acute Toxicity: Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) sample (receiving water or discharge effluent).
 - **a.** The average survival in the undiluted sample for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
 - **b.** No single test shall produce less than 70% survival.
- 2. Acute Toxicity Receiving Water/Effluent Monitoring Program.
 - a. Method. The Permittee(s) shall conduct acute toxicity tests (96-hour static renewal toxicity tests) on water samples, by methods specified in 40 CFR Part 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition to ensure compliance.
 - b. Test Species. The fathead minnow, *Pimephales promelas* (Acute Toxicity Test Method 2000.0), shall be used as the test species for fresh water and the topsmelt, *Atherinops affinis*, shall be used as the test species in brackish water. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Permittee(s) may have the option of using the inland silverside, *Menidia beryllina* (Acute Toxicity Test Method 2006.0), instead of the topsmelt. The method for topsmelt (Larval Survival and Growth Test Method 1006.0) is found in USEPA's Short-term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995 (EPA/600/R-95/136). The Pacific mysid shall be used as the

invertebrate test species for marine water, and the water flea (Ceriodaphnia dubia, Daphnia pulex or Daphnia magna) shall be used as the invertebrate test species in fresh water.

- **c.** Alternate Reporting. For the acute toxicity testing with topsmelt, the Permittee(s) may elect to report the results or endpoint from the first 96 hours of the chronic toxicity test as the results of the acute toxicity test, using USEPA's August 1995 method (EPA/600/R-95/136) to conduct the chronic toxicity test.
 - i. Toxicity Identification Evaluation. The Permittee(s) shall immediately begin a Toxicity Identification Evaluation (TIE) and implement the Initial Investigation Toxicity Reduction Evaluation (TRE) workplan if any of the results are less than 70% survival or the average survival in the undiluted sample for any three (3) consecutive 96-hour static or continuous flow bioassay tests is less than 90%.

G. Chronic Toxicity

- Definition of Chronic Toxicity. Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or receiving waters compared to that of the control organisms. Chronic toxicity shall be measured in TUc, where TUc = 100/NOEC. The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.
- 2. This Order includes a chronic toxicity trigger defined as an exceedance of 1.0 TUc in a critical life stage test of 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1 TUc in a critical life stage test.)
- **3.** Chronic Toxicity Effluent Monitoring Program.
 - a. Test Species and Methods:
 - i. The Permittee(s) shall conduct critical life stage chronic toxicity tests on 24-hour composite 100% effluent or receiving water grab samples.
 - **ii.** For freshwater discharge Permittee(s) shall conduct the chronic toxicity test in accordance with USEPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition, October 2002,* (EPA/821/R-02/013), or a more recent edition.
 - iii. For brackish effluent, the Permittee(s) shall conduct the chronic toxicity test in accordance with USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995, (EPA/600/R-95/136), or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and

Estuarine Organisms, Third Edition, October 2002, (EPA/821-R-02-014), or a more recent edition.

- **iv.** The Permittee(s) shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
- v. Re-screening is required every 24 months. The Permittee(s) shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive one, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive one or if there is ambiguity then the Permittee(s) shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.
- vi. In brackish waters, the presence of chronic toxicity may be estimated as specified using West Coast marine organisms according to USEPA's Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, August 1995 (EPA/600/R-95/136), or a more recent edition.
- **vii.** After the screening period, subsequent monitoring shall be conducted using the most sensitive species.
- viii. Outfall samples shall be collected before discharge to the receiving water.
- 4. Chronic Toxicity Identification Evaluation.
 - i. If the chronic toxicity of the effluent exceeds 1.0 TUc, the Permittee(s) shall immediately implement the Initial Investigation TRE workplan. The Permittee(s) shall ensure that they receive results of a failing chronic toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 5 business days of the receipt of the result.

H. Quality Assurance

- 1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
- 2. If either the reference toxicant test or receiving water or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Permittee(s) must re-sample and re-test at the earliest time possible.
- **3.** Control and dilution water should be receiving water (if non-toxic) or laboratory water, as appropriate, as described in the manual. If the dilution

water used is different from the water the test species are grown in (culture water), a second control using culture water shall be used.

I. Preparation of an Initial Investigation TRE Workplan

- The Permittee(s) shall prepare and submit a copy of the Permittee(s)'s initial investigation TRE workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this Order. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Permittee(s) shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Permittee(s) intends to follow if toxicity is detected, and should include, at a minimum:
 - **a.** A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and MCM and/or BMP efficiency.
 - **b.** A description of the Permittee(s) methods for minimizing the toxicity of storm water and non-storm water discharges.
 - **c.** If a TIE is necessary, the name or position title of who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

J. Steps in TRE and TIE Procedures

- 1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Permittee(s) shall expeditiously develop a more detailed TRE workplan for submittal to the Regional Water Board Executive Officer within 30 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:
 - a. Further actions to investigate and identify the cause of toxicity;
 - **b.** Actions the Permittee(s) will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
 - c. A schedule for these actions.
- **2.** The following section summarizes the stepwise approach used in conducting the TRE:
 - **a.** Step 1 includes basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
 - **b.** Step 2 evaluates optimization of the Permittee(s) Minimum Control Measures (MCMs) in reducing the toxicity of the storm water and non-storm water discharges to the MS4 system.
 - **c.** If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity;

- **d.** Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
- **e.** Step 5 evaluates options for reducing toxicity of storm water and/or nonstorm water discharges to the MS4 system; and,
- **f.** Step 6 consists of confirmation once a toxicity control method has been implemented.
- **3.** Many recommended TRE elements parallel source control, pollution prevention, and storm water control program minimum control measures and BMPs. To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the Permittee(s) TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity (six consecutive chronic toxicity test results are less than or equal to 1.0 TUc or six consecutive acute toxicity test results are greater than 90% survival).
- 4. The Permittee(s) shall initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Permittee(s) shall use the USEPA acute manual, chronic manual, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.
- 5. If a TRE/TIE is initiated prior to completion of the accelerated testing, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Regional Water Board Executive Officer.
- 6. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.
- 7. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based, in part, on the Permittee(s)'s actions and efforts to identify and control or reduce sources of consistent toxicity.

K. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Permittees must demonstrate the receiving water or effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.

- **a.** There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
- **b.** Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
- **c.** Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
- **d.** Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
- 2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

L. Reporting

- 1. The Permittee(s) shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this Order. Test results shall be reported as % survival for acute toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.
- 2. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
- **3.** The full report shall consist of:
 - a. The results;
 - **b.** The dates of sample collection and initiation of each toxicity test;
 - c. The acute toxicity average limit or chronic toxicity limit or trigger; and
 - **d.** The printout of the ToxCalc or Comprehensive Environmental Toxicity Information System (CETIS) program results.
- **4.** Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - **a.** Sample date(s);

- **b.** Test initiation date;
- **c.** Test species;
- **d.** End point values for each dilution (e.g., number of young, growth rate, percent survival);
- e. LC₅₀ value(s) in percent effluent;

f.
$$TU_a$$
 values $\left(TU_a = \frac{100}{LC_{50}}\right)$;

- g. IC_{15} , IC_{25} , IC_{40} and IC_{50} values in percent effluent;
- **h.** NOEC value(s) in percent effluent;

i.
$$TU_c$$
 values $\left(TU_c = \frac{100}{NOEC}\right)$;

- j. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
- **k.** No Observable Effect Concentration (NOEC) and Lowest Observable Effect Concentration (LOEC) values for reference toxicant test(s);
- I. IC₂₅ value for reference toxicant test(s);
- m. Any applicable charts; and
- **n.** Available water quality measurements for each test (e.g., pH, dissolved oxygen (D.O.), temperature, conductivity, hardness, salinity, ammonia).
- 5. Monitoring results submitted to the Regional Water Board shall be consistent with the requirements identified in Part XVIII.A.5 and Part XVIII.A.7 of this MRP.
- 6. The Permittee(s) shall notify this Regional Water Board of any toxicity exceedance of the limit or trigger by telephone or electronically within 24 hours of receipt of the results, followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Permittee(s) has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given

XIII. SPECIAL STUDIES

A. Each Permittee shall be responsible for conducting special studies required in an effective TMDL or an approved TMDL CMP applicable to a watershed that transects its political boundary.

XIV. STANDARD MONITORING AND REPORTING PROVISIONS

- **A.** All monitoring and reporting activities shall meet the following requirements.
 - 1. Monitoring and Records [40 CFR section 122.41(j)(1)]
 - **a.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. Monitoring and Records [40 CFR section 122.41(j)(2)] [California Water Code § 13383(a)]
 - i. Permittees shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge (ROWD) and application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board Executive Officer or USEPA at any time.
 - **c.** Monitoring and Records [40 CFR section 122.21(j)(3)]
 - i. Records of monitoring information shall include:
 - **1.** The date, time of sampling or measurements, exact place, weather conditions, and rain fall amount.
 - 2. The individual(s) who performed the sampling or measurements.
 - 3. The date(s) analyses were performed.
 - 4. The individual(s) who performed the analyses.
 - 5. The analytical techniques or methods used.
 - 6. The results of such analyses.
 - 7. The data sheets showing toxicity test results.
 - **d.** Monitoring and Records [40 CFR section 122.21(j) (4)]. All monitoring, sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR Part 136 for the analysis of pollutants, unless another test procedure is required under 40 CFR subchapter N or O or is otherwise specified in this Order for such pollutants. If a particular Minimum Level (ML) is not attainable in accordance with procedures set forth in 40 CFR Part 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure may be used instead.

- e. Monitoring and Records [40 CFR section 122.41(j)(5)]. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.
- **B.** All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory:
 - 1. Certified for such analyses by an appropriate governmental regulatory agency.
 - 2. Participated in "Intercalibration Studies" for storm water pollutant analysis conducted by the SMC.⁴
 - **3.** Which performs laboratory analyses consistent with the storm water monitoring guidelines as specified in, the *Stormwater Monitoring Coalition Laboratory Guidance Document,* 2nd Edition R. Gossettt and K. Schiff (2007), and its revisions.
- **C.** For priority toxic pollutants that are identified in the CTR (65 *Fed. Reg.* 31682), the MLs published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (SIP) shall be used for all analyses, unless otherwise specified.
- **D.** The Monitoring Report shall specify the analytical method used, the Method Detection Level (MDL) and the ML for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported with one of the following methods, as appropriate:
 - 1. An actual numerical value for sample results greater than or equal to the ML.
 - 2. "Not-detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.
 - **3.** "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported. This is the concentration that results from the confirmed detection of the substance by the analytical method below the ML value.
- **E.** For priority toxic pollutants, if the Permittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR Part 136, the

⁴ The 'Intercalibration Studies' are conducted periodically by the SMC to establish a consensus based approach for achieving minimal levels of comparability among different testing laboratories for storm water samples to minimize analytical procedure bias. Stormwater Monitoring Coalition Laboratory Document, Technical Report 420 (2004) and subsequent revisions and augmentations.



lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Permittee must submit documentation from the laboratory to the Regional Water Board Executive Officer for approval prior to raising the ML for any constituent.

F. Monitoring Reports [40 CFR 122.41(I)(4)(ii)].

1. If a Permittee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136, or another method specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the Annual Monitoring Reports.

G. Monitoring Reports [40 CFR 122.41(I)(4)(iii)]

- **1.** Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.
- **H.** If no flow occurred during the reporting period, then the Monitoring Report shall, so state.
- I. The Regional Water Board or its Executive Officer, consistent with 40 CFR section 122.41, may approve changes to the Monitoring and Reporting Program, after providing the opportunity for public comment, either:
 - 1. By request of a Permittee or by an interested person after submittal of the Monitoring Report. Such request shall be in writing and filed not later than 60 days after the Monitoring Report submittal date, or
 - 2. As deemed necessary by the Regional Water Board Executive Officer, following notice to the Permittees.
- J. Permittees must provide a copy of the Standard Operation Procedures (SOPs) for the Monitoring and Reporting Program No. CI XXX to the Regional Water Board upon request. The SOP will consist of five elements: Title page, Table of Contents, Procedures, Quality Assurance/ Quality Control (QA/ QC), and References. Briefly describe the purpose of the work or process, including any regulatory information or standards that are appropriate to the SOP process, and the scope to indicate what is covered. Denote what sequential procedures should be followed, divided into significant sections; e.g., possible interferences, equipment needed, equipment/instrument maintenance and calibration, personnel qualifications, and safety considerations. Describe QA/ QC activities, and list any cited or significant references.
- **K.** When monitoring cannot be performed to comply with the requirements of this Order due to circumstances beyond a Permittee's control, then within two working days, the following shall be submitted to the Regional Water Board Executive Officer:
 - **1.** Statement of situation.

- **2.** Explanation of circumstance(s) with documentation.
- **3.** Statement of corrective action for the future.
- L. Results of monitoring from each receiving water or outfall based monitoring station conducted in accordance with the Standard Operating Procedure submitted under Standard Provision 14 of this MRP shall be sent electronically to Regional Water Board's Water the Storm site at MS4stormwaterRB4@waterboards.ca.gov, no later than 90 days from sample collection date, highlighting exceedances of receiving water limitations to implement TMDL provisions and Basin Plan water guality objectives, including California Toxic Rule continuous maximum concentration (CMC) criteria for all test results, with corresponding sampling dates per receiving water monitoring station. The sample data transmitted shall be in the most recent update of the Southern California Municipal Storm Water Monitoring Coalition's (SMC) Standardized Data Transfer Formats (SDTFs).
- **M.** When monitoring data provides evidence that a storm water or non-storm water discharge has caused or contributed to an exceedance of a WQBEL, a non-storm water action level, or exhibits aquatic toxicity, the Permittee shall notify the Regional Water Board in writing within 30 days of the determination and no later than 60 days after receipt of the monitoring data.

XV. ANNUAL REPORT SUBMITTAL TIMELINES

A. Each Permittee or group of Permittees shall submit by December 15th of each year beginning in 2013, an Annual Report to the Regional Water Board Executive Officer in the form of a one hard copy and three compact disks (CD) (or equivalent electronic format).

XVI. ANNUAL REPORTING REQUIREMENT OBJECTIVES

- **B.** The annual reporting process is intended to meet the following objectives.
 - 1. Present summary information that allows the Regional Water Board to assess:
 - **a.** Each Permittee's participation in one or more Watershed Management Programs.
 - **b.** The impact of each Permittee(s) storm water and non-storm water discharges on the receiving water.
 - **c.** Each Permittee's compliance with receiving water limitations, numeric water quality-based effluent limitations, and non-storm water action levels.
 - **d.** The effectiveness of each Permittee(s) control measures in reducing discharges of pollutants from the MS4 to receiving waters.
 - e. Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Minimum Control Measures.

- **f.** Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.
- 2. Present detailed data and information in an accessible format to allow the Regional Water Board to verify conclusions presented in a Permittee's summary information.
- **3.** Provide the Permittee(s) a forum to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures.
- **4.** Present data and conclusions in a transparent manner so as to allow review and understanding by the general public.
- 5. Focus each Permittee's reporting efforts on watershed condition, water quality assessment, and an evaluation of the effectiveness of control measures.

XVII. WATERSHED SUMMARY INFORMATION, ORGANIZATION AND CONTENT

- A. Each Permittee shall include the information requested in A.1 through A.3 below in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information shall be provided for each watershed within the Permittee's jurisdiction. Alternatively, permittees participating in a Watershed Management Program may provide the requested information through the development and submission of a Watershed Management Program plan and any updates thereto.
 - 1. Watershed Management Area. Where a Permittee has individually or collaboratively developed a Watershed Management Program Plan (WMPP) as described in Part VI.C of this Order, reference to the Watershed Management Program plan and any revisions thereto may suffice for baseline information regarding the Watershed Management Area.
 - **a.** The following information shall be included for each Watershed Management Area within the Permittee(s) jurisdiction, where not included in a WMPP:
 - i. A description of effective TMDLs, applicable WQBELs and receiving water limitations, and implementation and reporting requirements, and compliance dates
 - ii. CWA section 303(d) listings of impaired waters not addressed by TMDLs
 - **iii.** Results of regional bioassessment monitoring
 - iv. Results of regional Pyrethroid studies, if any
 - **v.** A description of known hydromodifications to receiving waters and a description, including locations, of natural drainage systems
 - vi. Description of groundwater recharge areas including number and acres

- vii. Maps and/or aerial photographs identifying the location of ESAs, ASBS, natural drainage systems, and groundwater recharge areas
- 2. Subwatershed (HUC-12) Description. The following information shall be included for each Subwatershed (HUC-12) within the Permittee(s) jurisdiction. Where a Permittee has individually or collaboratively developed a WMPP as described in Part VI.C of this Order, reference to the WMPP and any revisions thereto may suffice for baseline information regarding the subwatershed (HUC-12) descriptions, where the required information is already included in the WMPP. The summary information describing the subwatershed shall include the following information:
 - **a.** Description including HUC-12 number, name and a list of all tributaries named in the Basin Plan
 - **b.** Land Use map of the HUC-12 subwatershed
 - **c.** 85th percentile, 24-hour rainfall isohyetal map for the subwatershed
 - d. One-year, one-hour storm intensity isohyetal map for the subwatershed
 - e. MS4 map for the subwatershed, including major MS4 outfalls and all lowflow diversions
- **3.** Description of the Permittee(s) Drainage Area within the Subwatershed. Where a Permittee has individually or collaboratively developed a WMPP as described in Part VI.C of this Order, reference to the WMPP and any revisions thereto may suffice for baseline information regarding the Permittee's Drainage Area within the subwatershed (HUC-12), where the required information is already included in the Watershed Management Program. The following information shall be included for each jurisdiction within the Subwatershed (HUC-12):
 - **a.** A subwatershed map depicting the Permittee(s) jurisdictional area and the MS4, including major outfalls (with identification numbers), and low flow diversions (with identifying names or numbers) located, within the Permittee's jurisdiction.
 - **b.** Provide the estimated baseline percent of effective impervious area (EIA) within the Permittee(s) jurisdictional area as existed at the time that this Order became effective.

XVIII. ANNUAL ASSESSMENT AND REPORTING

A. Each Permittee or group of Watershed Permittees shall include the information requested in A.1 through A.7 below in its Annual Report. The requested information shall be provided for each watershed within the Permittee's jurisdiction. Each Permittee shall format its Annual Report to align with the reporting requirements identified in Parts A.1 through A.7 below.

Annual Reports submitted on behalf of a group of Watershed Permittees shall clearly identify all data collected and strategies, control measures, and

assessments implemented by each Permittee within its jurisdiction as well as those implemented by multiple Permittees on a watershed scale.

- **1. Storm Water Control Measures.** Each Permittee shall make all reasonable efforts to determine, compile, analyze, and summarize the following information.
 - a. Estimated cumulative change in percent EIA since the effective date of this Order and, if possible, the estimated change in the storm water runoff volume during the 85th percentile storm event.
 - **b.** Summary of New Development/Re-development Projects constructed within the Permittee(s) jurisdictional area during the reporting year.
 - **c.** Summary of Retrofit Projects that reduced or disconnected impervious area from the MS4 during the reporting year.
 - **d.** Summary of other projects designed to intercept storm water runoff prior to discharge to the MS4 during the reporting year.
 - e. For the projects summarized above in 1.b through 1.d, estimate the total runoff volume retained on site by the implemented projects.
 - **f.** Summary of actions taken in compliance with TMDL implementation plans or approved Watershed Management Programs to implement TMDL provisions in Part VI.E and Attachments L-R of this Order.
 - **g.** Summary of riparian buffer/wetland restoration projects completed during the reporting year. For riparian buffers include width, length and vegetation type; for wetland include acres restored, enhanced or created.
 - **h.** Summary of other Minimum Control Measures implemented during the reporting year, as the Permittee deems relevant.
 - i. Status of all multi-year efforts that were not completed in the current year and will therefore continue into the subsequent year(s). Additionally, if any of the requested information cannot be obtained, the Permittee shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

2. Effectiveness Assessment of Storm Water Control Measures

- a. Rainfall summary for the reporting year. Summarize the number of storm events, highest volume event (inches/24 hours), highest number of consecutive days with measureable rainfall, total rainfall during the reporting year compared to average annual rainfall for the subwatershed. Precipitation data shall be obtained from Los Angeles County Department of Public Works rain gauge stations available at <u>http://www.ladpw.org/wrd/precip/</u>.
- **b.** Provide a summary table describing rainfall during storm water outfall and wet-weather receiving water monitoring events. The summary description shall include the date, time that the storm commenced and the storm duration in hours, the highest 15-minute recorded storm intensity

(converted to inches/hour), the total storm volume (inches), and the time between the storm event sampled and the end of the previous storm event.

- **c.** Where control measures were designed to reduce impervious cover or storm water peak flow and flow duration, provide hydrographs or flow data of pre- and post-control activity for the 85th percentile, 24-hour rain event, if available.
- **d.** For natural drainage systems, develop a reference watershed flow duration curve and compare it to a flow duration curve for the subwatershed under current conditions.
- e. Provide an assessment as to whether the quality of storm water discharges as measured at designed outfalls is improving, staying the same or declining. The Permittee may compare water quality data from the reporting year to previous years with similar rainfall patterns, conduct trends analysis, or use other means to develop and support its conclusions (e.g., use of non-storm water action levels or municipal action levels as provided in Attachment G of this Order).
- f. Provide an assessment as to whether wet-weather receiving water quality within the jurisdiction of the Permittee is improving, staying the same or declining, when normalized for variations in rainfall patterns. The Permittee may compare water quality data from the reporting year to previous years with similar rainfall patterns, conduct trends analysis, draw from regional bioassessment studies, or use other means to develop and support its conclusions.
- **g.** Status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s). Additionally, if any of the requested information cannot be obtained, the Permittee shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

3. Non-Storm Water Control Measures

- **a.** Estimate the number of major outfalls within the Permittee's jurisdiction in the subwatershed.
- **b.** Provide the number of outfalls that were screened for significant nonstorm water discharges during the reporting year.
- **c.** Provide the cumulative number of outfalls that have been screened for significant non-storm water discharges since the date this Order was adopted through the reporting year.
- **d.** Provide the number of outfalls with confirmed significant non-storm water discharge.
- e. Provide the number of outfalls where significant non-storm water discharge was attributed to other NPDES permitted discharges; other

authorized non-storm water discharges; or conditionally exempt discharges pursuant to Part III.A of this Order.

- **f.** Provide the number of outfalls where significant non-storm water discharges were abated as a result of the Permittee's actions.
- **g.** Provide the number of outfalls where non-storm water discharges was monitored.
- **h.** Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s). Additionally, if any of the requested information cannot be obtained, the Permittee shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

4. Effectiveness Assessment of Non-Storm Water Control Measures

- a. Provide an assessment as to whether receiving water quality within the jurisdiction of the Permittee is impaired, improving, staying the same or declining during dry-weather conditions. Each Permittee may compare water quality data from the reporting year to previous years with similar dry-weather flows, conduct trends analysis, draw from regional bioassessment studies, or use other means to develop and support its conclusions.
- **b.** Provide an assessment of the effectiveness of the Permittee(s) control measures in effectively prohibiting non-storm water discharges through the MS4 to the receiving water.
- **c.** Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s).

5. Integrated Monitoring Compliance Report

- **a.** Provide an Integrated Monitoring Report that summarizes all identified exceedances of (1) outfall-based storm water monitoring data, (2) wet weather receiving water monitoring data, (3) dry weather receiving water data, and (4) non-storm water outfall monitoring data against all applicable receiving water limitations, water quality-based effluent limitations, non-storm water action levels, and aquatic toxicity thresholds as defined in Sections XII.F and G of this MRP. All sample results that exceeded one or more applicable thresholds shall be readily identified.
- **b.** If Aquatic Toxicity was confirmed, identify a schedule and provide a plan that describes the anticipated process, laboratories, personnel, and procedures to conduct a Toxicity Identification Evaluation (TIE). Part XII.J.4 of this MRP provides references for the guidance manuals that should be used for performing TIEs.
- **c.** Once complete, identify the toxic chemicals as determined by the TIE. Include all relevant data to allow the Regional Water Board to review the adequacy and findings of the TIE. This shall include, but not be limited to, the sample(s) date, sample(s) start and end time, sample type(s) (flow-

weighted composite, grab, or field measurement), sample location(s) as depicted on the map, the parameters, the analytical results, and the applicable limitation.

- **d.** Provide a description of efforts that were taken to mitigate and/or eliminate all non-storm water discharges that exceeded one or more applicable water quality based effluent limitations, non-storm water action levels, or exhibited Aquatic Toxicity.
- e. Provide a description of efforts that were taken to address storm water discharges that exceeded one or more applicable water quality based effluent limitations, or exhibited Aquatic Toxicity.
- **f.** Where Receiving Water Limitations were exceeded, provide a description of efforts that were taken to determine whether discharges from the MS4 caused or contributed to the exceedances and all efforts that were taken to control the discharge of pollutants from the MS4 to those receiving waters in response to the exceedances.

6. Adaptive Management Strategies

- **a.** Identify the most effective control measures and describe why the measures were effective and how other control measures will be optimized based on past experiences.
- **b.** Identify the least effective control measures and describe why the measures were deemed ineffective and how the control measures will be modified or terminated.
- **c.** Identify significant changes to control measures during the prior year and the rationale for the changes.
- **d.** Describe all significant changes to control measures anticipated to be made in the next year and the rationale for the changes. Those changes requiring approval of the Regional Water Board or its Executive Officer shall be clearly identified at the beginning of the Annual Report.
- e. Include a detailed description of control measures to be applied to New Development or Re-development projects disturbing more than 50 acres.
- **f.** Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s).

7. Supporting Data and Information

a. All monitoring data and associated meta data used to prepare the Annual Report shall be summarized in an Excel spreadsheet and sorted by watershed, subwatershed and monitoring station/outfall identifier linked to the subwatershed map. The data summary must include the date, sample type (flow-weighted composite, grab, field measurement), sample start and stop times, parameter, analytical method, value, and units. The date field must be linked to a database summarizing the weather data for the

sampling date including 24-hour rainfall, rainfall intensity, and days since the previous rain event.

b. Optional. The Permittee may at its option, provide an additional detailed summary table describing control measures that are not otherwise described in the reporting requirements.

XIX. TMDL REPORTING

Permittees shall report on the progress of TMDL implementation per the schedules identified below in Sections A – G.

A. Reporting Requirements for Santa Clara River WMA TMDLs

Deliverable	Description	Due Date(s)
Santa Clara River Nitrogen Compounds TMDL		
Work Plan	Permittees shall submit a Work Plan to estimate ammonia and nitrogen loadings from the MS4 for approval by the Regional Water Board Executive Officer. The Work Plan must include monitoring for ammonia, nitrate, and nitrite. The Work Plan may include a phased approach wherein the first phase is based on monitoring from the existing mass emission station in the Santa Clara River. The Work Plan must also contain a protocol and a schedule for implementing additional monitoring if necessary. The Work Plan must also propose triggers for conducting source identification and implementing BMPs, if necessary.	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order
Progress Reports	Annual progress reports on the Implementation Plan must be submitted to the Regional Water Board.	December 15, 2013, and annually thereafter
	Upper Santa Clara River Chloride TMDI	
Monitoring Results	Permittees shall conduct chloride, TDS, and sulfate monitoring to ensure that water quality objectives are being met.	December 15, 2013, and annually thereafter
	Lake Elizabeth, Munz Lake, and Lake Hughes	s Trash
Progress Reports	Report compliance with the installation of full capture systems.	December 15, 2012, and annually thereafter
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL		
Receiving Water Monitoring Plan and	Permittees must submit a comprehensive in-stream bacteria water quality monitoring plan for the Santa Clara	March 21, 2013, or

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Outfall Manitaring	Diver Metershed The menitoring plan should include all	For an IMD 0 months after the
Outfall Monitoring	River Watershed. The monitoring plan should include all	For an IMP, 9 months after the
Plan	applicable bacteria water quality objectives and the	effective date of this Order; or
	sampling frequency must be adequate to assess	For a CIMP 10 months often the
	compliance with the geometric mean objectives. At a	For a CIMP, 12 months after the
	minimum, at least one sampling station shall be located	effective date of this Order
	in each impaired reach. The outfall monitoring plan shall	
	propose an adequate number of representative outfalls to	
	be sampled, a sampling frequency, and protocol for	
	enhanced outfall monitoring as a result of an in-stream	
	exceedance. The Monitoring Plans must be approved by	
	the Regional Water Board Executive Officer before the	
	monitoring data can be considered during the implementation of the TMDL. Once the monitoring plan	
	is approved by the Executive Officer, monitoring shall	
	commence within 30 days.	
Draft Implementation	Permittees must submit a draft Implementation Plan	March 21, 2015
Plan	outlining how each intends to cooperatively or individually	
1 1011	achieve compliance with the water quality-based effluent	
	limitations and the receiving water limitations. The	
	Implementation Plan shall include implementation	
	methods, an implementation schedule and proposed	
	milestones.	
Final Implementation	Permittees must submit a final Implementation Plan.	Six months after receipt of Regional
Plan		Water Board comments on the draft
		Implementation Plan.
Board Briefing	Permittees shall provide a verbal update to the Regional	March 21, 2017
Ŭ	Water Board on the progress of TMDL implementation.	

B. Reporting Requirements for Santa Monica Bay WMA TMDLs

Deliverable	Description	Due Date(s)		
	Santa Monica Bay Beaches Bacteria TMDL			
Monitoring Results	Monthly data summary reports shall be submitted to the Regional Water Board by the last day of each month for data collected during the previous month. Two agencies will submit the monthly reports on behalf of all Permittees: City of Los Angeles, Department of Public Works, Bureau of Sanitation, Environmental Monitoring Division (on behalf of Jurisdictional Groups 1 through 6, 8, and 9); and Los Angeles County Sanitation Districts (on behalf of Jurisdictional Group 7).	Monthly on the last day of the month.		
	Santa Monica Bay Nearshore and Offshore Debr			
Trash Monitoring and Reporting Plan (TMRP)	Permittees shall develop a Trash Monitoring and Reporting Plan (TMRP) for Regional Water Board Executive Officer approval that describes the methodologies that will be used to assess and monitor trash in their responsible areas within the Santa Monica Bay WMA or along Santa Monica Bay. The TMRP shall include a plan to establish a site specific trash baseline water quality-based effluent limitation if Permittees elect to not use the default baseline effluent limitation. Requirements for the TMRP shall include, but are not limited to, assessment and quantification of trash collected from source areas in the Santa Monica Bay WMA, and shoreline of the Santa Monica Bay. The monitoring plan shall provide details on the frequency, location, and reporting format. Permittees shall propose a metric (e.g., weight, volume, pieces of trash) to measure the amount of trash discharged from their jurisdictional areas.	September 20, 2012; or For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order		

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Implement TMRP	Implement TMRP	30 days from receipt of letter of approval from Regional Water Board Executive Officer, or the date a plan is established by the Executive Officer.
Plastic Pellets Monitoring and Reporting Plan	Permittees identified as responsible jurisdictions and agencies for point sources of trash in the Santa Monica Bay Debris TMDL and in the existing Malibu Creek and Ballona Creek Trash TMDLs, including the Los Angeles County Flood Control District, shall either prepare a Plastic Pellet Monitoring and Reporting Plan (PMRP) or demonstrate that a PMRP is not required. The PMRP shall include protocols for a timely and appropriate response to possible plastic pellets spills within a Permittees' jurisdictional area, and a comprehensive plan to ensure that plastic pellets are contained.	September 20, 2013, or For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order
Implement PMRP	Implement PMRP	March 20, 2016
Submit results of implementing TMRP and PMRP	Submit results of implementing TMRP and PMRP, recommend trash baseline water quality-based effluent limitations, and propose prioritization of Full Capture System installation or implementation of other measures to attain the required trash and plastic pellet reduction.	December 15, 2013, and annually thereafter
	Santa Monica Bay TMDL for DDTs and PCBs (USEPA	
Monitoring and Reporting Plan	Permittees shall develop a Monitoring and Reporting Plan for Regional Water Board Executive Officer approval that describes the methodologies that will be used to monitor and assess sediment for DDT and PCBs. The monitoring design and assessment framework should be designed to provide credible estimates of the total mass loadings to the Santa Monica Bay. Monitoring should be conducted on a	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order

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	coordinated watershed-wide basis using sufficiently		
	sensitive analytical methods for DDT and PCBs.		
	Monitoring sediments in catch basins designed for		
	pollutant prevention may be a way for Permittees to		
	quantify load reductions to the Santa Monica Bay.		
	Malibu Creek and Lagoon Bacteria TMDL	-	
Monitoring Results	Monthly data summary reports shall be submitted to the	Monthly on the last day of the month.	
	Regional Water Board by the last day of each month for		
	data collected during the previous month.		
	Malibu Creek Watershed Trash TMDL		
Submit results of	Submit results of Trash Monitoring and Reporting Plan	December 15, 2013, and annually	
TMRP	(TMRP), recommend trash baseline water quality-based	thereafter	
	effluent limitations, and propose prioritization of Full		
	Capture System installation or implementation of other		
	measures to attain the required trash.		
	Malibu Creek Watershed Nutrients TMDL (USEPA e	stablished)	
Monitoring and	Permittees shall develop a Monitoring and Reporting	For an IMP, 9 months after the	
Reporting Plan	Plan for Regional Water Board Executive Officer	effective date of this Order; or	
	approval that demonstrates compliance with the water		
	quality-based effluent limitations for total nitrogen and	For a CIMP, 12 months after the	
	total phosphorus.	effective date of this Order	
	Ballona Creek Trash TMDL		
Annual Progress	Report compliance with the required percent reduction	December 15, 2012, and annually	
Reports	of trash discharged to Ballona Creek.	thereafter.	
•	Ballona Creek Estuary Toxic Pollutants TM	DL	
Annual Monitoring	Permittees shall submit annual monitoring reports,	December 15, 2012, and annually	
Report	which include compliance summary tables, to the	thereafter.	
	Regional Water Board.		
e deserved.	Ballona Creek, Ballona Estuary and Sepulveda Channel	Bacteria TMDL	
Monitoring Results	Monthly data summary reports shall be submitted to the	Monthly on the last day of the month.	
, č	Regional Water Board by the last day of each month for		
	data collected during the previous month.		
Ballona Creek Metals TMDL			

Annual Monitoring	Permittees shall submit annual monitoring reports,	December 15, 2012, and annually
Report	which include compliance summary tables, to the	thereafter.
	Regional Water Board.	
Ballona Creek	Wetlands TMDL for Sediment and Invasive Exotic Veg	etation (USEPA established)
Monitoring and	Permittees shall develop a Sediment Monitoring and	For an IMP, 9 months after the
Reporting Plan	Reporting Plan for Regional Water Board Executive	effective date of this Order; or
	Officer approval to quantify the annual loading of	
	sediment from the Ballona Creek Watershed and the	For a CIMP, 12 months after the
	impact of the sediment loading into the Ballona Creek	effective date of this Order
	Wetlands.	
N	larina del Rey Harbor Mothers' Beach and Back Basins	Bacteria TMDL
Monitoring Results	Monthly data summary reports shall be submitted to the	Monthly on the last day of the month.
	Regional Water Board by the last day of each month for	
	data collected during the previous month.	
Marina del Rey Harbor Toxic Pollutants TMDL		
Annual Monitoring	Permittees shall submit annual monitoring reports,	December 15, 2012, and annually
Report	which include compliance summary tables, to the	thereafter.
	Regional Water Board.	

C. Reporting Requirements for Dominguez Channel and Greater Harbors Waters WMA TMDLs

Deliverable	Description	Due Date(s)	
Los Angeles Harbor Bacteria TMDL			
Monitoring Results	Monthly data summary reports shall be submitted to the	Monthly on the last day of the month.	
	Regional Water Board by the last day of each month for		
	data collected during the previous month. Machado Lake Trash TMDL		
Progress Reports	Report compliance with the required percent reduction of	December 15, 2012, and annually	
	trash discharged to Machado Lake.	thereafter.	
	Machado Lake Nutrient TMDL		
Annual Monitoring	The Cities of Palos Verdes Estates, Ranch Palos Verdes,	December 15, 2012, and annually	
Report	Rolling Hills and Rolling Hills Estates shall submit annual	thereafter.	
	monitoring reports that demonstrate compliance with the		
	concentration-based water quality-based effluent		
	limitations.		
Annual Monitoring	The City of Los Angeles shall submit annual monitoring	December 15, 2012, and annually	
Report	reports that demonstrate compliance with the Lake Water	thereafter.	
	Quality Management Plan and reduces the external nutrient loading to attain the receiving water limitations		
	for Machado Lake.		
Annual Monitoring	The City of Carson shall submit annual monitoring	December 15, 2012, and annually	
Report	reports that demonstrate compliance with the	thereafter.	
•	concentration-based water quality-based effluent		
	limitations.		
Annual Monitoring	The County of Los Angeles shall submit annual	December 15, 2012, and annually	
Report	monitoring reports that demonstrate compliance with the	thereafter.	
	mass-based water quality-based effluent limitations.		
Annual Monitoring	The City of Torrance shall submit annual monitoring	December 15, 2013, and annually	
Report	reports that demonstrate compliance with the mass-	thereafter.	
	based water quality-based effluent limitations.		
Annual Monitoring	The Cities of Lomita and Redondo Beach shall submit	December 15, 2013, and annually	

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Report	annual monitoring reports that demonstrate compliance	thereafter.
	with the concentration-based water quality-based effluent	
	limitations.	
	Machado Lake Pesticides and PCBs TMI	 Anticipation of the second seco
Monitoring and	Permittees shall develop a Monitoring and Reporting	September 20, 2012, or
Reporting Plan and	Plan (MRP) and Quality Assurance Project Plan (QAPP)	
Quality Assurance	for Regional Water Board Executive Officer approval.	For an IMP, 9 months after the
Project Plan	The MRP shall demonstrate compliance and non-	effective date of this Order; or
	compliance with the water quality-based effluent	
	limitations as part of reports submitted to the Regional	For a CIMP, 12 months after the effective date of this Order
	Water Board. The QAPP shall include protocols for sample collection, standard analytical procedures, and	enective date of this Order
	laboratory certification. All samples shall be collected in	
	accordance with SWAMP protocols.	
Begin Phase 1	Begin Phase 1 Monitoring as outlined in the approved	30 days from date of Executive Officer
Monitoring	MRP and QAPP.	approval of MRP and QAPP
Phase 1 Monitoring	Conduct Phase 1 Monitoring for 2 years.	2 year monitoring period
Draft Implementation	Based on the results of Phase 1 Monitoring, Permittees	6 months from completion of Phase 1
Plan	shall submit an Implementation Plan to attain water	Monitoring
	quality-based effluent limitations or document that water	
	quality-based effluent limitations are attained.	
Final Implementation	Permittees shall submit Final Implementation Plan.	1 year from completion of Phase 1 Monitoring
Implementation	Permittees shall begin implementation actions to attain	30 days from date of Implementation
implementation	water quality-based effluent limitation, as necessary.	Plan approval
Dominguez Ch	nannel and Greater Los Angeles and Long Beach Harbo	r Waters Toxic Pollutants TMDL
Monitoring and	Permittees shall develop Monitoring and Reporting Plans	November 23, 2013, or
Reporting Plan and	(MRPs) and Quality Assurance Project Plans (QAPPs)	
Quality Assurance	for Regional Water Board Executive Officer approval in	For an IMP, 9 months after the
Project Plan	accordance with the TMDL. The MRPs shall include a	effective date of this Order; or
	requirement that the responsible parties report	
	compliance and non-compliance with water quality-based	For a CIMP, 12 months after the
	effluent limitations as part of annual reports submitted to	effective date of this Order

	the Regional Water Board. The QAPPs shall include protocols for sample collection, standard analytical procedures, and laboratory certification. All samples shall be collected in accordance with SWAMP protocols.	
Monitoring Plan	Permittees shall implement monitoring as outlined in the approved MRP and QAPP.	30 days after MRP and QAPP is approved by Regional Water Board Executive Officer.
Annual Monitoring Reports	Permittees shall submit annual monitoring reports to the Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan and Contaminated Sediment Management Plan (CSMP)	Permittees in the Dominguez Channel and Greater Harbors Waters Watershed Management Area shall develop and submit an Implementation Plan and Contaminated Sediment Management Plan (CSMP). The CSMP shall include concrete milestones with numeric estimates of load reductions or removal, including milestones for remediating hot spots, including but not limited to Dominguez Channel Estuary, Consolidated Slip and Fish Harbor, for Regional Water Board Executive Officer approval.	1 year after the effective date of this Order
Report of Implementation	Permittees in the Los Angeles River and San Gabriel River Watersheds shall submit a Report of Implementation to the Regional Water Board.	December 15, 2013, and annually thereafter
Implementation Reports	Permittees shall submit annual implementation reports to the Regional Water Board. Report on implementation progress and demonstrate progress toward meeting the water quality-based effluent limitations.	December 15, 2014, and annually thereafter
Updated Implementation Plan and CSMP	Permittees in the Dominguez Channel and Greater Harbors Waters Watershed Management Area shall submit an updated Implementation Plan and Contaminated Sediment Management Plan (CSMP).	March 23, 2017

D. Reporting Requirements for the Los Angeles River WMA TMDLs

Deliverable	Description	Due Date(s)
	Los Angeles River Watershed Trash TMDL	
Reporting	Report compliance with the installation of full capture systems.	December 15, 2012, and annually thereafter.
	Los Angeles River Nitrogen Compounds and Related Effects	TMDL
Monitoring Work Plan	Submittal of a Monitoring Work Plan by MS4 permittees to estimate nitrogen loadings associated with runoff loads from the storm drain system for approval by the Executive Officer of the Regional Water Board. The Work Plan will include monitoring for ammonia, nitrate, and nitrite. The Work Plan may include a phased approach wherein the first phase is based on monitoring from the existing mass emission station in the Los Angeles River. The Work Plan will also contain protocol and a schedule for implementing additional monitoring if necessary. The Work Plan will also propose triggers for conducting source identification and implementing BMPs, if necessary.	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2013, and annually thereafter.
Los Angeles River and Tributaries Metals TMDL		
Annual Monitoring	Permittees shall submit annual monitoring reports as detailed in	December 15, 2012, and
Report	the approved coordinated monitoring plan to the Regional Water Board.	annually thereafter.
Los Angeles River Watershed Bacteria TMDL		

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Bacteria Coordinated	Permittees shall submit a Bacteria Coordinated Monitoring Plan	March 23, 2013, or
Monitoring Plan	(CMP), which shall be submitted for Regional Water Board Executive Officer approval. The CMP shall detail: the number	For an IMP, 9 months after
	and location of sites, including at least one monitoring station per	the effective date of this
	each river segment, reach and tributary addressed under this	Order; or
	TMDL; measurements and sample collection methods; and	
	monitoring frequencies. Permittees may also include in the CMP,	For a CIMP, 12 months after
	for Executive Officer consideration, other meteorological stations	the effective date of this Order
	which may be more representative of the existing hydrology and	
	climate.	
	Each segment, reach, and tributary addressed under this TMDL	
	shall be monitored at least monthly until the subject segment,	
	reach or tributary is at the end of the execution part of its first implementation phase (i.e. 7 years after beginning the segment	
	or tributary-specific phase), to determine compliance with the	
	interim water quality based effluent limitations. Each segment,	
	reach and tributary addressed under this TMDL shall be	
	monitored at least weekly to determine compliance with the	
	instream targets after the first implementation phase.	
	For parties pursuing a Load Reduction Strategy (LRS), intensive outfall monitoring will be conducted before and after	
	implementation of the LRS. Pre-LRS monitoring will be used to	
	estimate the E. coli loading from MS4 outfalls to the segment or	
	tributary, and identify the outfalls and types of implementation	
	actions that are expected to be necessary to attain the water quality based limits. Post-LRS monitoring will be used to	
	evaluate compliance with the interim water quality based limits	
	and to plan for additional implementation actions to meet the final	
	water quality based limits, in a second implementation phase, if	
	necessary.	
	When applicable, outfall manitoring aball including <i>E</i> , cali by	
	When applicable, outfall monitoring shall including <i>E. coli</i> by USEPA- approved methods and flow rate at <i>all</i> MS4 outfalls	

	("snapshots") that are discharging to a segment or tributary or across jurisdictional boundaries during a given monitoring event. For each LRS, at least six (6) snapshots shall be conducted for pre-LRS monitoring, and at least three (3) snapshots shall be conducted for post- LRS monitoring. For MS4s that choose to follow a non-LRS implementation approach, but choose to demonstrate compliance with Equivalent Conditions, at least six (6) snapshots shall be conducted.	
Implement CMP	Permittees shall begin implementation actions to attain water quality-based effluent limitation, as necessary.	30 days after approval of the CMP
Annual Monitoring Report	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan	Permittees shall submit an Implementation Plan for wet weather with interim milestones for approval of the Regional Water Board Executive Officer.	March 23, 2022
L	ong Beach City Beaches and Los Angeles River Estuary Bacter	ria TMDL
Compliance Monitoring	To evaluate compliance with numeric targets, monitoring shall take place at existing monitoring sites as well as any new monitoring locations in the ambient water. For beach monitoring locations, daily or systematic weekly sampling in the wave wash at all major drains and creeks, existing monitoring stations at beaches without storm drains, and freshwater outlets is recommended to evaluate compliance. At all beach locations, samples should be taken at ankle depth and on an incoming wave, consistent with section 7961(b) of title 17 of the California Code of Regulations. At locations where there is a freshwater outlet, during wet weather, samples should be taken as close as possible to the wave wash, and no further away than 10 meters down current of the storm drain or outlet. A robust monitoring program shall be developed for the LAR Estuary. Available data includes bi-weekly monitoring from May through September of 2009, and 2010. Monitoring shall be expanded to include year round monitoring requirements, and at least three monitoring locations within the Estuary. We understand that adequate data to establish a reference estuary	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order

Annual Monitoring	approach is currently not available. If in the future, adequate data from reference estuary studies become available, it may be appropriate to consider a reference estuary approach to evaluate compliance with these TMDLs. Annual reporting of monitoring results to the Regional Water	December 15, 2013, and			
Report	Board.	annually thereafter.			
	Los Angeles Area Lakes TMDLs				
Correctiones	Lake Calabasas Nutrient TMDL				
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in-lake water quality parameters: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids, total dissolved solids and chlorophyll a. Measurements of the temperature, DO, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement. All parameters must meet target levels at half the Secchi depth. DO and pH must meet target levels from the surface of the water to 0.3 meters above the lake bottom. Additionally, in order to accurately calculate compliance with water quality based limits to the lake expressed in yearly loads, monitoring should include flow estimation or monitoring as well as the water quality concentration measurements.	At a minimum twice during summer months and once during winter.			
Supplemental Water Monitoring	At Lake Calabasas, water quality based limits are assigned to supplemental water additions. This source should be monitoring for at minimum; ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids and total dissolved solids.	Once a year during the summer months (critical conditions).			
Stormwater Monitoring	Stormwater sources should be measured near the point where they enter the lakes for at minimum: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids and total dissolved solids.	Twice a year.			
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.			

Echo Park Lake Nutrient TMDL		
Compliance Monitoring	Echo Park Lake Nutrient TMDL At a minimum, compliance monitoring should measure the following in-lake water quality parameters: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids, total dissolved solids and chlorophyll a. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement. All parameters must meet target levels at half the Secchi depth. DO and pH must meet target levels from the surface of the water to 0.3 meters above the lake bottom. Additionally, in order to accurately calculate compliance	At a minimum twice during summer months and once during winter.
Stormwater	with water quality based limits to the lake expressed in yearly loads, monitoring should include flow estimation or monitoring as well as the water quality concentration measurements. Stormwater sources should be measured near the point where	Twice a year.
Monitoring	they enter the lakes for at minimum: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids and total dissolved solids.	
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.
	Echo Park Lake PCBs and Organochlorine Pesticide TMD	
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in-lake water quality parameters: total suspended sediments, total PCBs, total chlordane, and dieldrin; as well as the following in-lake sediment parameters: total organic carbon, total PCBs, total chlordane, and dieldrin. Environmentally relevant detection limits should be used (i.e., detection limits lower than applicable target), if available at a commercial laboratory. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement.	December 15, 2013, and annually thereafter.

Fish Tissue	Monitoring of fish tissue. For the OC pesticides and PCBs	At least every three years.
Monitoring	TMDLs, a demonstration that fish tissue targets have been met in	, , , , , , , , , , , , , , , , , , ,
0	any given year must at minimum include a composite sample of	
	skin off fillets from at least five largemouth bass each measuring	A
	at least 350mm in length.	
Stormwater	Stormwater sources should be measured near the point where	Once a year during a wet
Monitoring	they enter the lakes. Sampling should be designed to collect	weather event.
	sufficient volumes of suspended solids to allow for the analysis of	
	at minimum: total organic carbon, total suspended solids, total	
	PCBs, total chlordane, and dieldrin. Measurements of the	
	temperature, dissolved oxygen, pH and electrical conductivity	
	should also be taken.	
Reporting	Annual reporting of monitoring results to the Regional Water	December 15, 2012, and
	Board.	annually thereafter.
	Echo Park Lake Trash TMDL	
Compliance	Responsible jurisdictions should monitor the trash quantity	Quarterly.
Monitoring	deposited in the vicinity of Echo Park Lake as well as on the	
	waterbody to comply with the TMDL target and to understand the	
	effectiveness of various implementation efforts. The Rapid Trash	
	Assessment Method is recommended.	
Reporting	Annual reporting of monitoring results to the Regional Water	December 15, 2012, and
	Board.	annually thereafter.
	Peck Road Park Lake Nutrient TMDL	
Compliance	At a minimum, compliance monitoring should measure the	At a minimum twice during
Monitoring	following in-lake water quality parameters: ammonia, TKN or	summer months and once
	organic nitrogen, nitrate plus nitrite, orthophosphate, total	during winter.
	phosphorus, total suspended solids, total dissolved solids and	
	chlorophyll a. Measurements of the temperature, DO, pH and	
	electrical conductivity should also be taken throughout the water	
	column with a water quality probe along with Secchi depth	
	measurement. All parameters must meet target levels at half the	
	Secchi depth. Deep lakes, such as Peck Road Park Lake, must	
	meet the DO and pH targets in the water column from the surface	

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	to 0.3 meters above the bottom of the lake when the lake is not stratified. However, when stratification occurs (i.e., a thermocline is present) then the DO and pH targets must be met in the epilimnion, the portion of the water column above the thermocline. Additionally, in order to accurately calculate compliance with water quality based limits to the lake expressed in yearly loads, monitoring should include flow estimation or monitoring as well as the water quality concentration measurements.	
Stormwater	Stormwater sources should be measured near the point where	Twice a year.
Monitoring	they enter the lakes for at minimum: ammonia, TKN or organic	
	nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus,	
Describer	total suspended solids and total dissolved solids.	
Reporting	Annual reporting of monitoring results to the Regional Water	December 15, 2012, and
	Board.	annually thereafter.
Compliance	Peck Road Park Lake PCBs and Organochlorine Pesticide TI	
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in-lake water quality parameters: total suspended	December 15, 2013, and annually thereafter.
wormormg	sediments, total PCBs, total chlordane, total DDTs, and dieldrin;	annually increation.
	as well as the following in-lake sediment parameters: total	
	organic carbon, total PCBs, total chlordane, total DDTs, and	
	dieldrin. Environmentally relevant detection limits should be used	
	(i.e., detection limits lower than applicable target), if available at a	
	commercial laboratory. Measurements of the temperature,	
	dissolved oxygen, pH and electrical conductivity should also be	
	taken throughout the water column with a water quality probe	
	along with Secchi depth measurement.	
Fish Tissue	Monitoring of fish tissue. For the OC pesticides and PCBs	At least every three years.
Monitoring	TMDLs, a demonstration that fish tissue targets have been met in	
, v	any given year must at minimum include a composite sample of	
	skin off fillets from at least five common carp each measuring at	
	least 350mm in length.	
Stormwater	Stormwater sources should be measured near the point where	Once a year during a wet

Monitoring	they enter the lakes. Sampling should be designed to collect sufficient volumes of suspended solids to allow for the analysis of at minimum: total organic carbon, total suspended solids, total PCBs, total chlordane, total DDTs, and dieldrin. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken.	weather event.
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.
Peck Road Park Lake Trash TMDL		
Compliance Monitoring	Responsible jurisdictions should monitor the trash quantity deposited in the vicinity of Peck Road Park Lake as well as in the waterbody to comply with the TMDL target and to understand the effectiveness of various implementation efforts. The Rapid Trash Assessment Method is recommended.	Quarterly.
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.

E. Reporting Requirements for San Gabriel River WMA TMDLs

Deliverable	Description	Due Date(s)
	San Gabriel River and Impaired Tributaries Metals and Selenium 7	MDL
Coordinated Monitoring Plan	Permittees shall develop a Coordinated Monitoring Plan, to be approved by the Regional Water Board Executive Officer, which includes both TMDL effectiveness monitoring and ambient monitoring. The ambient monitoring program shall contain monitoring in all reaches and major tributaries of the San Gabriel River, including but not limited to additional dry- and wet-weather monitoring in the San Gabriel River Reaches 4 and 5 and Walnut Creek, additional dry-weather monitoring in San Gabriel River Reach 2, and additional wet-weather monitoring in San Jose Creek, San Gabriel River Reaches 1 and 3, and the Estuary. Sediment samples shall be collected semi-annually in the Estuary and analyzed for sediment toxicity resulting from copper, lead, selenium, and zinc.	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order
	The TMDL effectiveness monitoring shall demonstrate the effectiveness of the phased implementation schedule for reducing pollutant loads to achieve the dry- and wet-weather water quality based effluent limitations. Monitoring stations specified for the ambient monitoring program may be used for the TMDL effectiveness monitoring. The final dry-weather monitoring stations shall be located in San Jose Creek Reach 1 and the Estuary. The final wet-weather TMDL effectiveness monitoring stations may be located at the existing Los Angeles County Department of Public Works mass emission sites in San Gabriel River Reach 2 and Coyote Creek. Permittees shall sample once per month, during dry-weather conditions, at each proposed TMDL effectiveness monitoring location. Permittees shall sample at least 4 wet-weather events where flow meets wet- weather conditions (260 cfs in San Gabriel River Reach 2 and 156 cfs in	

Annual Monitoring Report Implementation	Coyote Creek) in a given storm season (November to March), unless there are fewer than 4 wet-weather events, at each proposed TMDL effectiveness monitoring location. Permittees are encouraged to coordinate with the San Gabriel watershed-wide monitoring program to avoid duplication and leverage resources. Annual reporting of monitoring results to the Regional Water Board. Permittees shall submit an Implementation Plan outlining how to achieve	December 15, 2012, and annually thereafter. 1 year after the effective	
Plan	compliance with the water quality based effluent limitations, for approval of the Regional Water Board Executive Officer. The Plan shall include implementation methods, an implementation schedule, and proposed milestones.	date of this Order	
	Legg Lake Trash TMDL		
TMRP Reports	Report compliance with the installation of full capture systems.	December 15, 2012, and annually thereafter	
TMRP Reports MFAC	Report compliance with the approved MFAC program.	December 15, 2012, and annually thereafter	
	Los Angeles Area Lakes TMDLs		
	Legg Lake System Nutrient TMDL		
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in- lake water quality parameters: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids, total dissolved solids and chlorophyll <i>a</i> . Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement. All parameters must meet target levels at half the Secchi depth. DO and pH must meet target levels from the surface of the water to 0.3 meters above the lake bottom. Additionally, in order to accurately calculate compliance with water quality based limits to the lake expressed in yearly loads, monitoring should include flow estimation or monitoring as well as the water quality concentration measurements.	At a minimum twice during summer months and once during winter.	
Stormwater	Stormwater sources should be measured near the point where they	Twice a year.	

Monitoring	enter the lakes for at minimum: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids and total dissolved solids.	
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.
	Puddingstone Reservoir Nutrient TMDL	
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in- lake water quality parameters: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids, total dissolved solids and chlorophyll a. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement. All parameters must meet target levels at half the Secchi depth. DO and pH must meet target levels from the surface of the water to 0.3 meters above the lake bottom when the lake is not stratified. However, when stratification occurs (i.e., a thermocline is present) then the DO and pH targets must be met in the epilimnion, the portion of the water column above the thermocline. Additionally, in order to accurately calculate compliance with water quality based limits to the lake expressed in yearly loads, monitoring should include flow estimation or monitoring as well as the water quality concentration measurements.	At a minimum twice during summer months and once during winter.
Stormwater Monitoring	Stormwater sources should be measured near the point where they enter the lakes for at minimum: ammonia, TKN or organic nitrogen, nitrate plus nitrite, orthophosphate, total phosphorus, total suspended solids and total dissolved solids.	Twice a year.
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.
	Puddingstone Reservoir Mercury TMDL	
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in- lake water quality parameters: total mercury, methylmercury, chloride, sulfate, total organic carbon, alkalinity, total suspended solids, and total dissolved solids; as well as the following in-lake sediment parameters:	Twice a year.

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	total mercury, dissolved methylmercury, total organic carbon, total solids and sulfate. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement. Additionally, in order to accurately calculate compliance with allocations expressed in yearly loads, monitoring should include flow estimation or monitoring as well as water quality concentration measurements.	
Fish Tissue Monitoring	Monitoring should include monitoring of largemouth bass (325-375mm in length) fish tissue (skin-off fillets) for mercury concentration.	At least every three years.
Stormwater Monitoring	Stormwater sources should be measured near the point where they enter the lakes for at minimum: total mercury, methyl mercury, chloride, sulfate, total organic carbon, alkalinity, total suspended solids, and total dissolved solids.	Twice a year.
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.
	Puddingstone Reservoir PCBs and Organochlorine Pesticide TM	DLs
Compliance Monitoring	At a minimum, compliance monitoring should measure the following in- lake water quality parameters: total suspended sediments, total PCBs, total chlordane, dieldrin, and total DDTs; as well as the following in-lake sediment parameters: total organic carbon, total PCBs, total chlordane, dieldrin, and total DDTs. Environmentally relevant detection limits should be used (i.e., detection limits lower than applicable target), if available at a commercial laboratory. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken throughout the water column with a water quality probe along with Secchi depth measurement.	Annually.
Fish Tissue Monitoring	Monitoring of fish tissue. For the OC pesticides and PCBs TMDLs a demonstration that fish tissue targets have been met in any given year must at minimum include a composite sample of skin off fillets from at least five common carp each measuring at least 350mm in length.	At least every three years.
Stormwater Monitoring	Stormwater sources should be measured near the point where they enter the lakes. Sampling should be designed to collect sufficient	Once a year during a wet weather event.

	volumes of suspended solids to allow for the analysis of at minimum: total organic carbon, total suspended solids, total PCBs, total chlordane, dieldrin, and total DDTs. Measurements of the temperature, dissolved oxygen, pH and electrical conductivity should also be taken.	
Reporting	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2012, and annually thereafter.

F. Reporting Requirements for Los Cerritos Channel WMA TMDLs

Deliverable	Description	Due Date(s)		
	Los Cerritos Channel Metals TMDL			
Coordinated Monitoring Plan	Permittees shall develop a Coordinated Monitoring Plan, to be approved by the Regional Water Board Executive Officer, which includes both TMDL effectiveness monitoring and ambient monitoring. The ambient monitoring program shall be developed to track trends in water quality improvements in Los Cerritos Channel; to provide background information on hardness values; and the partitioning of metals between the total recoverable and dissolved fraction.	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order		
	TMDL effectiveness monitoring shall demonstrate the effectiveness of the phased implementation schedule for reducing pollutant loads to achieve the water quality based effluent limitations. Monitoring stations specified for the ambient monitoring program may be used for the TMDL effectiveness monitoring. Permittees shall sample at least 4 wet-weather events where flow meets wet-weather conditions (>23 cfs in Los Cerritos Channel above the tidal prism) in a given storm season.			
Annual Monitoring Report	Annual reporting of monitoring results to the Regional Water Board.	December 15, 2013, and annually thereafter.		
Implementation Plan	Permittees shall submit an Implementation Plan outlining how to achieve compliance with the water quality based effluent limitations, for approval of the Regional Water Board Executive Officer. The Plan shall include implementation methods, an implementation schedule, and proposed milestones.	1 year after the effective date of this Order		
Colora	do Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and M	etals TMDL		
Monitoring	Water column and sediment samples will be collected at the outlet of the storm drains discharging to the lagoon, while water column, sediment, and fish tissue samples will be collected in the West Arm,	6 months after Regional Water Board Executive Officer approves the		

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	Central Arm, North Arm, at the outlet of the lagoon to Marine Stadium during an incoming tide, and at the outfall of Termino Avenue Drain to Marine Stadium as specified in the Colorado Lagoon TMDL Monitoring Plan (CLTMP).	CLTMP.
Annual Monitoring Reports	Permittees shall submit annual monitoring reports to the Regional Water Board. All compliance monitoring must be conducted in conjunction with a Regional Water Board approved Quality Assurance Project Plan.	December 15, 2013, and annually thereafter.
Implementation Progress	Permittees shall submit annual progress reports on the status of implementation actions performed under the TMDL. The plan shall contain mechanisms for demonstration progress toward meeting the water quality based effluent limitations.	December 15, 2013, and annually thereafter.

G. Reporting Requirements for Middle Santa Ana River WMA TMDL

Deliverable	Description	Due Date(s)		
	Middle Santa Ana River Watershed Bacteria Indicator TMDL			
Bacterial Indicator Water Quality Monitoring Plan	Permittees shall develop and submit for approval by the Executive Officer of the Regional Water Board a Bacterial Indicator Water Quality Monitoring Plan in accordance with the TMDL.	For an IMP, 9 months after the effective date of this Order; or For a CIMP, 12 months after the effective date of this Order		
Bacterial Indicator Urban Source Evaluation Plan	Permittees shall develop and submit for approval by the Regional Water Board a Bacterial Indicator Urban Source Evaluation Plan. This plan shall include steps needed to identify specific activities, operations, and processes in urban areas that contribute bacterial indicators to San Antonio Channel. The plan shall also include a proposed schedule for completion of each of the steps identified.	1 year after the effective date of this Order		
Progress Reports	Annual progress reports on implementation shall be submitted to the Regional Water Board.	December 15, 2013, and annually thereafter.		

I, Samuel Unger, Executive Officer, do hereby certify that this Monitoring and Reporting Program is a full, true, and correct copy of the MRP adopted by the California Regional Water Quality Control Board, Los Angeles Region, on <Adoption Date>.

Samuel Unger, P.E. Executive Officer

Date: _____ 2012

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in Part II of this Order, this Fact Sheet sets forth the significant sets forth the significant factual, legal, methodological, and policy rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to the Dischargers covered by this Order. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to the Dischargers.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility and the Dischargers.

able 1 - 1.1 achity and Discharger mormation		
WDID	Various (See Table 4 of Order)	
Dischargers	The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach (See Table 4 of Order)	
Name of Facility	Municipal Separate Storm Sewer Systems (MS4s) within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District	
Facility Address	Various	
Facility Contact, Title and Phone	Various (See Table 4 of Order)	
Mailing Address	Various (See Table 4 of Order)	
Billing Address	Same as above	
Type of Facility	Large Municipal Separate Storm Sewer System (MS4) ¹	
Major or Minor Facility	Major	

¹ According to 40 CFR § 122.26(b)(8), "[a] municipal separate storm sewer system (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

⁽i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

⁽ii) Designed or used for collecting or conveying storm water;

⁽iii) Which is not a combined sewer; and

⁽iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

Watersheds	 (1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed; (4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Area;(6) San Gabriel River Watershed; and (7) Santa Ana River Watershed
Receiving Water	Surface waters identified in Tables 2-1, 2-1a, 2-3, and 2-4, and Appendix 1, Table 1 of the Water Quality Control Plan - Los Angeles Region (Basin Plan), and other unidentified tributaries to these surface waters within the following Watershed Management Areas: (1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed; (4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Area; (6) San Gabriel River Watershed; and (7) Santa Ana River Watershed ² .
Receiving Water Type	Inland surface waters, estuarine waters, and marine waters, including wetlands, lakes, rivers, estuaries, lagoons, harbors, bays, and beaches

The Los Angeles County Flood Control District, Los Angeles County, and the 84 municipalities listed in Table F-2 above are the owners and/or operators³ of the Los Angeles County Municipal Separate Storm Sewer System (hereinafter Facility).

For the purposes of this Order, the entities listed in Table 4 of the Order are hereinafter referred to separately as "Permittees" and jointly as the "Dischargers." References to "discharger" or "permittee" or "co-permittee" or "municipality" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Dischargers or Permittees herein.

II. FACILITY DESCRIPTION

A. Description of the Los Angeles County MS4

The Los Angeles County MS4, like many MS4s in the nation, is based on regional floodwater management systems that use both natural and altered water bodies to achieve flood management goals. The Los Angeles County MS4 is a large

² Note that the Santa Ana River Watershed lies primarily within the boundaries of the Santa Ana Regional Water Quality Control Board. However, a portion of the Chino Basin subwatershed lies within the jurisdictions of Pomona and Claremont in Los Angeles County. The primary receiving water within the Los Angeles County portion of the Chino Basin subwatershed is San Antonio Creek.

³ Owner or operator means the owner or operator of any facility or activity subject to regulation under the NPDES program (40 CFR § 122.2).

interconnected system, controlled in large part by the Los Angeles County Flood Control District (LACFCD), among others, and used by multiple cities along with Los Angeles County. This extensive system conveys storm water and non-storm water across municipal boundaries where it is commingled within the MS4 and then discharged to a receiving water body.

The Los Angeles County Flood Control Act was passed in 1915. The original Los Angeles MS4 was developed in the 1930s by the U.S. Army Corps of Engineers (ACOE). As Los Angeles began to grow rapidly in the 1920s and 1930s, storm water that was once absorbed by acres of undeveloped land began to run off the newly paved and developed areas, leading to an increased amount of water flowing into the region's rivers and local creeks. These waterways could not contain the increased amount of water and the region experienced extensive flooding. In response, the ACOE lined the Los Angeles River and Ballona Creek with concrete and initiated the development of an underground urban drainage system. As Los Angeles County MS4 developed.

The Los Angeles County Flood Control District boundaries encompass more than 3,000 square miles, 85 incorporated cities, unincorporated areas, and approximately 2.1 million land parcels. The Los Angeles County Flood Control District owns drainage infrastructure, including owning or maintaining easements for drainage facilities and access, within incorporated and unincorporated areas in every watershed in the Los Angeles Region, including 500 miles of open channels, 2,900 miles of underground storm drains, over 80,000 catch basins, and 52 pump stations.

The total length of the greater LA County MS4, and the locations of all storm drain connections, are not known exactly, as a comprehensive map for the MS4 does not exist. Rough estimates, based on information from the LACFCD and large municipalities (population > 100,000), indicate that the length exceeds 4,300 miles, as shown below.

Permittee	Area	Catch Basins	Storm Drain	Open Channel Length
	(Square Miles)		Length	
LA County	3,100	73,000	2,650 miles	450 miles
City of LA	469	30,000	1,600 miles	31 miles
El Monte	10	316	11 miles	0.4 mile
Glendale	30.6	1,100	Unknown	Unknown
Inglewood	9	1,157	12 miles	Unknown
Pasadena	26	1,050	30	Unknown
Santa Monica	8.3	850	Unknown	Unknown

Table F-2. Extent of LA County MS4

Permittee	Area	Catch Basins	Storm Drain	Open Channel Length
	(Square Miles)		Length	
Torrance	20	2,000	20 miles	3 miles
TOTAL		109,473	4,323	484.4

The Los Angeles County Flood Control District also owns the County of Los Angeles Department of Public Works headquarters building and Los Angeles County Flood Control District maintenance yards to support its field operations.

Storm water and non-storm water are conveyed through the MS4 and ultimately discharged into receiving waters of the Los Angeles Region. The Los Angeles County Flood Control District's infrastructure receives storm water and non-storm water flows from various sources. These flows come from MS4s owned by other Permittees covered by this Order and other public agencies that connect to the Los Angeles County Flood Control District's infrastructure, NPDES permitted discharges, discharges authorized by the USEPA (including discharges subject to a decision document approved pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)), groundwater, and natural flows.

The Los Angeles County Flood Control District owns its headquarters building located at 900 South Fremont Avenue in the City of Alhambra, California. The facility includes a fueling station and a wash rack that discharges to the sanitary sewer. The wash rack is used to wash Department of Public Works vehicles. The Los Angeles County Flood Control District also operates 12 flood maintenance yards. Materials and equipment associated with maintaining the flood control facilities are stored at the yards.

The requirements contained in this Order apply to the Los Angeles County Flood Control District, 84 cities within the Los Angeles County Flood Control District, and the unincorporated areas of Los Angeles County under County jurisdiction, with the exception of the City of Long Beach. Under the previous Order, Order No. 01-182, the Los Angeles County Flood Control District was designated the Principal Permittee, and the County of Los Angeles and the 84 incorporated cities were designated co-Permittees. However, in this Order, the role of Principal Permittee has been eliminated. This Order divides Los Angeles County into seven Watershed Management Areas (WMAs).

B. The Need to Regulate Discharges from MS4s

The quality of storm water and non-storm water discharges from MS4s is fundamentally important to the health of the environment and the quality of life in Southern California. Polluted storm water and non-storm water discharges from MS4s are a leading cause of water quality impairment in the Los Angeles Region. Storm water and non-storm water discharges are often contaminated with pesticides, fertilizers, fecal indicator bacteria and associated pathogens, trash, automotive byproducts, and many other toxic substances generated by activities in the urban environment. Water that flows over streets, parking lots, construction sites, and industrial, commercial, residential, and

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municipal areas carries these untreated pollutants through the MS4 directly into the receiving waters of the Region. The water quality impacts, ecosystem impacts, and increased public health risks from MS4 discharges that affect receiving waters nationwide and throughout Los Angeles County, including its coastline, are well documented.

The National Urban Runoff Program (NURP) Study (USEPA 1983) showed that MS4 discharges draining from residential, commercial, and light industrial areas contain significant loadings of total suspended solids and other pollutants. Many studies continue to support the conclusions of the NURP Study. The NURP Study also found that pollutant levels from illicit discharges were high enough to significantly degrade receiving water quality, and threaten aquatic life, wildlife, and human health. The general findings and conclusions of the NURP Study are reiterated in the more recent 2008 National Research Council report "Urban Runoff Management in the United States" as well as in a regional study, "Sources, Patterns and Mechanisms of storm Water Pollutant Loading from Watersheds and Land Uses of the Greater Los Angeles Area, California," SCCWRP Technical Report 510 (2007), funded in large part by the Regional Water Board.

Some of the conclusions of the 2007 regional study were as follows.

Storm water runoff from watershed and land use based sources is a significant contributor of pollutant loading and often exceeds water quality standards. High pollutant concentrations were observed throughout the study at both mass emission (ME) and land use (LU) sites. Pollutant concentrations frequently exceeded water quality standards.

Storm water Event Mean Concentrations (EMCs), fluxes and loads were substantially lower from undeveloped open space areas when compared to developed urbanized watersheds. Storms sampled from less developed watersheds produced pollutant EMCs and fluxes that were one to two orders of magnitude lower than comparably sized storms in urbanized watersheds. Furthermore, the higher fluxes from developed watersheds were generated by substantially less rainfall than the lower fluxes from the undeveloped watersheds, presumably due to increased impervious surface area in developed watersheds.

The Los Angeles region contributed a similar range of storm water runoff pollutant loads as that of other regions of the United States. Comparison of constituent concentrations in storm water runoff from land use sites from this study reveal median EMCs that are comparable to U.S. averages reported in the National Storm water Quality Database (NSQD; Pitt et al., 2003). Comparison to the NSQD data set provides insight to spatial and temporal patterns in constituent concentrations in urban systems. Similarities between levels reported in the NSQD and this study suggest that land-based concentrations in southern California storm water are generally comparable to those in other parts of the country.

Peak concentrations for all constituents were observed during the early part of the storm. Constituent concentrations varied with time over the course of storm events. For

all storms sampled, the highest constituent concentrations occurred during the early phases of storm water runoff with peak concentrations usually preceding peak flow. Although the pattern of an early peak in concentration was comparable in both large and small developed watersheds, the peak concentration tended to occur later in the storm and persist for a longer duration in the smaller developed watersheds. Therefore monitoring programs must capture the early portion of storms and account for intrastorm variability in concentration in order to generate accurate estimates of EMC and contaminant loading. Programs that do not initiate sampling until a flow threshold has been surpassed may severely underestimate storm EMCs.

Highest constituent loading was observed early in the storm season with intra-annual variability driven more by antecedent dry period than amount of rainfall. Seasonal differences in constituent EMCs and loads were consistently observed at both ME and LU sites. In general, early season storms (October – December) produce significantly higher constituent EMCs and loads than late season storms (April-May), even when rainfall quantity was similar. This suggests that the magnitude of constituent load associated with storm water runoff depends, at least in part, on the amount of time available for pollutant build-up on land surfaces. The extended dry period that typically occurs in arid climates such as southern California maximizes the time for constituents to build-up on land surfaces, resulting in proportionally higher concentrations and loads during initial storms of the season.

The 1992, 1994, and 1996 National Water Quality Inventory Reports to Congress prepared by USEPA showed a trend of impairment in the Nation's waters from contaminated storm water and dry weather urban runoff. The 2004 National Water Quality Inventory (305(b) Report) showed that urban runoff/storm water discharges contribute to the impairment of 22,559 miles of streams, the impairment of 701,024 acres of lakes, and the impairment of 867 square miles of estuaries in the United States. The Natural Resources Defense Council (NRDC) 1999 Report, "Stormwater Strategies, Community Responses to Runoff Pollution" identifies two main causes of the storm water pollution problem in urban areas. Both causes are directly related to development in urban and urbanizing areas:

Increased volume and velocity of surface runoff. There are three types of human-made impervious covers that increase the volume and velocity of runoff: (i) rooftop, (ii) transportation imperviousness, and (iii) non-porous (impervious) surfaces. As these impervious surfaces increase, infiltration will decrease, forcing more water to run off the surface, picking up speed and pollutants.

The concentration of pollutants in the runoff. Certain activities, such as those from industrial sites, are large contributors of pollutant concentrations to the MS4.

The report also identified several activities causing storm water pollution from urban areas, including practices of homeowners, businesses, and government agencies.

Studies conducted by the United States Geological Survey (USGS) confirm the link between urbanization and water quality impairments in urban watersheds due to contaminated storm water runoff.

Furthermore, the water quality impacts of urbanization and urban storm water discharges have been summarized by several other recent USEPA reports. Urbanization causes changes in hydrology and increases pollutant loads which adversely impact water quality and impair the beneficial uses of receiving waters. Increases in population density and imperviousness result in changes to stream hydrology including:

- increased peak discharges compared to predevelopment levels;
- increased volume of storm water runoff with each storm compared to predevelopment levels;
- decreased travel time to reach receiving water;
- increased frequency and severity of floods;
- reduced stream flow during prolonged periods of dry weather due to reduced levels of infiltration;

• increased runoff velocity during storms due to a combination of effects of higher discharge peaks, rapid time of concentration, and smoother hydraulic surfaces from channelization; and

• decreased infiltration and diminished groundwater recharge.

The Los Angeles County MS4 program has conducted monitoring to:

- quantify mass emissions for pollutants;
- identify critical sources for pollutants of concern in storm water;
- evaluate BMP effectiveness; and
- evaluate receiving water impacts, including impacts to tributaries.

The monitoring indicates that instream concentrations of pathogen indicators (fecal coliform and streptococcus), heavy metals (such as Pb, Cu, Zn) and pesticides (such as diazinon) exceed water quality standards. The mass emissions of pollutants to the ocean are significant from the urban WMAs such as the Los Angeles River WMA, Ballona Creek WMA, and Coyote Creek WMA, with the Los Angeles River WMA providing more than seventy percent of the loadings. Critical source data for facilities (such as auto-salvage yards, primary metal facilities, and automotive repair shops) show that total and dissolved heavy metals (Pb, Cu, Zn, and Cd), and total suspended solids (TSS) exceeded water quality standards by as much as two orders of magnitude. The results are consistent with a limited term study conducted by the Regional Water Board to characterize storm water runoff in the Los Angeles region in 1988 before the issuance of first MS4 permit. Storm water runoff data from predominant land uses in Los Angeles County showed similar patterns. Light industrial, commercial and transportation land uses showed the highest range of exceedances. A pesticide (diazinon) was detected in higher concentrations from residential land use. The data for polycyclic aromatic hydrocarbons (PAHs), a known pollutant of concern in urban storm water runoff, is inconclusive but improved analytical methods may yield more definitive results in the future. Receiving water impacts studies found that storm water discharges from urban watersheds exhibit toxicity attributable to heavy metals. Bioassessments of the benthic communities showed bioaccumulation of toxicants. Sediment analysis showed higher concentrations of pollutants, such as Pb and PAHs, in urban watersheds than in rural watersheds (2 to 4 times higher). In addition, toxicity of dry weather flows was observed with the cause of toxicity undetermined. Other studies have documented

concentrations of pollutants that exceed water quality standards in storm drains flowing to the ocean during dry weather, and adverse health impacts from swimming near flowing storm drains.

Trash is also a serious and pervasive water quality problem in Los Angeles County. The Regional Water Board has determined that current levels of trash exceed the existing water quality objectives contained in the Basin Plan that are necessary to protect the beneficial uses of many surface waters. Regional Water Board staff regularly observes trash in surface waters throughout the Los Angeles region. Non-profit organizations such as Heal the Bay, Friends of the Los Angeles River (FoLAR) and others organize volunteer clean-ups periodically, and document the amount of trash collected. Trash in waterways causes significant water quality problems. Small and large floatables inhibit the growth of aquatic vegetation, decreasing habitat and spawning areas for fish and other living organisms. Wildlife living in rivers and in riparian areas can be harmed by ingesting or becoming entangled in floating trash. Except for large items, settleables are not always obvious to the eye. They include glass, cigarette butts, rubber, and construction debris, among other things. Settleables can be a problem for bottom feeders and can contribute to sediment contamination. Some debris (e.g. diapers, medical and household waste, and chemicals) are a source of bacteria and toxic substances. Floating debris that is not trapped and removed will eventually end up on the beaches or in the open ocean, keeping visitors away from our beaches and degrading coastal waters.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

The Los Angeles County MS4 Permit was last reissued in 2001 as Order No.01-182. Order No. 01-182 expired in 2006, but has been administratively extended pursuant to federal regulations. Order No. 01-182 was reopened by the Regional Water Board in 2006, 2007 and 2009 to incorporate provisions to implement three TMDLs. It was further amended in 2010 and 2011 pursuant to a peremptory writ of mandate issued by the Los Angeles County Superior Court.

Order No. 01-182 is organized under the following seven parts and includes several attachments. The description below summarizes key permit parts and attachments in Order No. 01-182:

Part 1 – Discharge Prohibitions

As required by section 402(p)(3)(B)(ii) of the Clean Water Act, Part 1 requires permittees to "effectively prohibit non-storm water discharges into the MS4 and watercourses, except where such discharges" are covered by a separate NPDES permit or fall within one of thirteen categories of flows that are conditionally exempted from the discharge prohibition. These exempted flows fall under the general categories of natural flows, fire fighting flows, and flows incidental to urban activities (i.e. landscape irrigation, sidewalk rinsing). These non-storm water flows may be exempted so long as: (i) they are not a source of pollutants, (ii) their effective prohibition is not necessary to comply with TMDL provisions, and (iii) they do not violate antidegradation policies. Part 1 also authorizes the Regional Water Board Executive Officer to impose conditions on these types of discharges and to add or remove categories of conditionally exempted non-

storm water discharges based on their potential to contribute pollutants to receiving waters.

Part 2 - Receiving Water Limitations

Part 2 prohibits discharges from the MS4 that cause or contribute to the violation of water quality standards. In addition, discharges from the MS4 of storm water or nonstorm water, for which a Permittee is responsible, may not cause or contribute to a condition of nuisance. Part 2.3 states that permittees shall comply with these prohibitions "through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with [the Los Angeles Stormwater Quality Management Program (SQMP)] and its components and other requirements of [the LA County MS4 Permit]." Part 2.3 establishes an "iterative process" whereby certain actions are required when exceedances of water quality standards or objectives occur. This iterative process includes submitting a Receiving Water Limitations Compliance Report; revising the SQMP and its components to include modified BMPs, an implementation schedule and additional monitoring to address the exceedances; and implementing the revised SQMP. These provisions are consistent with the receiving water limitations language required by State Water Board Order WQ 99-05.

Part 2 also includes provisions implementing the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (summer dry weather provisions only). During summer dry weather, Part 2.6 prohibits discharges of bacteria from MS4s into Marina del Rey Harbor Basins D, E, or F, including Mothers' Beach that cause or contribute to exceedance of the applicable bacteria water quality objectives.

Part 2 also included similar TMDL provisions relating to the Santa Monica Bay summer dry weather bacteria TMDL. However, as a result of a legal challenge by Los Angeles County and the LACFCD, the Regional Water Board was required to void and set aside those provisions, which the Regional Water Board did in 2011.

Part 3 – Stormwater Quality Management Program (SQMP) Implementation

Under Part 3, each Permittee shall, at a minimum, implement the SQMP, which is an enforceable element of the Los Angeles County MS4 Permit. The SQMP, at a minimum, shall also comply with the applicable storm water program requirements of 40 CFR section 122.26(d)(2). The SQMP and its components shall be implemented so as to reduce the discharges of pollutants in storm water to the maximum extent practicable (MEP) and effectively prohibit non-storm water discharges to the MS4. Each Permittee shall also implement additional controls, where necessary, to reduce the discharge of pollutants from the MS4.

Part 3 also sets forth specific responsibilities of the Principal Permittee, which under Order No. 01-182 is the LACFCD, and co-permittees. In addition, Part 3 sets forth requirements for Watershed Management Committees (WMCs) which, among other tasks, prioritize pollution control efforts and evaluate the effectiveness of and recommend changes to the SQMP and its components. Each Permittee must also have the necessary legal authority to prohibit non-storm water discharges to the MS4, as well as possess adequate legal authority to develop and enforce storm water and non-storm

water ordinances for its jurisdiction.

Part 4 – Special Provisions

Part 4 sets forth provisions for public information and participation, industrial/commercial facilities control program, development planning, development construction, public agency activities, and illicit connections and illicit discharges elimination. These programs are termed "minimum control measures" and have been in place since the inception of the MS4 NPDES permitting program, as required by federal regulations.

Part 5 – Definitions

Part 5 includes definitions for terms used within Order No. 01-182.

Part 6 – Standard Provisions

Part 6 includes standard provisions relating to implementation of the programs required by the permit. Such provisions include, but are not limited to, the duty to comply, the duty to mitigate, inspection and entry requirements, proper operation and maintenance requirements, monitoring and reporting requirements, and the duty to provide information. Most of these provisions are required by 40 CFR sections 122.41 or 122.42 and apply to all NPDES permits.

Part 7 – TMDL Provisions

In 2009, Order No. 01-182 was amended to include provisions that are consistent with the assumptions and requirements of waste load allocations from the Los Angeles River Trash TMDL. Appendix 7-1 identifies the permittees subject to the Los Angeles River Trash TMDL and sets forth the interim and final numeric effluent limitations for trash that the permittees must comply with. Part 7 also sets forth how permittees can demonstrate compliance with the numeric effluent limitations. Permittees have the option to employ three general compliance strategies to achieve the numeric effluent limitations. Depending on the strategy selected, the Permittee may demonstrate compliance either by documenting the percentage of its area addressed by full capture systems ("action-based" demonstration) or by calculating its annual trash discharge to the MS4 and comparing that to its effluent limitation. This approach allows the Permittee the flexibility to comply with the numeric effluent limitations using any lawful means, and establishes appropriate and enforceable compliance metrics depending on the method of compliance and level of assurance provided by the Permittee that the selected method will achieve the numeric effluent limitations derived from the TMDL WLAs.

Attachment U – Monitoring and Reporting Program

Order No. 01-182 has both self-monitoring and public reporting requirements, which include: (1) monitoring of "mass emissions" at seven mass emission monitoring stations; (2) Water Column Toxicity Monitoring; (3) Tributary Monitoring; (4) Shoreline Monitoring; (5) Trash Monitoring; (6) Estuary Sampling; (7) Bioassessment; and (8) Special Studies. The purpose of mass emissions monitoring is to: (1) estimate the mass emissions from the MS4; (2) assess trends in the mass emissions over time; and (3) determine if the MS4 is contributing to exceedances of water quality standards by comparing results to the applicable standards in the Basin Plan. Order No. 01-182 established that the Principal Permittee shall monitor the mass emissions stations. The permit required mass emission sampling five times per year.

III. APPLICABLE STATUTES, REGULATIONS, PLANS, AND POLICIES

The provisions contained in this Order are based on the requirements and authorities described below.

A. Legal Authorities – Federal Clean Water Act and California Water Code

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It serves as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260).

B. Federal and California Endangered Species Acts

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the United States. Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.

C. California Environmental Quality Act (CEQA)

This action to adopt an NPDES Permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, § 21100, et seq.) pursuant to California Water Code section 13389. (County of Los Angeles v. Cal. Water Boards (2006) 143 Cal.App.4th 985.)

D. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The CWA requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. On June 13, 1994, the Regional Water Board adopted a *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. The Regional Water Board has amended the Basin Plan on multiple occasions since 1994. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be

considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the surface water bodies that receive discharges from the Los Angeles County MS4 generally include those listed below:

Discharge Point	Receiving Water Name	Beneficial Use(s)
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Multiple surface water bodies of the Los Angeles Region	Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PROC); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC-1); Limited Contact Recreation (LREC-1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Preservation of Areas of Special Biological Significance (BIOL); Wildlife Habitat (WILD); Preservation of Rare and Endangered Species (RARE); Marine Habitat (MAR); Wetland Habitat (WET); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)

Table F-3. Basin Plan Beneficial Uses

Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Basin Plan.

a. Permit Structure: Watershed Management Approach and Total Maximum Daily Load (TMDL) Implementation

One of the fundamental issues for this Order was a reconsideration of the basic permit structure. The previous Order, Order No. 01-182, was structured as a single permit whereby all 86 Permittees were assigned uniform requirements, with additional requirements for the Principal Permittee. Through Order No. 01-182, the Regional Water Board began to implement a Watershed Management Approach to address water quality protection in the region. The Watershed Management Approach intended to provide a comprehensive and integrated strategy toward water resource protection, enhancement, and restoration while considering economic and environmental impacts within a hydrologically defined drainage basin or watershed.

On June 12, 2006, prior to the expiration date of Order No. 01-182, all of the Permittees filed Reports of Waste Discharge (ROWD) applying for renewal of their waste discharge requirements. Specifically, the Los Angeles County Flood Control District submitted an ROWD application on behalf of itself, the County of Los Angeles, and 78 other Permittees. Several Permittees under Order No. 01-182 elected to not be included as part of the Los Angeles County Flood Control District's ROWD. On June 12, 2006, the cities of Downey and Signal Hill each submitted an individual ROWD application requesting an individual MS4 permit;

and the Upper San Gabriel River Watershed Coalition (comprised of the cities of Azusa, Claremont, Glendora, Irwindale, and Whittier) also submitted an individual ROWD application requesting a separate MS4 permit for these cities. In 2010, the LACFCD withdrew from its 2006 ROWD and submitted a new ROWD also requesting an individual MS4 permit. The LACFCD also requested that if an individual MS4 permit was not issued to it, that it no longer be designated as the Principal Permittee and that it is relieved of Principal Permittee responsibilities.

The Regional Water Board evaluated each of the 2006 ROWDs and notified all of the Permittees that their ROWDs did not satisfy federal storm water regulations contained in the USEPA Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems; Final Rule, August 9, 1996 (61 *Fed Reg.* 41697). The Regional Water Board also found that the information presented in the ROWDs did not reflect the current status of program elements for MS4 permits developed over the past decade or the new information specific to this MS4. Because each ROWD did not satisfy federal requirements, the Regional Water Board also evaluated the LACFCD's 2010 ROWD and found that it too did not satisfy federal requirements nor reflect the current status for MS4s.

Though five separate ROWDs were submitted, the Regional Water Board retains the discretion as the permitting authority to determine whether to issue permits for discharges from MS4s on a system-wide or jurisdiction-wide basis. Clean Water Act section 402(p)(3)(B)(i) and implementing regulations at 40 CFR section 122.26, subdivisions (a)(1)(v) and (a)(3)(ii), allow the permitting authority to issue permits for MS4 discharges on a system-wide or jurisdiction-wide basis taking into consideration a variety of factors. Such factors include the location of the discharge with respect to waters of the United States, the size of the discharge, the quantity and nature of the pollutants discharged to waters of the United States, and other relevant factors. Federal regulations at 40 CFR section 122.26(a)(3)(ii) identify a variety of possible permitting structures, including one system-wide permit covering all MS4 discharges or distinct permits for appropriate categories of MS4 discharges including, but not limited to, all discharges owned or operated by the same municipality, located within the same jurisdiction, all discharges within a system that discharge to the same watershed, discharges within a MS4 that are similar in nature, or for individual discharges from MS4s.

In evaluating the five separate ROWDs and the structure for this Order, the Regional Water Board considered a number of factors:

i. The nature of the Los Angeles County MS4, which is a large interconnected system, controlled in large part by the Los Angeles County Flood Control District, among others, and used by multiple cities along with Los Angeles County. The discharges from these entities frequently commingle in the MS4 prior to discharge to receiving waters.

- **ii.** The requirement to implement 33 largely watershed-based TMDLs in this Order. A number of Permittees have already established jurisdictional groups on a watershed or subwatershed basis for TMDL implementation. (See Attachment K of this Order for a matrix of these TMDLs and Permittees by Watershed Management Area (WMA)). Many of the TMDLs apply to multiple watersheds and the jurisdictional areas of multiple Permittees. Having separate permits would make implementation of the TMDLs more cumbersome.
- iii. The passage of Assembly Bill 2554 in 2010, which amended the Los Angeles County Flood Control Act. This statute allows the LACFCD to assess a parcel tax for storm water and clean water programs. Funding is subject to voter approval in accordance with Proposition 218. Fifty percent of funding is allocated to nine "watershed authority groups" to implement collaborative water quality improvement plans. (See Attachments B and C of this Order for maps of WMAs.)
- iv. Results of the on-line survey administered to Permittees by Regional Water Board staff regarding permit structure. The results indicated that a majority of Permittees support a single MS4 permit for Los Angeles County. A significant minority support multiple watershed-based permits. Overall, 85 percent of the permittees that responded to the on-line survey support either a single MS4 permit or several individual watershed-based permits. A small number of permittees support alternative groupings of adjacent municipalities instead of watershed-based groupings. Only four permittees expressed a preference for individual MS4 permits.
- v. The 2006 and 2010 ROWDs. Eight Permittees submitted individual or small group ROWDs, including the cities of Signal Hill and Downey; five cities in the upper San Gabriel River watershed; and the Los Angeles County Flood Control District. The LACFCD has also requested that if the Regional Water Board does not issue an individual permit to the LACFCD, that it is no longer designated as Principal Permittee and relieved of Principal Permittee responsibilities.

Based on an evaluation of these factors, the Regional Water Board again determined that, because of the complexity and networking of the MS4 within Los Angeles County, that one system-wide permit is appropriate. In order to provide individual Permittees with more specific requirements, this Order regulates the MS4 discharges of 86 Permittees with some sections devoted to universal requirements for all Permittees and others devoted to requirements specific to each Watershed Management Area (WMA), including TMDL implementation provisions. This structure is supported by section 402(p) of the Clean Water Act and 40 CFR sections 122.26, subdivisions (a)(1)(v) and (a)(3)(ii). A single permit will ensure consistency and equitability in regulatory requirements within Los Angeles County, while watershed-based sections within the single permit will provide flexibility to tailor permit provisions to address distinct watershed based structure comports with the Regional Water Board's Watershed

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Management Initiative, its watershed-based TMDL requirements, and the LACFCD's funding initiative passed in Assembly Bill 2554. Watershed-based sections will help promote watershed-wide solutions to address water quality problems, which in many cases are the most efficient and cost-effective means to address storm water and urban runoff pollution. Further, watershed-based sections may encourage collaboration among permittees to implement regional integrated water resources approaches such as storm water capture and re-use to achieve multiple benefits.

The Regional Water Board determined that the cities of Signal Hill and Downey, the five upper San Gabriel River cities, and the LACFCD are included as Permittees in this Order. Individually tailored permittee requirements are provided in this Order, where appropriate. The Regional Water Board also determined that as the primary owner and operator of the Los Angeles County MS4, the LACFCD should remain a Permittee in the single-system wide permit; however, this Order relieves LACFCD of its role and responsibilities as Principal Permittee. This Order also specifies certain requirements specific to the LACFCD in its role as the owner and operator of the Los Angeles County MS4.

2. Ocean Plan. In 1972, the State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan). The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Discharge Point	Receiving Water Name	Beneficial Use(s)
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Pacific Ocean	Industrial Water Supply (IND); Water Contact (REC- 1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)

3. Antidegradation Policy. 40 CFR section 131.12⁴ requires that the state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Resolution No. 68-16 and 40 CFR section 131.12 require the Regional Water Board to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Water Board's policies. Resolution 68-16 requires that discharges of waste be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained.

The discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR section 131.12 and Resolution 68-16. Many of the water bodies within the area covered by this Order are of high quality. The Order requires the Permittees to meet best practicable treatment or control to meet water quality standards. As required by 40 CFR section 122.44(a), the Permittees must comply with the "maximum extent practicable" technology-based standard set forth in CWA

⁴ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

section 402(p). Many of the waters within the area covered by this Order are impaired and listed on the State's CWA Section 303(d) List and either the Regional Water Board or USEPA has established TMDLs to address the impairments. This Order requires the Permittees to comply with permit provisions to implement the WLAs set forth in the TMDLs in order to restore the beneficial uses of the impaired water bodies consistent with the assumptions and requirements of the TMDLs. This Order includes requirements to develop and implement storm water management programs, achieve water quality-based effluent limitations, and effectively prohibit non-storm water discharges through the MS4.

The issuance of this Order does not authorize an increase in the amount of discharge of waste. The Order is more stringent than the previous Order because it includes requirements to implement WLAs assigned to Los Angeles County MS4 discharges that have been established in 33 TMDLs, most of which were not included in the previous Order.

4. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations or other conditions in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations or conditions may be relaxed. All effluent limitations and other conditions (e.g. storm water management program minimum control measures, monitoring) in this Order are at least as stringent as the effluent limitations and conditions in the previous permit.

E. Impaired Water Bodies on CWA section 303(d) List

Section 303(d)(1) of the CWA requires each state to identify specific water bodies within its boundaries where water quality standards are not being met or are not expected to be met after implementation of technology-based effluent limitations on point sources. Water bodies that do not meet water quality standards are considered impaired and are placed on the state's "303(d) List". Periodically, USEPA approves the State's 303(d) List. Most recently, USEPA approved the State's 2010 303(d) List of impaired water bodies on October 11, 2011, which includes certain receiving waters in the Los Angeles region. For each listed water body, the state or USEPA is required to establish a total maximum daily load (TMDL) of each pollutant impairing the water quality standards in that water body. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable pollutant loadings for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a water body to meet water quality standards. A TMDL is the sum of the allowable pollutant loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety. (40 CFR section 130.2(i).) MS4 discharges are considered point source discharges. For 303(d)-listed water bodies and pollutants in the Los Angeles Region, the Regional Water Board or USEPA develops and adopts TMDLs that specify these requirements.

Over the last decade, the Regional Water Board and USEPA have established 33 TMDLs to remedy water quality impairments in various water bodies within Los Angeles County. (See Attachment K of this Order for a list of TMDLs by Watershed Management Area for Los Angeles County.) These TMDLs identify MS4 discharges as a source of pollutants to these water bodies and, as required, establish WLAs for MS4 discharges to reduce the amount of pollutants discharged to receiving waters. Federal regulations require that NPDES permits contain effluent limits consistent with the assumptions and requirements of all available WLAs (40 CFR § 122.44(d)(1)(vii)(B)). Therefore, this Order includes effluent limitations and other provisions to implement the TMDL WLAs assigned to permittees regulated by the LA County MS4 Permit.

The Regional Water Board has previously established numeric effluent limitations to implement TMDL WLAs when it reopened Order No. 01-182 in 2009 to incorporate permit provisions to implement the Los Angeles River Watershed Trash TMDL WLAs. In that case, Permittees have the option to employ three general compliance strategies to achieve the numeric effluent limitations. Depending on the strategy selected, the Permittee may demonstrate compliance either by documenting the percentage of its area addressed by full capture systems ("action-based" demonstration) or by calculating its annual trash discharge to the MS4 and comparing that to its effluent limitation. This approach allows the Permittee the flexibility to comply with the numeric effluent limitations using any lawful means, and establishes appropriate and enforceable compliance metrics depending on the method of compliance and level of assurance provided by the Permittee that the selected method will achieve the numeric effluent limitations derived from the TMDL WLAs. A similar approach is used for the 32 other TMDLs incorporated into this Order, where appropriate.

F. Other Plans, Policies and Regulations

This Order implements all other applicable federal regulations and State plans, policies and regulations, including the California Toxics Rule at 40 CFR section 131.38.

IV. RATIONALE FOR DISCHARGE SPECIFICATIONS

A. Discharge Prohibitions – Non-Storm Water Discharges

1. Regulatory Background

The CWA employs the strategy of prohibiting the discharge of any pollutant from a point source into waters of the United States unless the discharger of the pollutant(s) obtains an NPDES permit pursuant to CWA section 402. The 1987 amendment to the CWA included section 402(p) that specifically addresses NPDES permitting requirements for municipal discharges from MS4s. Section 402(p) prohibits the discharge of pollutants from specified MS4s to waters of the United States except as authorized by an NPDES permit and identifies the substantive standards for MS4 permits. MS4 permits (1) "shall include a requirement to effectively prohibit non-stormwater discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering

methods, and [ii] such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." (CWA § 402(p)(3)(B)(ii-iii).)

On November 16, 1990, USEPA published regulations to implement the 1987 amendments to the CWA. (55 Fed. Reg. 47990 et seq. (Nov. 16, 1990)). The regulations establish minimum requirements for MS4 permits. The regulations address both storm water and non-storm water discharges from MS4s; however, the minimum requirements for each are significantly different. This is evident from USEPA's preamble to the storm water regulations, which states that "Section 402(p)(B)(3) [of the CWA] requires that permits for discharges from municipal separate storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal storm sewer ... Ultimately, such non-storm water discharges through a municipal separate storm sewer system must either be removed from the system or become subject to an NPDES permit" (55 Fed. Reg. 47990, 47995 (Nov. 16, 1990).⁵ USEPA states that MS4 Permittees are to begin to fulfill the "effective prohibition of non-storm water discharges" requirement by: (1) conducting a screening analysis of the MS4 to provide information to develop priorities for a program to detect and remove illicit discharges, (2) implementing a program to detect and remove illicit discharges, or ensure they are covered by a separate NPDES permit, and (3) to control improper disposal into the storm sewer. (40 CFR § 122.26(d)(2)(iv)(B).) These non-storm water discharges therefore are not subject to the MEP standard.

"Illicit discharges" defined in the regulations is the most closely applicable definition of "non-storm water" contained in federal law and the terms are often used interchangeably. In fact, "illicit discharge" is defined by USEPA in its 1990 rulemaking, as "any discharge through a municipal separate storm sewer that is not composed entirely of storm water and that is not covered by an NPDES permit [other than the permit for the discharge from the MS4] (55 *Fed. Reg.* 47990, 47995).

2. Definition of Storm Water and Non-Storm Water

Federal regulations define "storm water" as "storm water runoff, snow melt runoff, and surface runoff and drainage." (40 C.F.R. § 122.26(b)(13).) While "surface runoff and drainage" is not defined in federal law, USEPA's preamble to the federal regulations demonstrates that the term is related to precipitation events such as rain and/or snowmelt. (55 *Fed. Reg.* 47990, 47995-96 (Nov. 16, 1990)). For example, USEPA states: "In response to the comments [on the proposed rule] which requested EPA to define the term 'storm water' broadly to include a number of classes of discharges which are not in any way related to precipitation events, EPA believes that this rulemaking is not an appropriate forum for addressing the appropriate regulation under the NPDES program of such non-storm water discharges Consequently, the final definition of storm water has not been expanded from what was proposed." (*Ibid.*) The storm water regulations themselves identify numerous categories of discharges including landscape irrigation, diverted

⁵ USEPA further states that, "[p]ermits for such [non-storm water] discharges must meet applicable technology-based and water-quality based requirements of Sections 402 and 301 of the CWA" (55 Fed. Reg. 47990, 48037 (Nov. 16, 1990).

stream flows, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, and street wash water as "non-storm water." While these types of discharges may be regulated under storm water permits, they are not considered storm water discharges. (40 CFR § 122.26(d)(2)(iv)(B)). USEPA states that, "in general, municipalities will not be held responsible for prohibiting some specific components of discharges or flows ... through their municipal separate storm sewer system, even though such components may be considered non-storm water discharges..." (emphasis added). However, where certain categories of non-storm water discharges are identified by the Permittee (or the Regional Water Board) as needing to be addressed, they are no longer exempt and become subject to the effective prohibition requirement in CWA section 402(p)(3)(B)(ii). This review of the storm water regulations and USEPA's discussion of the definition of storm water in its preamble to these regulations strongly supports the interpretation that storm water includes only precipitation-related discharges. Therefore, non-precipitation related discharges are not storm water discharges and, therefore, are not subject to the MEP standard in CWA section 402(p)(3)(B)(iii). Rather, non-storm water discharges shall be effectively prohibited pursuant to CWA section 402(p)(3)(B)(ii).

3. Non-Storm Water Regulation

Non-storm water discharges from the MS4 that are not authorized by separate NPDES permits, nor specifically exempted, are subject to requirements under the NPDES program, including discharge prohibitions, technology-based effluent limitations and water quality-based effluent limitations (40 CFR § 122.44). USEPA's preamble to the storm water regulations also supports the interpretation that regulation of non-storm water discharges through an MS4 is not limited to the MEP standard in CWA section 402(p)(3)(B)(iii):

"Today's rule defines the term "illicit discharge" to describe any discharge through a municipal separate storm sewer system that is not composed entirely of storm water and that is not covered by an NPDES permit. Such illicit discharges are not authorized under the Clean Water Act. Section 402(p(3)(B) requires that permits for discharges from municipal separate storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal separate storm sewer...Ultimately, such non-storm water discharges through a municipal separate storm sewer must either be removed from the system or become subject to an NPDES permit." (55 Fed. Reg. 47990, 47995.)

In its 1990 rulemaking, USEPA explained that the illicit discharge detection and elimination program requirement was intended to begin to implement the Clean Water Act's provision requiring permits to "effectively prohibit non-storm water discharges."

4. Authorized and Conditionally Exempt Non-Storm Water Discharges

ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

The previous permit, Order No. 01-182, contained provisions exempting several categories of non-storm water discharges from the discharge prohibition, including discharges covered by a separate individual or general NPDES permit for non-storm water discharges, natural flows, flows from emergency fire fighting activity, and flows incidental to urban activities. This Order retains these same categories, but with several enhancements. Natural flows specified in this Order include natural springs and rising ground water; flows from riparian habitats and wetlands; diverted stream flows authorized by the State or Regional Water Board; and uncontaminated ground water infiltration. Flows incidental to urban activities specified in this Order include landscape irrigation; dechlorinated/debrominated swimming pool discharges; dewatering of lakes and decorative fountains; non-commercial car washing by residents or by non-profit organizations; and street/sidewalk washwater. This Order separately identifies flows from non-emergency fire fighting activities and discharges from potable water sources as "essential" non-storm water discharges rather than combining them into the same category as the other non-storm water discharges incidental to urban activities. In doing so, the Regional Water Board recognizes that these discharges are essential public service discharge activities and are directly or indirectly required by other state or federal statute and/or regulation. This Order continues to unconditionally exempt emergency fire fighting discharges from the discharge prohibition.

Like Order No. 01-182, this Order contains a provision that the Regional Water Board Executive Officer may add or remove categories of exempt non-storm water discharges. In addition, in the event that any of the categories of non-storm water discharges are determined to be a source of pollutants by the Executive Officer then the discharges will no longer be exempt unless the Permittee implements conditions approved by the Executive Officer to ensure that the discharge is not a source of pollutants. Also the Executive Officer may impose additional prohibitions of nonstorm water discharges in consideration of antidegradation policies and TMDLs.

5. BMPs for Non-Storm Water Discharges

In this Order, no changes have been made to the types of non-storm water discharges included in the non-storm water discharge prohibition exemptions, with one exception. However, the non-storm water discharge provisions in this Order have been reworded to clarify the requirements for addressing authorized and conditionally exempt non-storm water discharges that are not prohibited. In particular, language has been added to explicitly identify State and Regional Water Board permits that are applicable to some of the exempted non-storm water discharges. The State and Regional Water Board general permits referenced in this Order and their applicability to the different types of non-storm water discharges that are routinely discharged through the MS4 is contained in Table F-4 below.

Table F-4. State and Regional Water Board General Permits Referenced in this Permit

Order/NPDES Permit No.	Applicable Types of Discharges
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Order/NPDES Permit No.	Applicable Types of Discharges	
NPDES Permit No. CAG994003 – Discharges of Nonprocess Wastewater to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	 Ground water seepage Uncontaminated pumped ground water Gravity flow from foundation drains, footing drains, and crawl space pumps Air conditioning condensate Discharges of cleaning wastewater and filter backwash 	
NPDES Permit No. CAG994004 – Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	 Uncontaminated pumped ground water Discharges from activities that occur at wellheads, such as well construction, well development (e.g., aquifer pumping tests, well purging), or major well maintenance Gravity flow from foundation drains, footing drains, and crawl space pumps Discharges of ground water from construction and project dewatering⁶ 	
NPDES Permit No. CAG990002 – Discharges from Utility Vaults and Underground Structures to Surface Waters	 Uncontaminated pumped ground water Gravity flow from foundation drains, footing drains, and crawl space pumps 	
NPDES Permit No. CAG674001 – Discharges From Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	 Discharges of low threat hydrostatic test water⁷ 	

⁶ Discharges of ground water from construction and project dewatering include treated or untreated wastewater from permanent or temporary construction dewatering operations; ground water pumped as an aid in the containment and/or cleanup of a contaminant plume; ground water extracted during short-term and long-term pumping/aquifer tests; ground water generated from well drilling, construction or development and purging of wells; equipment decontamination water; subterranean seepage dewatering; incidental collected storm water from basements; and other process and non-process wastewater discharges that meet the eligibility criteria and could not be covered under another specific general NPDES permit.

⁷ Low threat hydrostatic test water means discharges resulting from the hydrostatic testing or structural integrity testing of pipes, tanks, or any storage vessels using domestic water or from the repair and maintenance of pipes, tanks, or reservoirs.

Order/NPDES Permit No.	Applicable Types of Discharges	
NPDES Permit No. CAG914001 – Discharges of Treated Groundwater from Investigation and/or Cleanup of Volatile Organic Compounds Contaminated-Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	 Discharges of treated ground water from investigation and/or cleanup of volatile organic compound (VOC) contaminated sites 	
NPDES Permit No. CAG994005 – Discharges of Ground Water from Water Supply Wells to Surface Waters in Los Angeles and Ventura Counties	 Discharges of ground water from potable water supply wells⁸ 	
NPDES Permit No. CAG834001 – Waste Discharge Requirements for Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Petroleum Fuel- Contaminated Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	 Discharges of treated ground water and other waste waters from investigation and/or cleanup of petroleum fuel contaminated sites 	

This Order explicitly adds another category of authorized non-storm water discharge for discharges authorized by USEPA pursuant to sections 104(a) or 104(b) of the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). These discharges typically consist of short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or USEPA or State-required compliance testing of potable water treatment plants, as part of a USEPA authorized groundwater remediation action under CERCLA. These discharges through the MS4 are only authorized if: (i) the discharge will comply with water quality standards identified as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA; or (ii) the discharge is subject to either (a) a written waiver of ARARs by USEPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation, pursuant to 40 CFR section 300.415(j). Additionally, a decision to authorize a discharge through the MS4 to surface waters will not be made by USEPA without first conducting a comprehensive evaluation of containment, treatment, reinjection, or re-use options for the water generated from the subject wells. If a decision to discharge through the MS4 is made, USEPA's authorization of the discharge under CERCLA will require that the discharger shall:

⁸ Discharges covered by this permit include ground water from potable water supply wells generated during the following activities: ground water generated during well purging for data collection purposes; ground water extracted from major well rehabilitation and redevelopment activities; and ground water generated from well drilling, construction, and development.

- (1) Implement BMPs to minimize the rate and duration of the discharge and remove excessive solids, and implement other on-site physical treatment where feasible.
- (2) Promote infiltration of discharged water in locations that will prevent or minimize degradation of groundwater quality.
- (3) Notify the affected MS4 Permittees, including the LACFCD and the MS4 Permittee with land use authority over the discharge location, and the Regional Water Board at least one week prior to a planned discharge (unless USEPA determines in writing that exigent circumstances require a shorter notice period) and as soon as possible (but no later than 24 hours after the discharge has occurred) for unplanned discharges;
- (4) Monitor any pollutants of concern in the discharge⁹; and
- (5) Maintain records for all discharges greater than one acre-foot.¹⁰

In addition to requiring NPDES permit coverage for applicable categories of nonstorm water discharges, this Order contains language that specifies certain conditions, including implementation of BMPs, for each category of conditionally exempt non-storm water discharge that must be met in order for the non-storm water discharge to be exempted from the non-storm water prohibition and thus allowed through the MS4.

The California Recycled Water Policy, adopted by the State Water Board in Resolution No. 2009-0011, calls for an increase in the use of recycled water from municipal wastewater sources that meet the definition in California Water Code section 13050(n), in a manner that implements state and federal water quality laws. In support of the California Recycled Water Policy, a provision has been added requiring that alternative means of disposal or opportunities for capture, reclamation, and reuse must be evaluated prior to discharging any of the non-storm water discharge categories to the MS4. In addition, to ensure the protection of receiving water quality all non-storm water discharges must be segregated from potential sources of pollutants to prevent the introduction of pollutants to the discharge.

In establishing provisions specific to different non-storm water discharge types, the Regional Water Board reviewed non-storm water discharge provisions and BMPS included in other area MS4 permits. MS4 permits reviewed included the Ventura

⁹ Pollutants of concern include, at a minimum, trash and debris, including organic matter, TSS, any pollutant being addressed by the groundwater remediation action under CERCLA, and any pollutant for which there is a Water Quality Based Effluent Limitation in Part VI.E applicable to discharges from the MS4 to the receiving water.

¹⁰ Records shall be maintained, as appropriate, on the: name of CERCLA authorized discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, estimated total number of gallons discharged, type of pollutant removal equipment used, type of dechlorination equipment used if applicable, type (s) of sediment controls used, and field and laboratory monitoring data. Records shall be retained for three years, unless the Regional Water Board requests a longer record retention period and shall be made available upon request by the MS4 Permittee or the Regional Water Board.

County MS4 permit (R4-2009-0057), the Orange County MS4 permit (Order No. R9-2009-0002), the Riverside County MS4 permit (R9-2010-0016), and the San Diego County MS4 permit (R9-2007-0001). Conditions established in this permit for each of the non-storm water discharge categories ensure the protection of receiving water quality and are considered common practices.

Dischargers permitted under NPDES Permit No. CAG990002 are required to contact the appropriate Permittee(s) with jurisdiction over the MS4, including but not limited to the Los Angeles County Flood Control District, within 24 hours, whenever there is a discharge of 50,000 gallons or more from utility vaults and underground structures to the MS4. This MS4 notification requirement for dischargers of uncontaminated pumped groundwater permitted under NPDES Permit No. CAG990002 has been added to this iteration of the permit to ensure that Permittees are aware of the requirement and can monitor the discharge to the MS4 as appropriate.

The conditions for landscape irrigation have been split into potable and reclaimed landscape irrigation categories. As identified in the Orange County MS4 permit incidental runoff from landscape irrigation projects including over irrigation and overspray have the potential to contribute landscape derived pollutants such as bacteria, nutrients, and pesticides to receiving waters. In addition, the California Recycled Water Policy identifies the need for control of incidental runoff from landscape irrigation projects, particularly as it relates to recycled water use. The BMPs incorporated into the permit for potable landscape irrigation ensure that water is conserved, overspray and over irrigation causing incidental runoff is minimized, and exposure to landscape related pollutants is minimized.

State Water Board Water Quality Order No. 2009-0006-DWQ, General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water, is a general permit for producers and distributors of recycled water for landscape irrigation uses. As part of this general permit, the producers and distributors of recycled water for landscape irrigation are required to develop an Operations and Maintenance Plan (O&M Plan) that includes an Operations Plan and an Irrigation Management Plan. Therefore, any reclaimed landscape irrigation discharges to the MS4 must comply with the relevant portion of the O&M Plan including the Irrigation Management Plan. By explicitly referencing the O&M requirement in this permit, it centralizes the requirements for reclaimed landscape irrigation and helps to ensure that procedures are in place for conserving water, minimizing incidental runoff, and minimizing exposure to landscape related pollutants.

Non-storm water discharge provisions have been added for the dewatering of lakes to the MS4. The provisions for the dewatering of lakes including removing and legally disposing of all visible trash on the shoreline or on the surface of the lake and the cleaning of the MS4 inlet and outlet where the water will be discharged to the receiving water have been consistently incorporated into Regional Water Board authorizations to discharge non-storm water from lakes, reservoirs, and ponds. In addition provisions for volumetrically and velocity controlling discharges as well as taking measurements to stabilize lake bottom sediments are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level. The permit provisions for the dewatering of lakes ensure the protection of receiving water quality.

Basin plan requirements for residual chlorine have been explicitly included in the conditions for potable drinking water supply and distribution system releases, dechlorinated/debrominated swimming pool/spa discharges, and dewatering of decorative fountains. Related to swimming pool discharges, discharges of cleaning wastewater and filter backwash are specifically mentioned as being allowed only if authorized under a separate NPDES permit. The Regional Water Board has a general permit for discharges of nonprocess wastewater to surface waters in coastal watersheds of Los Angeles and Ventura counties (NPDES Permit No. CAG994003) that may address discharges of cleaning wastewater and filter backwash.

Specific BMPs for discharges of swimming pools/spas and the dewatering of decorative fountains have been added to this Order including prohibiting the dewatering of swimming pools/spas or decorative fountains containing copper-based algaecides and requiring the implementation of controls to prevent introduction of pollutants prior to discharge. Swimming pool/spa discharges and decorative fountain water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate and if necessary shall be pH adjusted to within the range of 6.5 and 8.5. The MS4 inlet and outlet must be inspected and cleaned out immediately prior to discharge to protect receiving water quality. In addition provisions for volumetrically and velocity controlling discharges are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level.

In addition to the specific inclusion of Basin Plan water quality objectives for residual chlorine, this Order allows discharges of potable drinking water supply and distribution system releases as long as specified BMPs are implemented. BMPs must be implemented to prevent introduction of pollutants to potable water releases prior to discharge to the receiving water. BMPs must be consistent with the American Water Works Association (California – Nevada Section) BMP Manual for Drinking Water System Releases and other applicable guidelines. Similar to discharges of swimming pools/spas and dewatering of decorative fountains, potable drinking water supply releases must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate and if necessary shall be pH adjusted to within the range of 6.5 and 8.5. The MS4 inlet and outlet must be inspected and cleaned out immediately prior to discharge to protect receiving water guality. BMPs such as sand bags or gravel bags, or other appropriate means shall be utilized to prevent sediment transport and all sediment shall be collected and disposed of in a legal and appropriate manner. In addition provisions for volumetrically and velocity controlling discharges are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level.

The permit provisions for potable drinking water supply and distribution system releases, dechlorinated/debrominated swimming pool/spa discharges, and dewatering of decorative fountains ensures the protection of receiving water quality.

The Regional Water Board evaluated and established a list of approved BMPs for various programs and activities through Regional Water Board Resolution 98-08 that serves as appropriate BMPs for inclusion in the Discharger and Permittees' regulatory programs. Requirements for street/sidewalk wash water contained in Resolution 98-08 have also been explicitly incorporated into this Order. The inclusion of the requirements contained in Resolution 98-08 helps to ensure that Permittees are aware of the requirements and ensures the protection of receiving water quality.

Specific BMPs for discharges from non-commercial car washing have been incorporated into this Order to prevent the introduction of pollutants prior to discharge. BMPs that must be implemented for the discharge of non-commercial vehicle wash water include minimizing the amount of water used by turning off nozzles or kinking the hose when not spraying a vehicle and by using a pressure washer; using biodegradable, phosphate free detergents and non-toxic cleaning products; where possible, washing vehicles on permeable surfaces where wash water can percolate into the ground; creating a temporary berm or block off the storm drains; using pumps or vacuums to direct water to pervious areas; and emptying buckets of soapy water or rinse water into the sanitary sewer system. These BMPs are common practice and ensure the protection of receiving water quality.

The inclusion of conditions for flows related to non-emergency fire-fighting activities is new to this iteration of the permit. Conditions for discharges related to fire fighting activities have been incorporated into other MS4 permits including both Orange County and Riverside County. Flows resulting from emergency fire fighting activities necessary for the protection of life or property do not require implementation of specific BMPs.

The specific BMPs for discharges associated with non-emergency fire fighting activities that have been incorporated into this Order have been incorporated into other California MS4 permits. Both the Riverside County and Orange County MS4 permits require the development and implementation of a program to address pollutants from non-emergency fire fighting flows. Rather than develop a program to address non-emergency fire fighting flows, common BMPs used in association with non-emergency fire fighting discharges have been incorporated into this Order. Guidance on BMPs contained in this Order for non-emergency fire fighting activities is available in the Best Management Practices Plan for Urban Runoff Management for Participating Riverside County Fire Fighting Agencies.

The inclusion of specific conditions for exempted non-storm water discharges in this Order centralizes the requirements for non-storm water discharges. Conditions established in this permit for each of the conditionally exempt non-storm water discharge categories are common practice and have been incorporated into other area MS4 permits.

6. Permittee Requirements for Non-Storm Water Discharges

This Order includes specific requirements for Permittees related to more targeted screening of MS4 outfalls for non-storm water discharges, and monitoring and evaluation of significant non-storm water discharges. Permittees are required to develop and implement procedures to ensure that all conditions required for conditionally exempt non-storm water discharges are being implemented. These requirements also help to clarify the responsibilities of the Permittees versus the responsibilities of the non-MS4 Permittee dischargers to the MS4. The development and implementation of these procedures helps to ensure compliance with the nonstorm water discharge prohibition and ensure that the non-storm water discharges are not sources of pollutants.

B. Technology-Based Effluent Limitations

Section 301(b)(1)(A) of the CWA and 40 CFR section 122.44(a) require that NPDES permits include technology based effluent limitations.¹¹ In 1987, the CWA was amended to require that municipal storm water discharges "reduce the discharge of pollutants to the maximum extent practicable." (CWA § 402(p)(3)(B)(iii).) The "maximum extent practicable" (MEP) standard is the applicable federal technology based standard that MS4 owners and operators must attain to comply with their NPDES permits.¹² The corresponding regulatory provisions that further detail the MEP standard can be found in 40 CFR sections 122.26(d)(2)(iv) and 122.44(k)(2).

Neither Congress nor the USEPA has specifically defined the term "maximum extent practicable." Rather, the MEP standard is a flexible and evolving standard. Congress established this flexible MEP standard so that administrative bodies would have "the tools to meet the fundamental goals of the Clean Water Act in the context of storm water pollution."¹³ This standard was designed to allow permit writers flexibility to tailor permits to the site-specific nature of MS4s and to use a combination of pollution controls that may be different in different permits.¹⁴ The MEP standard is also expected to evolve in light of programmatic improvements, new source control initiatives, and technological advances that serve to improve the overall effectiveness of storm water management programs in reducing pollutant loading to receiving waters. This is consistent with USEPA's interpretation of storm water management programs. As explained by USEPA in its 1990 rulemaking, "EPA anticipates that storm water management programs will evolve and mature over time" (55 Fed. Reg. 47990, 48052 (Nov. 16, 1990)). There is ample evidence of this evolution in storm water management. Two local examples include the development of full capture trash control devices in response to the Los Angeles Region Trash TMDLs, and the development of innovative media filters for use

¹¹ A technology based effluent limitation is based on the capability of a model treatment method to reduce a pollutant to a certain concentration (NPDES Permit Writer's Manual, Appendix A). Technology based requirements represent the minimum level of control that must be imposed in a permit issued under CWA § 402.

Note that the MEP standard only applies to storm water discharges from the MS4. Non-storm water discharges are subject to a different standard – specifically, non-storm water discharges through the MS4 must be effectively prohibited. ¹³ Building Industry Ass'n of San Diego County v. State Water Resources Control Board, 124 Cal. App. 4th 866, 884 (2004).

¹⁴ In re City of Irving, Texas, Municipal Storm Sewer System, (July 16, 2001), 10 E.A.D. 111 (E.P.A.), *6.

in outfalls at the Boeing Santa Susana Field Laboratory that have potential municipal applications.

To provide clarification to the Regional Water Boards, the State Water Board's Office of Chief Counsel issued a memorandum dated February 11, 1993 regarding the "Definition of 'Maximum Extent Practicable". In the memorandum, the State Water Board interpreted the MEP standard to entail "a serious attempt to comply," and that under the MEP standard, "practical solutions may not be lightly rejected." The memorandum states, "[i]n selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to *the maximum extent practicable*. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive." The memorandum further states that, "[a]fter selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented."

This Order includes programmatic requirements in six areas pursuant to 40 CFR section 122.26(d)(2)(iv) as well as numeric design standards for storm water runoff from new development and redevelopment consistent with the federal MEP standard (see State Water Board Order WQ 2000-11, the "LA SUSMP Order"). This Order also includes protocols for periodically evaluating and modifying or adding control measures, consistent with the concept that MEP is an evolving and flexible standard.

This Order also provides for the use of municipal action levels ("MALs") derived from the National Stormwater Quality Database (NSQD), as a means of evaluating the overall effectiveness of a Permittee's storm water management program in reducing pollutant loads from a particular drainage area and in order to assess compliance with the MEP standard. Finally, this Order includes BMP Performance Standards derived from the International BMP Database as a guide for BMP selection and design, and as a tool for evaluating the effectiveness of individual post-construction BMPs in reducing pollutant loads and assessing compliance with the MEP standard. USEPA recommends the use of numeric benchmarks for BMPs to estimate BMP effectiveness and as triggers for taking additional actions such as evaluating the effectiveness of individual BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.¹⁵

C. Water Quality-Based Effluent Limitations (WQBELs)

In addition to requiring that MS4 permits include technology based requirements consistent with the MEP standard, section 402(p)(3)(B)(iii) of the CWA authorizes the inclusion of "such other provisions as the Administrator or the State determines appropriate for the control of [] pollutants."¹⁶ This requirement gives USEPA or the State

¹⁵ See USEPA November 22, 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs."

¹⁶ The first and second iterations of the Los Angeles County MS4 Permit relied solely upon requirements consistent with the MEP standard to work toward achieving water quality standards. Note that the MEP standard is distinct from a water quality based standard; each has a different basis. Therefore, while from a practical point of view, the goal of all MS4 permit conditions is to control pollutants in discharges to ultimately achieve certain water quality outcomes, water quality based

permitting authority discretion to determine what permit conditions are necessary to control pollutants. Generally, permit requirements designed to achieve water quality standards are referred to as water quality based effluent limitations (WQBELs). A WQBEL is a restriction on the quantity or concentration of a pollutant that may be discharged from a point source into a receiving water that is necessary to achieve an applicable water quality standard in the receiving water.¹⁷ WQBELs may be expressed narratively or numerically.

In its Phase I Stormwater Regulations, Final Rule, USEPA elaborated on these requirements, stating that, "permits for discharges from municipal separate storm sewer systems must require controls to reduce the discharge of pollutants to the maximum extent practicable, and where necessary water quality-based controls" (see 55 Fed. Reg. 47990, 47994 (Nov. 16, 1990). In December 1999, USEPA reiterated in its Phase II Stormwater Regulations, Final Rule that MS4 "permit conditions must provide for attainment of applicable water quality standards (including designated uses), allocations of pollutant loads established by a TMDL, and timing requirements for implementation of a TMDL."¹⁸ The State Water Board has affirmed that MS4 permits must include requirements necessary to achieve compliance with the applicable technology based standard of MEP and to achieve water quality standards.¹⁹

WQBELs are required for point source discharges that have the reasonable potential to cause or contribute to an excursion of water quality standards and technology based effluent limitations or standards are not sufficient to achieve water quality standards.²⁰

The State Water Board has previously concluded that sole reliance in MS4 permits on BMP based requirements is not sufficient to ensure attainment of water quality standards (see State Water Board Order 2001-015). The Regional Water Board concurs with this conclusion. This conclusion is amply supported by Regional Water Board and USEPA established TMDLs for impaired waters in the Los Angeles Region, indicating that MS4 discharges are a continuing source of pollutants to the impaired receiving waters notwithstanding the implementation of storm water management programs that have been driven by the MEP standard by Permittees for the last two decades.

In this Order, WQBELs are included where the Regional Water Board has determined that discharges from the MS4 have the reasonable potential to cause or contribute to an excursion above water quality standards.²¹ Reasonable potential can be demonstrated in several ways, one of which is through the TMDL development process. Where a point source is assigned a WLA in a TMDL, the analysis conducted in the development of the TMDL provides the basis for the Regional Water Board's determination that the discharge has the reasonable potential to cause or contribute to an exceedance of

- ¹⁹ See, e.g., State Water Board Order WQ 2001-15.
- ²⁰ 40 CFR §§ 122.44(d)(1)(i); 122.44(d)(1)(iii)

standards are directly derived from this desired outcome, while the MEP standard is anticipated to be a way of working toward the desired outcome, but is not directly derived from it,

¹⁷ See 40 CFR § 122.2; NPDES Permit Writer's Manual, Appendix A. A WQBEL is distinguished from a technology based effluent limitation (TBEL) in that the basis for the WQBEL is the applicable water quality standard for the receiving water, while the basis for the TBEL is generally the performance of the best available technology.

¹⁸ See, e.g., Phase II Stormwater Regulations, Final Rule, 64 Fed. Reg. 68722, 68737.

²¹ 40 CFR §§ 122.44(d)(1)(i)-(iii); 122.44(d)(1)(vii)(B)

water quality standards in the receiving water. This approach is affirmed in USEPA's Permit Writer's Manual, which states, "[w]here there is a pollutant with a WLA from a TMDL, a permit writer must develop WQBELs." Therefore, WQBELs are included in this Order for all pollutants for which a WLA is assigned to MS4 discharges.

Federal regulations further require that, "when developing water quality-based effluent limits...the permitting authority shall ensure that effluent limits ... are consistent with the assumptions and requirements of any available wasteload allocation for the discharge..." (40 CFR § 122.44(d)(1)(vii)(B)).

The Regional Water Board interprets this to mean that the final WQBEL must be expressed in similar terms as the underlying WLA; for example, where a TMDL includes WLAs for MS4 discharges that provide numeric pollutant load objectives, the WLA should be translated into numeric WQBELs in the permit, and at a level to achieve the same expected water quality outcome. USEPA also recommends the use of numeric WQBELs to meet water quality standards where MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion. Numeric WQBELs will help clarify MS4 permit requirements and improve accountability in this permit term.

While BMPs²² are central to MS4 permits, permit requirements may only rely upon BMP based limitations in lieu of water quality based effluent limitations if: (1) the BMPs are adequate to achieve water quality standards, and (2) numeric effluent limitations are infeasible.²³ As discussed earlier, the State and Regional Water Boards have concluded that sole reliance on MEP based permit requirements is not sufficient to ensure the achievement of water quality standards. Further, there is insufficient data and information available at this time on the prospective implementation of BMPs throughout Los Angeles County to provide the Regional Water Board reasonable assurance that the BMPs would be sufficient to achieve the WQBELs.²⁴

Regarding the feasibility of numeric effluent limitations, the Regional Water Board concludes that numeric WQBELs are feasible. While a lack of data may have hampered the development of numeric effluent limitations for MS4 discharges in earlier permit cycles, in the last decade, 33 TMDLs have been developed for water bodies in Los Angeles County in which WLAs are assigned to MS4 discharges. In each case, part of the development process entailed analyzing pollutant sources and allocating loads using empirical relationships or modeling approaches. As a result, it is possible to use these numeric WLAs to derive numeric WQBELs for MS4 discharges. USEPA has also acknowledged that its expectations regarding the application of numeric WQBELs to

²² Note that best management practices and effluent limitations are two different types of permit requirements (see 40 CFR §§ 122.2; 122.44(k), which distinguish the two terms and describe their relationship to each other).

²³ 40 CFR §§ 122.44(d)(1); 122.44(k)(3); see also State Water Board Order 91-03; Memorandum from Elizabeth Miller Jennings, Office of Chief Counsel to Bruce Fujimoto, Division of Water Quality, "Municipal Storm Water Permits: Compliance with Water Quality Objectives," October 3, 1995.

with Water Quality Objectives," October 3, 1995. ²⁴ USEPA states in its 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" that, "[w]hen a non-numeric water qualitybased effluent limit is imposed, the permit's administrative record, including the fact sheet when one is required, needs to support that the BMPs are expected to be sufficient to implement the WLA in the TMDL," citing 40 CFR §§ 124.8, 124.9, and 124.18. See also USEPA's 2010 memorandum revising the 2002 memorandum.

municipal storm water discharges have changed as the storm water permit program has continued to mature over the last decade.²⁵

The inclusion of numeric WQBELs is also consistent with the Ninth Circuit Court of Appeal's ruling in *Defenders of Wildlife v. Browner* (191 F.3d 1159, 1166 (1999)) that the permitting authority has discretion regarding the nature and timing of requirements that it includes as MS4 permit conditions to attain water quality standards, and that these requirements may include numeric effluent limitations.

Further, given the variability in implementation of storm water management programs across Permittees, numeric WQBELs create an objective, equitable and accountable means of controlling MS4 discharges, while providing the flexibility for Permittees to comply with the WQBELs in any lawful manner.

D. Final Effluent Limitations

Final WQBELs are included in this Order based on the final WLAs assigned to discharges from the Los Angeles County MS4 in all available TMDLs.

MS4 permits can include compliance schedules for achieving final WQBELs derived from TMDL WLAs, so long as the compliance schedule is consistent with a TMDL implementation plan adopted by the Regional Water Board and approved through the State's basin plan amendment process. If a compliance schedule exceeds one year, it must include interim requirements pursuant to 40 CFR section 122.47.

Section 402(o) of the CWA and 40 CFR section 122.44(I) require that effluent limitations or conditions in reissued orders be at least as stringent as those in the existing order. This Order carries over the final receiving water limitations and WQBELs that were included to implement the Marina del Rey Harbor Back Basins and Mothers' Beach Bacteria TMDL and the Los Angeles River Trash TMDL, respectively, in the 2007 and 2009 amendments to Order No. 01-182.

E. Interim Effluent Limitations

Where there is a TMDL implementation plan adopted by the Regional Water Board and approved through the State's basin plan amendment process, interim WQBELs are included in this Order based on interim WLAs established for MS4 discharges.

²⁵ See USEPA 2010 memorandum, "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs'" in which USEPA states, "where the NPDES permitting authority determines that MS4 discharges...have the reasonable potential to cause or contribute to water quality standards excursions, permit for MS4s...should contain numeric effluent limitations where feasible to do so." USEPA further states, "[w]here the TMDL includes WLAs for stormwater sources that provide numeric pollutant load...objectives, the WLA should, where feasible, be translated into numeric WQBELs in the applicable stormwater permits."

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Receiving Water Limitations

Receiving water limitations are included in all NPDES permits issued pursuant to CWA section 402. USEPA reiterated in its Phase II Stormwater Regulations, Final Rule, that MS4 "permit conditions must provide for attainment of applicable water quality standards (including designated uses), allocations of pollutant loads established by a TMDL, and timing requirements for implementation of a TMDL."²⁶ USEPA Region IX has also affirmed the agency's position that MS4 discharges must meet water quality standards in a series of comment letters on MS4 permits issued by various California regional water boards.²⁷ Both the State Water Board and Regional Water Board have previously concluded that discharges from the MS4 contain pollutants that have the reasonable potential to cause or contribute to excursion above water quality standards.

The Ninth Circuit Court of Appeals explained that, "[w]ater quality standards are used as a supplementary basis for effluent limitations [guidelines] so that numerous dischargers, despite their individual compliance with technology based effluent limitations, can be regulated to prevent water quality from falling below acceptable levels" (*NRDC v. County of Los Angeles*, 673 F.3d 880, 886). Receiving water limitations are included in this Order to ensure that individual and collective discharges from the MS4 do not cause or contribute to exceedances of water quality standards necessary to protect the beneficial uses of the receiving waters.

The receiving water limitations in this Order consist of all applicable numeric or narrative water quality objectives or criteria, or limitations to implement the applicable water quality objectives or criteria, for receiving waters as contained in Chapters 3 and 7 of the Basin Plan, water quality control plans or policies adopted by the State Water Resources Control Board, including Resolution No. 68-16, or federal regulations, including but not limited to, 40 CFR sections 131.12 and 131.38. The water quality objectives in the Basin Plan have been approved by USEPA and combined with the designated beneficial uses constitute the water quality standards required under federal law.

This Order includes three main provisions related to receiving water limitations. First, consistent with CWA section 402(p)(B)(3)(iii) and 40 CFR section 122.44(d)(1), it includes a provision stating that discharges from the MS4 that cause or contribute to an exceedance of receiving water limitations are prohibited. This is also in accord with the State Water Board's finding in Order WQ 98-01 ("The [State Water Board] agrees that the NPDES permit must prohibit discharges that "cause" or "contribute" to violations of water quality standards."). Second, it includes a provision stating that discharges from the MS4 of stormwater or non-stormwater, for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance.²⁸

²⁶ See, e.g., Phase II Stormwater Regulations, Final Rule, 64 Fed. Reg. 68722, 68737.

²⁷ See, e.g., letter from Alexis Strauss, Acting Director, Water Division, USEPA Region IX, to Walt Pettit, Executive Director, State Water Board, re: SWRCB/OCC File A-1041 for Orange County, dated January 21, 1998.

²⁸ Wat. Code, § 13377 ("the state board or the regional boards shall . . . issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the [CWA], thereto, together with any

Third, it includes a provision that states that Permittees shall achieve these two prohibitions "through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications." This third provision elucidates the process by which Permittees are expected to achieve the first two provisions and then outlines the so-called "iterative process" whereby certain actions are required when exceedances of receiving water limitations occur and discharges from the MS4 are implicated. This iterative process includes submitting a Receiving Water Limitations Compliance Report; revising the storm water management program and its components to include additional BMPs, an implementation schedule and additional monitoring to address the exceedances; and implementing the revised storm water management program. The inclusion of this protocol for estimating BMP effectiveness and taking additional actions such as implementing additional BMPs and/or modifying BMPs to improve their effectiveness when monitoring demonstrates that they are necessary to protect water quality is consistent with USEPA's expectations for MS4 permits.²⁹

The State and Regional Water Boards have stated that each of the three provisions are independently applicable, meaning that compliance with one provision does not provide a "safe harbor" where there is non-compliance with another provision (i.e., compliance with the third provision does not shield a Permittee who may have violated the first or second provision from an enforcement action). Rather, the third provision is intended to ensure that the necessary storm water management programs and controls are in place, and that they are modified by Permittees in a timely fashion when necessary, so that the first two provisions are achieved as soon as possible. USEPA expressed the importance of this independent applicability in a series of comment letters on MS4 permits proposed by various regional water boards. At that time, USEPA expressly objected to certain MS4 permits that included language stating, "permittees will not be in violation of this [receiving water limitation] provision ..." (if certain steps are taken to evaluate and improve the effectiveness of the Drainage Area Management Plan (DAMP)), concluding that this phrase would not comply with the CWA.³⁰

The receiving water limitations provisions in this Order are the same as those included in the previous Los Angeles County MS4 Permit provisions, and are based on precedential State Water Board Orders WQ 98-01 and WQ 99-05.

The Receiving Water Limitations provisions of Order No. 01-182 have been litigated twice, and in both cases the courts have upheld the language and the State and Regional Water Board's interpretation of it. Both courts ruled that the first two provisions are independently applicable from the third provision that establishes the "iterative process" requirements and no "safe harbor" exists.

more stringent effluent standards or limitations necessary to implement waste quality control plans, or for the protection of beneficial uses, or to prevent nuisance").

²⁹ See, e.g., USEPA 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs."

³⁰ See note 20.

The provisions were first litigated in 2005 where the Los Angeles County Superior Court stated, "In sum, the Regional [Water] Board acted within its authority when it included Parts 2.1 and 2.2 in the Permit without a 'safe harbor,' whether or not compliance therewith requires efforts that exceed the 'MEP' standard." (*In re L.A. Cnty. Mun. Storm Water Permit Litig.*, No. BS 080548, at 4-5, 7 (L.A. Super. Ct. Mar. 24, 2005).).

The provisions were again litigated in 2011. In that case, the Ninth Circuit Court of Appeal in *NRDC v. County of Los Angeles* (673 F.3d 880, 886) affirmed that the iterative process (in Part 2.3 of the 2001 Order) does not "forgive" violations of the discharge prohibitions (in Parts 2.1 and 2.2 of the 2001 Order). The court acknowledged that Part 2.3 clarifies that Parts 2 and 3 interact, but the court concluded that Part 2.3 "offers no textual support for the proposition that compliance with certain provisions shall forgive non-compliance with the discharge prohibitions." The Ninth Circuit further concluded that, "[a]s opposed to absolving noncompliance or exclusively adopting the MEP standard, the iterative process ensures that if water quality standards 'persist,' despite prior abatement efforts, a process will commence whereby a responsible Permittee amends its SQMP. Given that Part 3 of the [2001] Permit states that SQMP implementation is the 'minimum' required of each Permittee, the discharge prohibitions serve as additional requirements that operate as enforceable water-quality-based performance standards required by the Regional Board."

This Order includes requirements in Part VI.E of this Order to implement WLAs assigned to MS4 discharges from 33 TMDLs. Those TMDLs adopted through the State's basin planning process include programs of implementation pursuant to California Water Code section 13242, including implementation schedules, for attaining water quality standards. The TMDL provisions in Part VI.E and attachments include compliance schedules for TMDLs adopted by the Regional Water Board consistent with the TMDL implementation schedule to achieve the final receiving water limitations. The Regional Water Board recognizes that, in the case of impaired waters subject to a TMDL, the permit's receiving water limitations for the pollutants addressed by the TMDL may be exceeded during the period of TMDL implementation. Therefore, this Order provides, in Part VI.E.2.c, that an MS4 Permittee shall not be considered in violation of a receiving water limitation in Part V.A. of this Order for the particular pollutant addressed by the TMDL, if the Permittee is in full compliance with the applicable TMDL requirements pursuant to the compliance schedules in this Order.

For water body-pollutant combinations not addressed by a TMDL, the Regional Water Board will work with the MS4 Permittees through the process outlined in Part V.A.3 in this Order or the prioritization and adaptive management processes in Permittees' watershed management programs (which mirror the iterative process in Part V.A.3), so that additional controls are implemented in an expeditious manner to address exceedances of receiving water limitations that are caused or contributed to by discharges from the MS4. Generally, to comply with Part V.A.3, the Regional Water Board expects that MS4 Permittees will address isolated exceedances of receiving water limitations through the screening of MS4 outfalls for significant non-storm water discharges and subsequent source identification (including monitoring and comparison to non-storm water action levels, where appropriate) and elimination actions and through its illicit connection/illicit discharges elimination program. For persistent

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exceedances of receiving water limitations, the Regional Water Board expects that MS4 Permittees will comply with Part V.A.3 by first undertaking a detailed source assessment in the contributing drainage area as part of its watershed management program (as required by Part VI.C.3.a.iii of this Order), and identifying and implementing additional BMPs and other control measures (as required by Parts VI.C.3.b and VI.C.4 of this Order). The detailed source assessment and identification of BMPs and control measures may also be conducted during the adaptive management process of the watershed management program in response to exceedances of receiving water limitations that occur between the initial development of the watershed management program and the first evaluation of program effectiveness.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. Dischargers must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42.

B. Watershed Management Programs

The purpose of the Watershed Management Programs is to provide a framework for Permittees to implement the requirements of this Order in an integrated and collaborative fashion to address water quality priorities on a watershed scale. This watershed management paradigm is consistent with federal regulations that support the development of permit conditions, as well as the implementation of storm water management programs, at a watershed scale (40 CFR §§ 122.26(a)(3)(ii), 122.26(a)(3)(v), and 122.26(d)(2)(iv)). USEPA later issued a Watershed-Based NPDES Permitting Policy Statement (USEPA, 2003) that defines watershed-based permitting as an approach that produces NPDES permits that are issued to point sources on a geographic or watershed basis. In this policy statement, USEPA explains that, "[t]he utility of this tool relies heavily on a detailed, integrated, and inclusive watershed planning process." USEPA identifies a number of important benefits of watershed permitting, including more environmentally effective results; the ability to emphasize measuring the effectiveness of targeted actions on improvements in water quality; reduced cost of improving the quality of the nation's waters; and more effective implementation of watershed plans, including TMDLs, among others.

There are several reasons for this shift in emphasis from Order No. 01-182. A watershed based structure for permit implementation is consistent with TMDLs developed by the Los Angeles Water Board and USEPA, which are established at a watershed or subwatershed scale and are a prominent new part of this Order. Many of the Permittees regulated by this Order have already begun collaborating on a watershed scale to develop monitoring and implementation plans required by TMDLs. Additionally, a watershed based structure comports with the recent amendment to the Los Angeles County Flood Control Act (Assembly Bill 2554 in 2010), which allows the

LACFCD to assess a parcel tax for storm water and clean water programs. Funding is subject to voter approval in accordance with Proposition 218. Fifty percent of funding is allocated to nine "watershed authority groups" to implement collaborative water quality improvement plans.

An emphasis on watersheds is appropriate at this stage in the region's MS4 program to shift the focus of the Permittees from rote program development and implementation to more targeted, water quality driven planning and implementation. Addressing MS4 discharges on a watershed scale focuses on water quality results by emphasizing the receiving waters within the watershed. The conditions of the receiving waters drive management actions, which in turn focus on the measures to address pollutant contributions from MS4 discharges.

The ultimate goal of the Watershed Management Programs is to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable WQBELs that implement TMDLs, (ii) do not cause or contribute to exceedances of receiving water limitations, and (iii) for non-storm water discharges from the MS4, are not a source of pollutants to receiving waters.

After more than 20 years of program implementation, it is critical that the Permittees design and implement their programs based on their improved knowledge of storm water and its impacts on local receiving waters and by employing BMPs and other control measures that have been developed and refined over the past two decades. The Watershed Management Programs are driven by strategic planning and implementation, which will ultimately result in more cost effective implementation. The Watershed Management Programs will provide permittees with the flexibility to prioritize and customize control measures to address the water quality issues specific to the watershed management area (WMA), consistent with federal regulations (40 CFR § 122.26(d)(2)(iv)).

Focusing on watershed implementation does not mean that the Permittees must expend funds outside of their jurisdictions. Rather, the Permittees within each watershed are expected to collaborate to develop a watershed strategy to address the high priority water quality problems within each watershed. They have the option of implementing the strategy in the manner they find to be most effective. Each Permittee can implement the strategy individually within its jurisdiction, or the Permittees can group together to implement the strategy throughout the watershed.

While this Order includes a new emphasis on addressing MS4 discharges on a watershed basis, this Order includes recognition of the importance of continued program implementation on jurisdictional levels. This Order also acknowledges that jurisdictional and watershed efforts may be integrated to achieve water quality outcomes.

In this Order, the watershed requirements serve as the mechanism for this program integration. Since jurisdictional activities also serve watershed purposes, such activities can be integrated into the Permittees' watershed management programs. Such opportunities for program integration inherently provide flexibility to the Permittees in

implementing their programs. Program integration can be expanded or minimized as the Permittees see fit. Some Permittees may opt to continue jurisdiction-specific implementation for certain programs, while for other program areas more collaborative watershed scale implementation may be more effective. Permittees identify individual roles and responsibilities as part of the Watershed Management Program Plan.

Permittees can customize the BMPs to be implemented, or required to be implemented, for development, construction, and existing development areas. Flexibility to determine which industrial or commercial sites are to be inspected is also provided to the Permittees. Educational approaches are also to be determined by the Permittees under this Order. Significant leeway is also provided to the Permittees in using methods to assess the effectiveness of their various runoff management programs. This flexibility is further extended to the monitoring program requirements, which allow the Permittees to develop monitoring approaches to several aspects of the monitoring program.

The challenge in drafting this Order is to provide the flexibility described above, while ensuring that this Order provides baseline requirements and is still enforceable. To achieve this, this Order frequently prescribes baseline or default requirements, such as for each of the six "minimum control measures" within a Permittee's baseline storm water management program, while providing the Permittees with flexibility to propose customized actions as part of their watershed management program.

Permittees that elect to develop a Watershed Management Program must submit a "Notice of Intent" to the Regional Water Board no later than six months after the effective date of this Order. The Notice of Intent must be signed by all Permittees electing to participate in the Watershed Management Program for the Watershed Management Area. Permittees that do not elect to develop a Watershed Management Program are subject to the baseline storm water management program requirements in this Order and must demonstrate compliance with applicable WQBELs through monitoring data collected from the Permittee's outfall(s).

Permittees electing to develop a Watershed Management Program must submit a draft plan for approval by the Regional Water Board Executive Officer no later than one year after the effective date of this Order.

Each Watershed Management Program must:

- 1. Prioritize water quality issues resulting from storm water and non-storm water discharges to the MS4 and from the MS4 to receiving waters within each Watershed Management Area,
- **2.** Identify and implement strategies, control measures, and BMPs to achieve applicable water quality based effluent limitations and/or receiving water limitations, consistent with applicable compliance schedules in this Order,
- **3.** Execute a monitoring and assessment program to determine progress towards achieving applicable limitations, and
- **4.** Revise strategies, control measures, and BMPs as necessary to maintain progress towards achieving applicable limitations.

Watershed Management Programs must be developed using the Regional Water Board's Watershed Management Areas (see Attachments B and C of this Order). Where appropriate, Watershed Management Areas may be separated into subwatersheds to focus water quality prioritization and implementation efforts by receiving water, or to align Permittee groups with "watershed authority groups" designated in the Los Angeles County Flood Control Act, so long as the Permittees implement all TMDL provisions for which they are identified as a responsible Permittee.

Permittees must identify the water quality priorities within each Watershed Management Area that will be addressed by the Watershed Management Program consistent with 40 CFR section 122.26(d)(2)(iv). At a minimum, these priorities must include achieving applicable water quality based effluent limitations and/or receiving water limitations established pursuant to TMDLs and included in this Order.

Each plan must include an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality, consistent with 40 CFR §§ 122.26(d)(1)(iv) and 122.26(d)(2)(iii), to support identification and prioritization/sequencing of management actions.

On the basis of the evaluation of existing water quality conditions, water body-pollutant combinations must be classified into one of the following three categories:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality based effluent limitations and/or receiving water limitations are included in this Order to implement TMDLs.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Listing Policy.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable water quality standards.

Utilizing existing information, potential sources within the watershed for the pollutants in Categories 1 and 2 must be identified, consistent with 40 CFR sections 122.26(d)(1)(iii) and 122.26(d)(2)(ii). Permittees must identify known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the highest water quality priorities (Categories 1 and 2).

Based on the findings of the source assessment, the issues within each watershed must be prioritized and sequenced. Factors that must be considered in establishing watershed priorities include:

1. Pollutants for which there are water quality based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term.

- Pollutants for which there are water quality based effluent limitations and/or receiving water limitations with interim or final compliance deadlines between October 26, 2012 and October 25, 2017.
- **3.** Pollutants for which data indicate impairment in the receiving water and the findings from the source assessment implicates discharges from the MS4, but no TMDL has been developed.

Permittees must identify strategies, control measures, and BMPs to implement through their jurisdictional storm water management programs, or collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities.

The following provisions of this Order may be part of the Watershed Control Measures within a Watershed Management Program:

- Minimum Control Measures. Permittees may assess the minimum control measures (MCMs) as defined in this Order to identify opportunities for focusing resources on the high priority issues in each watershed. For each of the following minimum control measures, Permittees may propose modifications that will achieve equivalent pollutant control given watershed priorities:
 - a. Development Construction Program
 - **b.** Industrial/Commercial Program
 - c. Illicit Connection/Illicit Discharge Detection and Elimination Program
 - d. Public Agency Activities Program
 - e. Public Information and Participation Program
- 2. Non-Storm Water Discharge Measures. Where Permittees identify non-storm water discharges from the MS4 as a source of pollutants in the source assessment, the Watershed Control Measures must include strategies, control measures, and/or BMPs that will be implemented to effectively eliminate the source of pollutants. These may include measures to prohibit the non-storm water discharge to the MS4, additional BMPs to reduce pollutants in the non-storm water discharge or conveyed by the non-storm water discharge, or strategies to require the non-storm water discharge to be separately regulated under a general NPDES permit.
- **3.** TMDL Control Measures. Permittees must compile control measures that have been identified in TMDLs and corresponding implementation plans. If not sufficiently identified in previous documents, or if implementation plans have not yet been developed (e.g., EPA promulgated TMDLs), the Permittees must evaluate and identify control measures to achieve water quality based effluent limitations and/or receiving water limitations established in this Order pursuant to these TMDLs.
 - **a.** TMDL control measures must include, where necessary, control measures to address both storm water and non-storm water discharges from the MS4.
 - **b.** TMDL control measures may include activities covered under the MCMs as well as BMPs and other control measures covered under the non-stormwater discharge provisions of this Order.

c. TMDL control measures must include, at a minimum, those actions that will be implemented during the permit term to achieve interim and/or final water quality based effluent limitations and/or receiving water limitations with compliance deadlines within the permit term.

As part of the Watershed Management Program plan, Permittees must conduct a Reasonable Assurance Analysis for each TMDL that consists of an assessment (through quantitative analysis or modeling) to demonstrate that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term.

Permittees must incorporate and, where necessary develop, numeric milestones and compliance schedules into the plan consistent with 40 CFR section 122.47(a). Numeric milestones and schedules shall be used to measure progress towards addressing the highest water quality priorities and achieving applicable water quality based effluent limitations and/or receiving water limitations. Where the TMDL Provisions do not include interim or final water quality based effluent limitations and/or receiving water limitations during the permit term, Permittees must identify interim numeric milestones and compliance schedules to ensure significant progress toward achieving interim and final water quality based effluent limitations and/or receiving water limitations with deadlines beyond the permit term (40 CFR § 122.47(a)(3)).

Schedules must be developed for both the strategies, control measures and BMPs to be implemented by each individual Permittee within its jurisdiction and for those that will be implemented by multiple Permittees on a watershed scale. Schedules must be adequate for measuring progress at least twice during the permit term. Schedules must incorporate the following:

- 1. Compliance deadlines occurring within the permit term for all applicable interim and/or final water quality based effluent limitations and/or receiving water limitations to implement TMDLs,
- 2. Interim deadlines and numeric milestones within the permit term for any applicable final water quality based effluent limitation and/or receiving water limitation to implement TMDLs, where deadlines within the permit term are not otherwise specified,
- **3.** For watershed priorities not related to implementing TMDL provisions:
 - **a.** Numeric milestones based on measureable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,
 - **b.** A schedule with interim and final dates for achieving the numeric milestones as soon as possible, and
 - c. Final dates for achieving the receiving water limitations within the permit term.

Each Permittee must implement the Watershed Management Program immediately after determination by the Regional Water Board Executive Officer that the Watershed Management Program meets the requirements of this Order.

Clean Water Act section 402(a)(2) requires the permitting authority to prescribe conditions for MS4 permits to assure compliance, including conditions on data and information collection, reporting, and such other requirements as appropriate. Consistent with this requirement, Permittees in each Watershed Management Area must develop an integrated program to assess the progress toward achieving the water quality based effluent limitations and/or receiving water limitations per the compliance schedules, and the progress toward addressing the highest water quality priorities for each Watershed Management Area. The integrated watershed monitoring and assessment program must include the monitoring and assessment requirements of the Monitoring and Reporting Program (MRP) (Attachment E of this Order).

Permittees in each Watershed Management Area must implement the iterative process, at least twice during the permit term, adapting the Watershed Management Program to become more effective, based on, but not limited to the following:

- 1. Progress toward achieving the outcome of improved water quality in MS4 discharges and receiving waters through implementation of the watershed control measures;
- 2. Progress toward achieving interim and/or final water quality based effluent limitations and/or receiving water limitations, or other numeric milestones where specified, according to established compliance schedules;
- Re-evaluation of the highest water quality priorities identified for the Watershed Management Area based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;
- 4. Availability of new information and data from sources other than the Permittees' monitoring program(s) within the Watershed Management Area that informs the effectiveness of the actions implemented by the Permittees;
- 5. Regional Water Board recommendations; and
- 6. Recommendations for modifications to the Watershed Management Program solicited through a public participation process, consistent with 40 CFR section 122.26(d)(2)(iv).

Based on the results of the iterative process, Permittees are required to report any modifications necessary to improve the effectiveness of the Watershed Management Program in the Annual Report, and as part of the Report of Waste Discharge (ROWD). Permittees must implement any modifications to the Watershed Management Program upon acceptance by the Regional Water Board Executive Officer.

C. Storm Water Management Program Minimum Control Measures (MCMs)

1. General Requirements

a. Basis for MCMs. 40 CFR section 122.26(d)(2)(iv) establishes required elements of the Permittees' storm water management program. The previous permit, Order No. 01-182, included six categories of minimum control measures that are considered to be baseline or default requirements for meeting the requirements of 40 CFR section 122.26(d)(2)(iv). These requirements were determined appropriate within Order No. 01-182 and again appropriate for this Order. The minimum control measures require Permittees to implement BMPs that are considered necessary to reduce pollutants in storm water to the MEP and to effectively prohibit non-storm water discharges. In lieu of implementing the MCMs as described in Part VI of this Order, this Order allows for Permittees to develop alternative BMPs to comply with 40 CFR section 122.26(d)(2)(iv), when implemented through a Watershed Management Program approved by the Executive Officer of the Regional Water Board.

b. Timelines for Implementation

The timelines for implementation of most MCMs contained in Part VI.D of this Order is provided in Table F-5 below. Where implementation dates for minimum control measures are not provided in the Table, Part VI.D.1.b requires implementation within 30 days of the effective date this Order. All obligations continue the implementation of existing MS4 program requirements. The Table below denotes the timeframe for requirements as well as the basis of those timeframes. The majority of the timeframes are consistent with Order No. 01-182 as well as other area permits including the Ventura County MS4 Permit and the State Water Board's Construction General NPDES Permit. The timeframe for notifications, submittals, and attaining compliance with permit requirements are determined to be the earliest practicable periods and ensure timely measures for protection of water quality.

Part Number	Requirement Summary	Timeframe	Basis for Timeframe		
	Discharge Prohibitions				
III.A.2.a.ii	Potable water suppliers must notify MS4 Permittee if intend to discharge to the Permittee's MS4.	At least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge.	Allows for advanced notice and sampling, if warranted.		
III.A.4.e	If the Permittee determines that any of the authorized or conditionally exempt essential non-storm water discharges identified in Parts III.A.1.a through III.A.1.c, III.A.2.a or III.A.3 is a source of pollutants, notify the Regional Water Board if the non-storm water discharge has coverage under a separate NPDES permit or subject to a Record of Decision (ROD) approved under	Within 30 days of determination.	The language in the previous LA MS4 permit, Order No. 01-182, states "promptly." The specification of a 30 day deadline is considered reasonable and the earliest practicable deadline to ensure the protection of water quality.		

 Table F-5.
 Timeline for the Implementation of Permit Requirements

Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	section 121 of CERCLA, or a		
	conditionally exempt essential non-		
	storm water discharge or		
	emergency non-storm water		
	discharge.		
Table III.A	Dewatering of Lakes – Ensure	At least 72 hours in	Allows for advanced notice
	procedures for advanced	advance of discharge.	and sampling, if warranted.
	notification by the lake		
	owner/operator to the Permittee(s).		
Table III.A	Dechlorinated/debrominated	At least 72 hours in	Allows for advanced notice
	swimming pool/spa discharges –	advance of discharge.	and sampling, if warranted.
	Ensure procedures for advanced		
	notification by the pool owner to the		
	Permittee(s) prior to planned		
	discharges of one acre-foot or		
	more.		
Table III.A	Dewatering of decorative fountains	At least 72 hours in	Allows for advanced notice
	 Ensure procedures for advanced 	advance of discharge.	and sampling, if warranted
	notification by the fountain owner to		
	the Permittee(s) prior to planned		
	discharges of one acre-foot or		
	more.		
		ter Limitations	I <u>—</u> , , , , , , , , , , , , , , , , , , ,
V.A.3.a	Upon determination by either the	Within 30 days of receipt	The language in the
	Permittee or the Regional Water	of analytical results from	current LA MS4 permit
	Board that discharges from the MS4	the sampling event.	reads "promptly." The
	are causing or contributing to an		specification of a 30 day
	exceedance of an applicable		deadline is considered
	Receiving Water Limitation, the		reasonable and the
	Permittee shall notify the Regional		earliest practicable
	Water Board within 30 days of		deadline to ensure the
	analytical results and thereafter		protection of water quality.
	submit an Integrated Monitoring		
	Compliance Report within the next		
	Annual Report.		This is a second start with
V.A.3.b	Submit any modifications to the	Within 30 days	This is consistent with
	Integrated Monitoring Compliance	notification from the	Order No. 01-182
	Report required by the Regional	Regional Water Board.	
V.A.3.c	Water Board Permittee shall revise its control	Within 20 days following	Allowe for adaguate time
v.A.3.C		Within 30 days following	Allows for adequate time to make modifications.
	measures and monitoring program	Regional Water Board	to make modifications.
	to incorporate the improved modified BMPs that will be	Executive Officer's	
		approval of the Integrated	
	implemented, an implementation schedule, and any additional	Monitoring Report.	
	monitoring required.		
		sions	
VI.A.2.j	Discharger shall file with the	At least 120 days prior to	Standard language.
v1.A.Z.J			Stanuaru language.
	Regional Water Board a report of	any change.	
	waste discharge before making any		
	material change or proposed		
	change in the character, location, or		
	volume of the discharge.	had Managamant Bragram	
VI.C.2.b	Special Provisions: Waters Permittees that elect to develop a	No later than 6 months	
v1.0.2.0			This provides a reasonable
	Watershed Management Program	after the date this Order	amount of time to



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	must notify the Regional Water Board.	is adopted.	determine participation in a WMP, but also ensure adequate time for implementation of watershed scale control measures during the term of this Order.
VI.C.2.c	Permittees that elect to develop a Watershed Management Program shall submit a draft plan to the Regional Water Board Executive Officer.	No later than 1 year after the date this Order is adopted.	This provides a reasonable amount of time to complete the plan but also ensure effective monitoring during the term of this Order.
VI.C.6.a.i	Permittees in each Watershed Management Area shall implement an adaptive management process adapting the Watershed Management Program to become more effective.	At least twice during the permit term.	This encourages application of the iterative approach.
VI.C.6.b.i	Permittees in the Watershed Management Area shall implement the adaptive management process with regard to its jurisdictional storm water management program to improve its effectiveness.	At least annually.	This encourages application of the iterative approach.
		imum Control Measures	
VI.D.2.a.i	Progressive Enforcement and Interagency Coordination – In the event that a Permittee determines that a facility or site operator has failed to adequately implement all necessary BMPs, that Permittee shall take progressive enforcement which shall include a follow-up inspection.	Follow-up inspection within 4 weeks from the date of the initial inspection and/or investigation.	This is consistent with the current LA MS4 permit.
VI.D.2.b	Progressive Enforcement and interagency Coordination – Each Permittee shall initiate investigation of complaints from facilities within its jurisdiction.	Initiate investigation within one business day of complaint.	This is consistent with Order No. 01-182.
VI.D.4.b.ii	Public Information and Participation <u>Program</u> – If participating in a County-wide or Watershed Group PIPP, provide contact information for their appropriate staff responsible for storm water public education activities to the designated PIPP coordinator and contact information changes.	No later than 30 days after a change occurs.	This is consistent with Order No. 01-182 for contact changes, which directs contact changes be sent to Los Angeles County by May 1, 2002. However, with the elimination of the Principal Permittee in this Order, it is more appropriate to direct any contact information changes directly to the PIPP coordinator.
VI.D.5.b.iii	Industrial/Commercial Business Program – Each Permittee shall update its inventory of critical	Update at least annually.	Business turn-over can be significant thus an active inventory is required.

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Part Number	Requirement Summary	Timeframe	Basis for Timeframe
VI.D.5.c.i	sources. Industrial/Commercial Business	Notify at least once	This is required so that the
	<u>Program</u> – Each Permittee shall notify the owner/operator of each of its inventoried commercial and industrial sites identified in Part VI.D.5.b of this Order of the BMP requirements applicable.	during the five-year period of this Order.	owner/operator remains informed and vigilant about BMP implementation.
VI.D.5.d.i	Industrial/Commercial Business Program – Each Permittee shall inspect all commercial facilities identified in Part VI.D.5.b of this Order twice during the 5-year term of this Order with a minimum interval of 6 months between the first and second mandatory compliance inspection required.	Provided that the first mandatory compliance inspection occurs no later than 2 years after the date this Order is adopted.	Order No. 01-182 required initial implementation by August 2004 (or a little over 2.5 years), however the 2 year requirement contained in this Order is considered reasonable and the earliest practicable deadline to ensure the protection of water quality.
VI.D.5.e.i.(1)	Industrial/Commercial Business Program – Each Permittee shall perform an initial compliance inspection of all industrial facilities identified in Part VI.D.5.b.of this Order	No later than 2 years after the date this Order is adopted.	Order No. 01-182 required initial implementation by August 2004 (or a little over 2.5 years). However, the 2 year requirement contained in this Order is considered reasonable and the earliest practicable deadline to ensure the protection of water quality.
VI.D.5.e.i.(2)	Industrial/Commercial Business <u>Program</u> – Each Permittee shall review the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) database at defined intervals to determine if an industrial facility has been recently inspected by the Regional Water Board. The Permittee does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period.	The first interval shall occur approximately 2 years after the date this Order is adopted. The second interval shall occur approximately 4 years after the date this Order is adopted.	This specific requirement for inspecting facilities within certain intervals is a new requirement, but is considered consistent with Order No. 01-182.
VI.D.5.e.i.(3)	Industrial/Commercial Business <u>Program</u> – Each Permittee shall evaluate its inventory of industrial facilities and perform a second mandatory compliance inspection at a minimum of 25% of the facilities identified to have filed a No Exposure Certification.	Approximately 3 to 4 years after the date this Order is adopted.	This is consistent Order No. 01-182.
VI.D.6.c.iii.(4).(f)	Planning and Land Development <u>Program</u> – Each Permittee shall develop a schedule for the completion of offsite projects, including milestone dates to identify, fund, design, and construct	Offsite projects shall be completed as soon as possible, and at the latest within 4 years of the certificate of occupancy for the first project that	This requirement is consistent with the provisions contained in the Ventura County Redevelopment Project Area Master Plan

Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	the projects.	contributed funds toward the construction of the offsite project.	(RPAMP).
VI.D.6.c.iv.(2).(b)	Planning and Land Development <u>Program</u> – Each Permittee may determine, based on data from its storm water outfall based monitoring program (Attachment E Part VIII.A.), that the discharge is not causing an exceedance of water quality standards. In this scenario, the Permittee shall require the project proponent to monitor the treatment system discharge and report data to the Permittee for inclusion in its Annual Report.	Monitor the treatment system discharge during the year's first precipitation event during the first two years after completion.	Monitoring of the treatment system is warranted and will also help to ensure adequate maintenance.
VI.D.6.d.i	Planning and Land Development <u>Program</u> – A local LID ordinance that fully incorporated the applicable requirements of this Order shall be submitted to the Executive Officer of the Regional Water Board for approval.	Within 180 days after the date this Order is adopted.	The requirement is deemed acceptable due to the large number of existing LID ordinances within the Permittees and the varied number of templates available nationally.
VI.D.6.d.iii.(1).(a) .(ii)	Planning and Land Development <u>Program</u> – Written conditions in the sales or lease agreement, which require the property owner or tenant to assume responsibility for BMP maintenance and conduct a maintenance inspection.	At least once a year.	This is consistent with the current Ventura County MS4 permit.
VI.D.6.d.iv	Planning and Land Development Program – Each Permittee shall implement a tracking system and an inspection and enforcement program from new development and redevelopment post- construction storm water BMPs.	No later than 60 days after the date this Order is adopted.	A tracking system is deemed critical to the success of this MCM. Additionally, a tracking system need not be complex and can, and has, been developed using spreadsheets or equivalent.
VI.D.6.d.iv.(1).(c) .(ii)	Planning and Land Development <u>Program</u> – Inspection of post- construction BMPs to assess operation conditions with particular attention to criteria and procedures for post-construction treatment control and hydromodification control BMP repair, replacement, or re-vegetation.	Inspection at least once every 2 years after project completion.	This is consistent with the current Ventura County MS4 permit.
VI.D.7.j.ii.(1)	Development Construction Program – Inspect public and private construction sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under CWA § 303(d).	When two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA, within 48 hours of a ½-inch rain event, and at least once every two	This requirement is consistent with the current State Water Board's General NPDES Construction Permit Requirements.



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
		weeks.	
VI.D.7.j.ii.(1)	<u>Development Construction Program</u> – Inspect public and private construction sites 1 acre or larger determined to be a significant threat to water quality.	When two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA, within 48 hours of a $\frac{1}{2}$ -inch rain event, and at least once every two weeks.	This requirement is consistent with the current State Water Board's General NPDES Construction Permit Requirements.
VI.D.7.j.ii.(1)	<u>Development Construction Program</u> – Inspect public and private construction sites 1 acre or larger that do not meet other criteria in Part VI.D.7.j.ii.(1) of this Order.	At least monthly.	This requirement is consistent with the current General Construction Permit Requirements.
VI.D.8.c.iii	Public Agency Activities Program – Each Permittee shall update its facility inventory.	At least twice during the term of this Order.	This requirement is deemed reasonable because site conditions can change at existing facilities.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority A catch basins.	A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority B catch basins.	A minimum of once during the wet season and once during the dry season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority C catch basins.	A minimum of once per year.	This is consistent with Order No. 01-182.
VI.D.8.h.iv.(1).(c)	Public Agency Activities Program – Provide clean out of catch basins, trash receptacles, and grounds in the event area.	Within 24 hours subsequent to the event.	This is consistent with thecurrent Ventura County MS4 permit.
VI.D.8.h.vi.(2)	Public Agency Activities Program – Each Permittee shall inspect the legibility of the stencil or label nearest each inlet.	Prior to the wet season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.vi.(3)	Public Agency Activities Program – Each Permittee shall record all catch basins with illegible stencils and re-stencil or re-label.	Within 180 days of inspection.	This is consistent with Order No. 01-182.
VI.D.8.h.vii.(1)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall install trash excluders, or equivalent devices, on or in catch basins or outfalls, except at sites where the application of such BMPs alone will cause flooding.	No later than 2 years after the date this Order is adopted in areas specified as Priority A.	This is consistent with the current Ventura County MS4 permit.
VI.D.8.h.viii.(1)	Public Agency Activities Program – Visual monitoring of Permittee- owned open channels and other drainage structures, including	At least annually.	This is consistent with Order No. 01-182.



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	debris basins, for debris.		
VI.D.8.h.viii.(2)	Public Agency Activities Program – Removal of trash and debris from open channels and debris basins.	A minimum of once per year before the wet season.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program – Each Permittee shall perform street sweeping of curbed streets for Priority A areas.	Swept at least two times per month.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program – Each Permittee shall perform street sweeping of curbed streets for Priority B areas.	Swept at least once per month.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program – Each Permittee shall perform street sweeping of curbed streets for Priority C areas.	Swept as necessary but in no case less than once per year.	This is consistent with Order No. 01-182.
VI.D.8.i.iv.(1)	Public Agency Activities Program – Permittee-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned using street sweeping equipment.	No less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a Permittee-owned parking lot be cleaned less than once a month.	This is consistent with Order No. 01-182.
VI.D.8.j.i.(2)	Public Agency Activities Program – Where the self-waiver has been invoked, the Permittee shall submit to the Regional Water Board Executive Officer a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality.	No later than 30 business days after the situation of emergency has passed.	This is consistent with the current Ventura County MS4 permit.
VI.D.8.k.i	Public Agency Activities Program – Each Permittee shall train all of their employees and contractors in targeted positions on the requirements of the overall storm water management program.	No later than 1 year after the date this Order is adopted and annually thereafter before June 30.	Order No. 01-182 allowed for this to be initially completed by August 2002. However, since this implementation of this requirement is continuing from the previous LA MS4 permit, implementation within a year is considered reasonable and the earliest practicable period for implementation. This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.8.k.ii	Public Agency Activities Program – Each Permittee shall train all of their employees and contractors in who use or have the potential to use pesticides or fertilizers.	No later than 1 year after the date this Order is adopted and annually thereafter before June 30.	This is consistent with the current Ventura County MS4 permit.



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
VI.D.9.b.ii	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee shall initiate investigation(s) to identify and locate the source of an illicit discharge.	Within 72 hours of becoming aware of the illicit discharge.	Order No. 01-182 and the current Ventura County MS4 permit require illicit discharge investigations be initiated within 1 business day. However, the 72 hour requirement takes into account the possibility of weekend spills.
VI.D.9.b.iv.(2)	Illicit Connections and Illicit Discharges Elimination Program – If the source of the illicit discharge has been determined to originate within an upstream jurisdiction, the Permittee shall notify the upstream jurisdiction and the Regional Water Board.	Within 30 days of such determination.	This ensures the ID is addressed in a reasonable period of time by the upstream jurisdiction.
VI.D.9.b.v	Illicit Connections and Illicit Discharges Elimination Program – In the event the Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, the Permittee shall work with the Regional Water Board to provide a diversion of the entire flow to the sanitary sewer or provide treatment.	Notify the Regional Water Board within 30 days of such determination and provide a written plan for review and comment.	This ensures the Regional Water Board is effectively engaged in the ultimate disposition of ongoing illicit discharges.
VI.D.9.c.ii	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation.	Initiate investigation within 21 days of discovery.	This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.9.c.iii.(2)	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon confirmation of an illicit MS4 connection, shall ensure that the connection is eliminated.	Within 180 days of completion of the investigation.	This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.9.e.i.(2)	Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation of all public and employee illicit discharge and spill complaints.	Within 1 business day of receiving the complaint.	This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.9.e.i.(3)	Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.	Within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to	The requirement that spills be responded to within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of

Part Number	Requirement Summary	Timeframe	Basis for Timeframe
		the property.	gaining legal access to the property is the earliest practicable period for implementation and ensures the protection of water quality.
VI.D.9.f.iv	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee must create a list of applicable staff and contractors which require IC/ID training and ensure that training is provided.	At least twice during the term of this Order.	This requirement is new and twice during the term of this Order is considered reasonable and the earliest practicable period for implementation.
VI.D.9.f.v	Illicit Connections and Illicit Discharges Elimination Program – New Permittee staff members must be provided with IC/ID training.	Within 180 days of starting employment.	The current Ventura MS4 permit specifies that within 1 year all employees must be trained. However, the requirement that employees be trained within 180 days of starting employment is the earliest practicable period for implementation and ensures the protection of water quality.

2. Progressive Enforcement

Progressive enforcement is a series of defined and reproducible enforcement actions whereby consequences of non-compliance increase with each incremental enforcement steps. Progressive enforcement includes procedures to coordinate enforcement between the Regional Water Board and Permittees. As the Regional Water Board is the agency responsible for implementing the NPDES program, it has the authority to step in when enforcement actions of Permittee are unsuccessful in bringing dischargers into compliance with the permit. As such, progressive enforcement is an effective strategy to achieve timely compliance with permit requirements. Order No. 01-182 included requirements for a progressive enforcement strategy that are carried over to this Order, with some modifications. This Order includes supplemental documentation requirements for site acreage and Risk Factor rating, when making a referral to the Regional Water Board for MS4 permit non-compliance of a discharger under the construction general permit. This requirement is necessary information for the Regional Water Board consideration. Moreover, this Order eliminates the provision within Order No. 01-182 that allows the Regional Water Board and Permittees to form a storm water task force. This provision was removed because the ability for coordinated enforcement between the Regional Water Board and Permittees is adequately established through remaining provisions within Part VI.D.2 of this Order.

3. Modifications/Revisions

This Order requires each Permittee to modify its storm water management programs, protocols, practices, and municipal codes to be consistent with this Order.

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This provision is necessary to ensure that each Permittee takes all the steps necessary to update the core and ancillary programs that are required to ensure compliance with this Order. A significant change from Order No. 01-182 is that this obligation now rests with each individual Permittee rather than the Principal Permittee.

4. Public Information and Participation Program

a. Legal Authority

NPDES regulation 40 CFR section 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from MS4s associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities."

NPDES regulation 40 CFR section 122.26(d)(2)(iv)(B)(6) provides that the proposed management program include " A description of education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."

To satisfy the Public Education and Outreach minimum control measure, the Permittees need to implement a Public Information and Participation Program (PIPP) that has the following objectives: (1) measurably increase the knowledge of the target audiences about the MS4, the adverse impacts of storm water pollution of receiving waters and potential solutions to mitigate the impacts, (2) measurably change the waste disposal and storm water pollution generation behavior of target audiences by developing and encouraging implementation of appropriate activities, and (3) involve and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of storm water pollution.

b. Background

Implementation of a PIPP is a critical BMP and a necessary component of a storm water management program. The State Water Board Technical Advisory Committee "recognizes that education with an emphasis on pollution prevention is the fundamental basis for solving nonpoint source pollution problems." The USEPA Phase II Fact Sheet 2.3 (Fact Sheet 2.3) finds that "An informed and knowledgeable community is critical to the success of a storm water management program since it helps insure the following: (i) greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important, and (ii) greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and

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others in the community, including the individual actions they can take to protect or improve the quality of area waters."³¹

Furthermore, the public can provide valuable input and assistance to a municipal storm water management program and, therefore, should play an active role in the development and implementation of the program. An active and involved community is essential to the success of a storm water management program because it allows for:

- Broader public support since residents who participate in the development and decision making process are partially responsible for the program and, therefore, are more likely to take an active role in its implementation;
- Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of residents volunteers;
- A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
- A conduit to other programs as residents involved in the storm water program development process make important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis.

c. PIPP Implementation

It is generally more cost-effective to have numerous operators coordinate to use an existing program than each developing its own local programs. Therefore, Permittees are encouraged to participate in a County-sponsored PIPP or in one or more Watershed Group sponsored PIPPs supplemented with additional information specific to local needs.

Permittees are required to: (a) conduct storm water pollution prevention public service announcements and advertising campaigns; (b) provide public education materials on the proper handling or potential storm water pollutants; (c) distribute activity specific storm water pollution prevention public education materials to points of purchase; (d) maintain storm water websites or provide links to storm water websites via the Permittees website, which contain educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities; and (e) provide independent, parochial, and public schools within each Permittee's jurisdiction with materials, including, but not limited to videos, live presentations, and other information. Permittees are required to use effective strategies to educate and involve ethnic communities using culturally effective methods.

³¹ Storm Water Phase II Final Rule - Public Education and Outreach Minimum Control Measure. USEPA Fact Sheet 2.3, January 2000.

The intent of these changes is to provide an increase in public knowledge of storm water pollution prevention practices in an effective and cost efficient manner, while still providing flexibility for the Permittees to implement the requirements on a watershed group basis.

The Order requires outreach to ethnically diverse communities using culturally effective strategies. The USEPA, Tailoring Outreach Programs to Minority and Disadvantaged Communities and Children Fact Sheet finds that, "many residents of ethnically and culturally diverse communities don't speak English. English messages contained in public education outreach materials may not be effectively reaching a significant portion of some communities. The intent of this provision is to encourage behavior changes that reduce pollutants in storm water to a portion of the population who might otherwise be overlooked.

5. Industrial/Commercial Business Program

a. Legal Authority

The Phase I regulations require, in part, that the applicant: (i) develop adequate legal authority, (ii) perform a source identification, and (iii) develop a management program to reduce the discharge of pollutants to the MEP using management practices, control techniques and system design and engineering methods, and such other provisions which are appropriate. Specifically, with regards to industrial controls, the management plan shall include the following.

"A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system. The program shall:

- i. Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.
- **ii.** Describe a monitoring program for storm water discharges associated with industrial facilities [...]"

(40 CFR section 122.26(d)(2)(iv)(C))

The provisions contained in this Order pertaining to the inspection and facility control program requirements for industrial and commercial facilities, as well as construction sites (as discussed below in Part VI.7.b.) are also based on the requirements found in the previous permit, Order No. 01-182. Those requirements, among others, were the subject of litigation between several permittees and the Regional Water Board. In that case, the Los Angeles County Superior Court upheld the inspection and facility control program requirements for industrial/commercial facilities and construction sites in Order No. 01-182.

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The Court determined that "[t]he Permit contains reasonable inspection requirements for these types of facilities. [Citation.] The Permit requires each permittees to confirm that operators of these facilities have a current waste discharge identification number and is effectively implementing Best Management Practices (BMPs) in compliance with County and municipal ordinances, Regional Board Resolution 90-08 and the Stormwater Quality Management Plans (SQMPs). [Citation.] Addressing pollution after it has entered the storm sewer system is not working to meet legislative goals. More work is required at the source of pollution, and that is partially the basis on which this Court finds that the Permit's inspection requirements are reasonable, and not onerous and burdensome." (*In re L.A. Cnty. Mun. Storm Water Permit Litig.,* No. BS 080548 (L.A. Super. Ct. Mar. 24, 2005), at 17.)

The Court also addressed the permittees' claims that the requirements in Order No. 01-182 shifted the Regional Water Board's inspection responsibility under State Water Board issued general NPDES permits for these types of facilities onto the local agencies. The Court disagreed, stating: "The Court agrees with [the Regional Water Board] and Intervenors that the United States EPA considered obligations under state-issued general permits to be separate and distinct. Despite the similarity between the general permits and the local storm water ordinances, both must be enforced. [Citations.] EPA requires permittees to conduct inspections of commercial and industrial facilities, as well as of construction sites. [Citation.].....This Court finds that the state-issued general permits do not preempt local enforcement of local storm water ordinances. (See State Board Order No. 99-08, [citation].) [¶] Therefore, this Court finds that requiring permittees to inspect commercial and industrial facilities and construction sites is authorized under the Clean Water Act, and both the Regional Board and the municipal permittees or the local government entities have concurrent roles in enforcing the industrial, construction and municipal permits. The Court finds that the Regional Board did not shift its inspection responsibilities to Petitioners. [¶] ... The Court further notes that the Permit issued to local entities, who are Petitioners here, does not refer to any inspection obligations related to state-issued permits. [Citation.] There is no duplication of efforts and no shifting of inspection responsibility in derogation of the Regional Board's responsibility here. The Regional Board is not giving up its won responsibilities, and there is nothing arbitrary or capricious about the Permit's inspection provisions." (*Id.* at 17-18.)

It is also important to note that similar controls for industrial/commercial facilities and constriction sites, including inspection activities, required by this Order were also required in the 2002 San Bernardino County MS4 permit issued by the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Water Board). Like Order No. 01-182, that permit was also subject to litigation. In that case, the City of Rancho Cucamonga claimed that the Santa Ana Regional Water Board improperly delegated to it and other permittees the inspection duties of the State and Regional Water Boards and that it was being required to conduct inspections for facilities covered by other state-issued general NPDES permits. (*City of Rancho Cucamonga v. Regional Water Quality Control Board- Santa Ana*

Region (2006) 135 Cal.App.4th 1377, 1389.)Like the Los Angeles County Superior Court, the California Court of Appeal rejected this argument. The Court of Appeal upheld the Santa Ana Regional Water Board's requirements, finding that "Rancho Cucamonga and the other permittees are responsible for inspecting construction and industrial sites and commercial facilities within their jurisdiction for compliance with and enforcement of local municipal ordinances and permits. But the Regional Board continues to be responsible under the 2002 NPDES permit for inspections under the general permits. The Regional Board may conduct its own inspections but permittees must still enforce their own laws at these sites. (40 C.F.R. § 122.26, subd. (d)(2) (2005).)" (*Id.* at 1390.)

b. Background

Municipalities are required to control the storm water discharges associated with industrial activities and other commercial facilities identified as significant contributors of pollutants through the implementation of a mandatory baseline minimum set of source control BMPs; performance of an inspection program to verify the adequacy of BMPs implementation in the field and compliance with the municipal ordinances; and assist the Regional Water Board in ensuring that industrial activities subject to regulations are covered by the general industrial stormwater permit. Regional Water Board will also assist the municipal ordinances and state and federal laws and regulations.

The municipality is ultimately responsible for discharges from the MS4. Because industrial awareness of the program may not be complete, there may be facilities within the MS4 area that should be permitted under an industrial storm water permit but are not (non-filers). In addition, the Phase I regulations that require industries to obtain permit coverage for storm water discharges is largely based on Standard Industry Classification (SIC) Code. This has been shown to be incomplete in identifying industries that may be significant sources of storm water pollution ("industries" includes commercial businesses). The word "industries" is used in a broad sense. Another concern is that the permitting authority may not have adequate resources to provide the necessary oversight of permitted facilities. Therefore, it is in the municipality's best interest to assess the specific situation and implement an industrial/commercial inspection/site visit and enforcement program to control the contribution of pollutants to the MS4 from all high risk sources.

In the preamble to the 1990 regulations, USEPA clearly states the intended strategy for discharges of storm water associated with industrial activity:

"...Municipal operators of large and medium municipal separate storm sewer systems are responsible for obtaining system-wide or area permits for their system's discharges. These permits are expected to require that controls be placed on storm water discharges associated with industrial activity which discharge through the municipal system." The USEPA also notes in the preamble

that "... municipalities will be required to meet the terms of their permits related to industrial dischargers."

Similarly, in the USEPA's Guidance Manual (Chapter 3.0), USEPA specified that MS4 applicants must demonstrate that they possess adequate legal authority to:

- i. Control construction site and other industrial discharges to MS4s;
- ii. Prohibit illicit discharges and control spills and dumping;
- iii. Carry out inspection, surveillance, and monitoring procedures.

The document goes on to explain that "control," in this context means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4. Further, to satisfy its permit conditions, a municipality may need to impose additional requirements on discharges from permitted industrial facilities, as well as discharges from industrial facilities and construction sites not required to obtain permitts.

In the same Guidance Manual (Chapter 6.3.3), USEPA states that the municipality is ultimately responsible for discharges from their MS4. Consequently, the MS4 applicant must describe how the municipality will help the USEPA and authorized NPDES States to:

- i. Identify priority industries discharging to their systems;
- **ii.** Review and evaluate storm water pollution prevention plans (SWPPPs) and other procedures that industrial facilities must develop under general or individual permits;
- **iii.** Establish and implement BMPs to reduce pollutants from these industrial facilities (or require industry to implement them); and
- iv. Inspect and monitor industrial facilities discharging storm water to the municipal systems to ensure these facilities are in compliance with their NPDES storm water permit, if required.

c. Industrial/Commercial Business Program Implementation

The requirements in this Order clarify the scope and frequency of inspections. For commercial facilities, in general, frequencies have modified to require inspections of a facility twice during the five year permit tem provided that the first mandatory compliance inspection takes place no later than two years after the date this Order is adopted with a minimum interval of six months between the first and second inspection. The scope of the inspections for each of the facility types was clarified by specifying in tables what BMPs should be implemented at that facility to ensure that pollutant generating activity does not occur. The tables include a range of BMPs that are anticipated to be needed at select industrial and commercial facilities. The BMP categories are based on BMPs identified in the 2003 California Stormwater BMP Handbook, Industrial and Commercial as well as BMPs identified in Regional Water Board Resolution No. 98-08.

For industrial facilities, an initial mandatory compliance inspection must be completed at all industrial facilities no later than 2 years after the date this Order is adopted. If after the initial inspection, the facility was determined to as having exposure of industrial activities to storm water then the permit requires a second mandatory compliance inspection with a minimum interval of 6 months between the first and second mandatory compliance inspection. For facilities determined not to have exposure of industrial activities to storm water during the initial inspection, Permittees must conduct second compliance inspections yearly at a minimum of 20% of the facilities.

A provision was added to the Order relieving Permittees of the responsibility to inspect industrial facilities that the Regional Water Board has inspected within the previous 24 months.

In regards to the level of inspection, this Order clarifies that the Permittees are expected to check during inspections for a current Waste Discharge Identification (WDID) number for facilities discharging storm water associated with industrial activity, and that a SWPPP is available on site or that the owner/operator of the facility has applied for and has a current No Exposure Certification (and WDID number). In addition Permittees are expected to check during inspections for compliance with the implementation of minimum BMPs, as previously approved by Board Order 98-08, and compliance with the local storm water ordinances.

The inspection requirements in this Order provide greater clarification concerning the scope of enforcement. A progressive enforcement procedure was outlined including minimum steps that Permittees must take in their program to enforce their municipalities' storm water requirements. In recognition of some of the Permittees concerns regarding the resource intensive efforts needed to elevate enforcement actions, a mechanism was provided through which Permittees can refer cases to the Regional Water Board, and for violations of the State Water Board's General Industrial Activities Storm Water NPDES permit, the referral can be expedited, referral can occur after a single inspection and one written notice rather than referral after two inspections and two written notices.

6. Planning and Land Development Program

a. Legal Authority

The permit application requirements described in 40 CFR section 122.26(d) have formed the basis for MS4 permits and remain applicable as elements in a storm water program. 40 CFR section 122.26(d)(2)(iv), requires in part, that the large and medium MS4 system applicant develop a management plan. Specifically, with regards to planning and land development and post-construction controls, the management plan shall include the following:

"(A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:

(1) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers;

(2) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed.

(3) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems

(4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible."

b. Background

Land development and urbanization have been linked to the impairment of aquatic life beneficial uses in numerous studies. Poorly planned new developments and re-development have the potential to impact the hydrology of the watershed and the water quality of the surface waters. Development without proper controls, often result in increased soil compaction, changes in vegetation and increased impervious surfaces. These conditions may lead to a reduction in groundwater recharge and changes in the flow regime of the surface water drainages. Historically, urban development has resulted in increased peak stream flows and flow duration, reduced base flows, and increased water temperatures. Pollutant loading in storm water runoff often increases due to post-construction use and because the storm water runoff is directly connected to the storm drain system or to the surface water body, without the benefit of filtration through soil and vegetation.

In a natural water body (i.e., a water body that has not been armored for flood control or channel stability), increased peak flows and flow duration can cause stream bank erosion, changes in channel geomorphology and bed sediment composition and stability.

When development infringes upon natural riparian buffers, the additional impacts may include further stream bank instability, increased nitrogen loadings to the water body—which would have been intercepted by native riparian vegetation,

loss of shading resulting in further increase in water temperature, and a loss of woody debris and leaf litter, which provide food and habitat for some aquatic species.

Low Impact Development (LID) strategies are designed to retain storm water runoff on-site by minimizing soil compaction and impervious surfaces, and by disconnecting storm water runoff from conveyances to the storm drain system. This Order establishes criteria for the volume of storm water to be retained onsite as required to meet water quality goals and to preserve pre-development hydrology in natural drainage systems.

In California, hydromodification studies have focused on the erosive effects of storm water runoff flows and the resulting changes in geomorphology and bed sediment. As described in Hawley et al., southern California streams may be especially susceptible to geomorphic changes due to steep topography, flashy flow regimes, high sediment loads and largely non-resistant stream bed material. This recent study assessed the impact of urbanization on peak flow and the duration of lower flows capable of moving bed sediment. The results of the study showed that, urbanization resulted in proportionally-longer durations of all geomorphically-effective flows, with a more pronounced effect on the durations of low to moderate flows.

A study performed by United States Geological Survey (USGS) researchers at nine different metropolitan areas within the United States, found that adverse impacts to macroinvertebrate benthic communities were observed in drainages with 5 percent impervious area. The authors concluded that there appears to be no percent impervious area threshold below which benthic communities are not adversely impacted

The Grand River (lower) Surrogate Flow Regime Total Maximum Daily Load (TMDL), prepared for the Ohio Environmental Protection Agency (OEPA), examined the impacts of impervious cover and flow regime changes on aquatic life beneficial uses. The TMDL was approved by USEPA on April 12, 2012. The TMDL analysis showed that aquatic community health (as measured by biological indices) decreased as impervious cover increased. Flow alteration and impervious cover were determined to be the stressors impairing aquatic life. Riparian buffers were identified as a mitigating factor. Peak flow, runoff volume, and flashiness were considered as surrogates. However, for this watershed, flow regime was selected because it addresses the full spectrum of flow conditions (i.e., peak flow and flow duration and base flow). In this watershed, low flow and increased water temperature presented a threat to cold-water fish species. Increased peak flow and flow duration were linked to impairment of aquatic life beneficial uses due to increased pollutant loading and the impact of channel scouring. A flow duration curve was developed for a reference watershed, based on unit area to allow for comparison of varying-sized streams. The criteria for selecting the reference watershed were: (1) the water body was fully supporting aquatic life beneficial uses, (2) location (ecoregion), (3) size (4) land cover (5) riparian buffer and (6) soils. The flow regime TMDL compares flow duration

curves for the impaired stream and the reference stream. The TMDL is expressed as the difference between the impaired stream's flow and the reference stream's flow during all flow conditions. The TMDL report recommends protection strategy numeric targets of no more than 6 percent EIA with a forested (70 percent coverage) riparian buffer of 100 feet from the top of each stream bank (200 feet total).

In Los Angeles County, development has infringed upon or eliminated natural riparian buffers and existing development exceeds recommended percent impervious area in many watersheds. In addition, many water bodies have been armored or converted to engineered channels to manage flood hazards. Because of the hydrologic differences between engineered channels and natural water bodies, the Regional Water Board approaches each situation differently. Where development occurs in drainages to water bodies that have been converted to engineered channels, the Regional Water Board's regulatory approach is designed to reduce storm water runoff -- the most effective method for reducing pollutant loading. Alternatively, where development occurs in drainages to natural water bodies, the Regional Water Board regulatory approach aims to reduce pollutant loading conveyed by storm water runoff and to preserve or restore the pre-development hydrology. As a result of past development, it is likely that retrofitting of existing development will be necessary to restore watershed hydrology to pre-development conditions.

c. Applicability

New development and re-development projects subject to these requirements are described in Part VI.D.6.b. of this Order. Although not defined for large and medium MS4s, 40 CFR section 122.34 requires programs for small MS4s to include all projects that disturb an area equal to or greater than 1 acre of land and add more than 10,000 square feet of impervious surface area. The list of new development projects subject to requirements, specified in this Order in Parts VI.D.1.c.i(1)(a) through (k) were either carried over from Order No. 01-182 or were developed for the Ventura County MS4 and are appropriate for defining new developments and redevelopments in this Order. Clarification is provided for developments in progress during formulation of this Order (Part VI.D.c.i(1)(4)).

New development/re-development projects are subject to either the Water Quality/Flow Reduction Resource Management Criteria in Part VI.D.6.c.i or potentially more stringent Hydromodification (Flow/ Volume/ Duration) Control Criteria. Note that hydromodification controls apply only to projects that drain to a natural water body that is a stream, creek or a river. Hydromodification controls do not apply to discharges to lakes, estuaries, or to the ocean, which are not susceptible to channel erosion.

i. Integrated Water Quality/ Flow Reduction /Resources Management Criteria (Part VI.D.6.c.i). Projects located in drainages to water bodies that are now engineered channels are subject to Integrated Water Quality/Flow Reduction/Resources Management Criteria. These projects must be designed to minimize the footprint of the impervious area and to use low impact development (LID) strategies to disconnect the runoff from impervious area. The project must be designed to retain on-site the storm water runoff equal to the storm water quality design volume (SWQDv), unless it is determined that it is technically infeasible or there is an opportunity to contribute to an off-site regional ground water replenishment project.

The SWQDv is defined as the storm water runoff resulting from either:

- the 0.75 inch per 24 hour storm or
- the 85th percentile storm as defined in the Los Angeles County 85th percentile, 24-hour storm isohyetal map, whichever is greater.

This Order establishes a minimum design volume based on the 0.75 inch, 24hour storm event as defined in the previous Los Angeles County MS4 permit (Order No. 01-182). This requirement is to prevent backsliding from the previous Order. The 85th percentile storm is the design storm used throughout most of the State of California for storm water treatment and LID BMPs designed for water quality protection.

Using detailed local rainfall data, the County of Los Angeles Hydrologist has developed the 85th percentile storm event isohyetal map, which exhibits the size of the 85th percentile storm event throughout Los Angeles County. Since this map uses detailed local rainfall data, it is more accurate for calculating the 85th percentile storm event than other methods which were included in Order No. 01-182. The other methods found in Order No. 01-182 were included as options to be used in the event that detailed accurate rainfall data did not exist for various locations within Los Angeles County. Therefore, they have not been carried over into this Order.

Storm water runoff may be retained on-site by methods designed to intercept rain water via infiltration, bioretention, and harvest and use. Examples of LID Best Management Practices (BMPs) that may be employed to meet the storm water retention requirements include rain gardens, bioswales, pervious pavement, green roofs, and rainwater harvesting for use in landscape irrigation.

- ii. Alternative Compliance for Technical Infeasibility or Opportuntity for Regional Ground Water Replenishment (Part VI.D.6.c.ii). This Order defines conditions that may make on-site retention of the SWQDv technically infeasible. These conditions include measures to:
 - Ensure that on-site soils (*in-situ* or amended) have adequate infiltration rates for successful operation of infiltration BMPs,
 - Protect groundwater and drinking water wells from contamination,
 - Prevent infiltration that might exacerbate potential geotechnical hazards,
 - Accommodate smart growth and infill or redevelopment.

A determination that compliance with the Integrated Water Quality/Flow Reduction/Resources Management Criteria is technically infeasible at the New Development/Re-development project site must be based on a site-specific hydrologic assessment or design analysis conducted and endorsed by a registered professional engineer, geologist, architect or landscape architect. This requirement is the same as contained in the Ventura County MS4 permit, and is necessary to ensure that a competent determination is conducted.

The criteria for technical infeasibility contained in Part VI.D.6.c.ii(2)(a) is necessary to ensure that the *in-situ* soil has adequate permeability to accommodate infiltration, and to ensure against premature failure of infiltration BMPs. A minimum infiltration rate of 0.15 inches per hour under saturated conditions is specified for infiltration BMPs (e.g., dry well, pervious pavement). Infiltration BMPs are restricted to Hydrologic Soil Groups A and B, by other California storm water regulatory agencies. For example, the Contra Costa County Program's Stormwater LID Design Guidebook prohibits routing storm water runoff to a dry (infiltration) well, developed in Hydrologic Soil Groups C and D³². Infiltration rates for the lower permeability B soil group ranges between 0.30 and 0.15 inches per hour (USEPA, 2009, Appendix A)³³. This criterion is specified to ensure the viability of infiltration systems, which may be depended upon to meet the storm water design volume criteria.

Infiltration BMPs are distinguished from bioretention BMPs, which may be implemented in all soils types. Bioretention BMPs are constructed using a manufactured/imported media that must meet strict specifications. The media specification for bioretention facilities is the same as specified for biofiltration systems. The difference between bioretention and biofiltration is that biofiltration systems are designed with an underdrain, which may allow for the discharge of a significant portion of the design storm volume, as described below under Alternative Compliance Measures. Bioretention BMPs may not include an underdrain.

The criteria for determining Technical Infeasibility described in Part VI.D.6.c.ii.(2)(b)-(f) are the same as contained in the Ventura County MS4 permit, except that (2)(b) "locations where seasonal high ground water is *within 5 feet of the surface*", was expanded to" 5 to 10 feet" of the surface, to be consistent with local LID Manuals developed by the City of Santa Monica and the City of Los Angeles.

³² Contra Costa County Clean Water Program. 2010. Stormwater C.3 Guidebook, Stormwater Quality Requirements for Development Applications. Fifth Ed. October 20, 2010. p. 18. < www.cccleanwater.org>.

³³ USEPA. 2009. (United States Environmental Protection Agency). Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy and Independence and Security Act. Office of Water. December 2009.

iii. Alternative Compliance Measures (Part VI.D.6.c.iii.). This Order provides equally weighted alternatives to on-site retention of the SWQDv. One alternative is to employ infiltration at off-site locations, including regional groundwater replenishment projects. In an effort to promote retrofitting of existing development, alternative compliance measures may include the use of infiltration, bioretention, rainfall harvest and/or biofiltration at an existing development with similar land uses and where storm water runoff is expected to exhibit pollutant event mean concentrations (EMCs) that are comparable to or higher than the proposed new development re-development project. As another alternative the project proponent may comply with the Integrated Water Quality/Flow Reduction/Resources Management Criteria using biofiltration on the project site. The volume of storm water to be treated with biofiltration is 1.5 times the difference between the SWQDv and the volume of storm water runoff that can be reliably retained on the project site. The 1.5 multiplier is based on the finding in the Ventura County Technical Guidance Manual that biofiltration of 1.5 times the design volume will provide approximately the same pollutant removal as retention of the design volume on an annual basis.³⁴

The volume of storm water runoff to be intercepted at an off-site mitigation project is equal to the difference between the SWQDv and the volume of storm water runoff that can be *reliably retained* on the project site. The estimate of the volume that can be reliably retained on-site shall be based on conservative assumptions including permeability of soils under saturated conditions. When rainfall harvest and use is linked to irrigation demand, the demand shall be estimated based on conditions that exist during the wet weather, winter season.

Mitigation at off-site projects shall be designed to provide equal or greater water quality protection to the surface waters within the same subwatershed as the proposed project. Preferably, the mitigation site will be located within the same Hydrologic Unit Code (HUC)-12 drainage area as the proposed new development or re-development. However, the mitigation project may be located within the expanded HUC-10 drainage area, if approved by the Executive Officer of the Regional Water Board.

As described in the Ventura County Technical Guidance Manual, a biofiltration system as defined in this Order, including Attachment L, allows for incidental interception of approximately 40 percent of the treatment volume and treatment of the remaining volume through filtration, and aerobic and anaerobic degradation. The effectiveness of the biofiltration system is greatly impacted by the volume of storm water runoff that is intercepted through incidental infiltration. For this reason, biofiltration as defined in this Order, does not include flow-through planter box or vault

³⁴ Ventura Countywide Stormwater Management Program. 2011. Ventura Technical Guidance Manual, Manual Update, 2011. Appendix D. July 13, 2011.

type systems with impervious bottom layers. In addition, biofiltration systems as defined in this Order, must meet the specifications for drain placement and planting media provided in Attachment L if they are to be credited as meeting the water quality/flow reduction requirements of the Alternative Compliance Measures of this Order. Attachment L provides a compilation of recent information contained in the Contra Costa County C3 Guidebook and Order R2-2011-083, adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 28, 2011. These specifications are based on experiences in the San Francisco Bay Region and are designed to ensure optimum pollutant removal and to prevent premature failure of infiltration components of the biofiltration system.

- iv. Water Quality Mitigation Criteria (Part VI.D.6.c.iv.) When off-site mitigation is performed, the storm water runoff from the project site must be treated prior to discharge. Volume-based treatment BMPs are to be sized to treat the runoff from the 85th percentile, 24-hour storm event, as described above for storm water retention BMPs. Flow through treatment BMPs are to be sized based on a rainfall intensity of 0.2 inches per hour or the one year, one-hour rainfall intensity as determined from the Los Angeles County isohyetal map, whichever is greater. A minimum flow design of 0.2 inches per hour is consistent with Order No. 01-182 and is included to prevent back sliding. The one year, one-hour rainfall intensity is the flow requirement specified in the Los Angeles River Trash Total Maximum Daily Loads (TMDL) and other Trash TMDLs established in the Region. The Los Angeles County isohyetal map of the one-year, one-hour storm intensity provides an accurate measure of variable storm intensity throughout the County. The one-year, one-hour rain intensity within the County ranges from approximately 0.2 inch/hour to 1.1 inches per hour.
- v. Hydromodification (Flow/ Volume/ Duration Control Criteria (Part VI.D.6.v.). New development/re-development projects located in a drainage to a natural stream/creek/river water body shall be required to meet the water quality/flow reduction criteria and/or hydromodification control criteria, whichever are more stringent. (Hydromodification controls do not apply to discharges to lakes, estuaries or to the Pacific Ocean as these types of water bodies are not susceptible to hydromodification impacts.) This Order provides Interim Hydromodification Control Criteria to be employed until the State Water Board or Regional Water Board adopts a final Hydromodification Policy. The purpose of the hydromodification controls is to preserve or restore pre-development hydrology.

Part VI.D.6.v.(b) of this Order describes New Development/Redevelopment projects that are exempted from hydromodification controls. These projects include maintenance and replacement activities and other projects that do not increase EIA within the subwatershed and therefore are not expected to add to the hydromodification effects. Also exempted are projects located within drainages to waterbodies that are not susceptible to channel erosion or other hydromodification effects.

This Order anticipates the issuance of a State-wide Hydromodification criteria or guidance within the term of this Order, but provides interim criteria for New Development/Re-development projects that are permitted pending the issuance of State-wide Guidance. This Order also identifies preliminary tasks to be conducted within 24 months after the effective date of this Order. The results of these preliminary tasks will support the development of a final Subwatershed Hydromodification Plan. The final Subwatershed Hydromodification Plan must be completed within 12 months after the issuance of the State-wide Guidance, unless the compliance period is extended by the Executive Officer of the Regional Water Board.

This Order offers three options for meeting the interim hydromodification controls for projects that will disturb greater than 1 acre but less than 50 acres:

- The project is designed to retain the storm water runoff from the 95th percentile, 24-hour-hour storm. This criterion is based on the recommendations from the USEPA's *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (USEPA, 2009).
- The runoff flow rate, volume, velocity and duration does not exceed the pre-development condition for the 2-year, 24-hour rainfall event. Research has determined that the maximum point of the effective work curve occurs in the 1 to 2-year frequency (Leopold, 1964, as cited in the South Orange County Hydromodification Plan, 2011)³⁵. Furthermore, the effects of development are greatest during smaller storm events. Under natural conditions, the storm water runoff from smaller storms would have been largely intercepted by vegetation, canopy, infiltration and/or evapotranspiration. During large storms, the soils become saturated and runoff occurs even under natural conditions.
- The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by the Hydromodification Analysis Study and the Equation presented in Attachment J. This provision is the same as the requirement in the Ventura County MS4 permit (Order No. R4-2010-0108). By maintaining an Ep of approximately 1, the bed sediment of the channel is in an equilibrium state.

³⁵ South Orange County. 2011. South Orange County Hydromodification Management Plan. < http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/docs/oc_permit/updates_031212/South_Orange_County%20HMP.pdf Accessed April 25, 2012.

For projects disturbing more than 50 acres, compliance with the interim controls may be achieved by similar means. However, the plans must be supported by more comprehensive hydrologic modeling.

The elements of the Interim Subwatershed Hydromodification Plan are:

- Screening to assess which subwatersheds exhibit changes in geomorphology.
- Identify natural drainage systems within the subwatershed that are susceptible to hydromodification impacts,
- Identify areas critical to the hydrology (e.g., groundwater recharge areas, riparian buffers and wetlands) of the subwatershed and identify potential protection strategies for such areas,
- Conduct or access bioassessment monitoring data to assess whether aquatic life uses are being fully supported,
- Prepare preliminary protection strategies for subwatersheds that are fully supporting aquatic life beneficial uses,
- Prepare preliminary retrofit strategies for subwatersheds that exhibit the effects of hydromodification and are not fully supporting aquatic life beneficial uses,
- Identify candidate reference sub-watersheds that are supporting aquatic life beneficial uses and develop a flow duration curve that may serve as a standard for flow duration controls in water bodies that have aquatic life impairments linked to changes in the flow regime. This approach is as described in the recently approved OEPA, Grand River (lower) Flow Regime TMDL.

7. Development and Construction Program

a. Introduction

Soil disturbing activities during construction and demolition exacerbate sediment losses. Sediment is a primary pollutant impacting beneficial uses of watercourses. Sediments, and other construction activity pollutants must be properly controlled to reduce or eliminate adverse impacts.

b. Legal Authority

40 CFR section 122.34(b)(4) states that with respect to construction site storm water runoff control for small MS4s, which is analogous to that for large MS4s:

"(i) [the permittee] must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb

one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with § 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites. (ii) Your program must include the development and implementation of, at a minimum: (A) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law; (B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices; (C) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality; (D) Procedures for site plan review which incorporate consideration of potential water quality impacts; (E) Procedures for receipt and consideration of information submitted by the public, and (F) Procedures for site inspection and enforcement of control measures."

The inspection requirements for construction sites contained in this Order are also based on the requirements found in Order No. 01-182. As noted above in Part VI.C.5.a, the inspection requirements contained in Order No. 01-182 for construction sites were the subject of litigation between several permittees and the Regional Water Board. As provided in more detail above, the Los Angeles Superior Court upheld the inspection requirements County for industrial/commercial facilities and construction sites in Order No. 01-182, finding that the "[t]he Permit contains reasonable inspection requirements for these types of facilities." (In re L.A. Cnty. Mun. Storm Water Permit Litig., No. BS 080548 (L.A. Super. Ct. Mar. 24, 2005), at 17.) As also noted above, the Superior Court also rejected the permittees' claims that the requirements in Order No. 01-182 shifted the Regional Water Board's inspection responsibility under State Water Board issued general NPDES permits for these types of facilities onto the local agencies, finding that "[r]equiring permittees to inspect commercial and industrial facilities and construction sites is authorized under the Clean Water Act, and both the Regional Board and the municipal permittees or the local government entities have concurrent roles in enforcing the industrial, construction and municipal permits. The Court finds that the Regional Board did not shift its inspection responsibilities to Petitioners." (Id. at 17-18.)

c. Construction Activity Applicability

Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre.

Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale of one or more acres of disturbed land surface.

Construction activity related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to USEPA regulations, such as dairy barns or food processing facilities.

Construction activity associated with linear underground/overhead project (LUPs) including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.

Storm water discharges from dredge spoil placement that occur outside of U.S. Army Corps of Engineers jurisdiction³⁶ (upland sites) and that disturb one or more acres of land surface from construction activity are covered by this General Permit. Construction projects that intend to disturb one or more acres of land within the jurisdictional boundaries of a CWA section 404 permit should contact the appropriate Regional Water Board to determine whether this permit applies to the project.

d. Development Construction Program Implementation

Permittees must implement a construction program that applies to all activities involving soil disturbance with the exception of agricultural activities. Minimum requirements have been established for construction activity less than one acre and for those activities equal or greater than one acre. Activities covered by the permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving, and LUPs. The construction program should be designed to: (1) prevent illicit construction-related discharges of pollutants into the MS4 and receiving waters; (2) implement and maintain structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites; (3) reduce construction site discharges of pollutants to the MS4 to the MEP; and (4) prevent

³⁶ A construction site that includes a dredge and/or fill discharge to any water of the United States (e.g., wetland, channel, pond, or marine water) requires a permit from the U.S. Army Corps of Engineers pursuant to CWA section 404 and a Water Quality Certification from the Regional Water Board or State Water Board pursuant to CWA section 401.

construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

Each permittee shall use an site system to track grading permits, encroachment permits, demolition permits, building permits, or construction permits (and any other municipal authorization to move soil and/ or construct or destruct that involves land disturbance) issued by each permittee. To satisfy this requirement, the use of a database or GIS system is recommended.

For construction activity equal or greater than one acre, the Permittee must establish review procedures for construction site plans to determine potential water quality impacts and ensure the proposed controls are adequate. These procedures should include the preparation and submission of an Erosion and Sediment Control Plan (ESCP) containing elements of a Storm Water Pollution Prevention Plan (SWPPP) prior to issuance of a grading or building permit as well as a review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. The requirement that ESCP/SWPPPs must be developed by a Qualified SWPPP Developer (QSD) is new for this iteration of the permit. This requirement ensures the development of high quality ESCP/SWPPPs that protect water quality to the MEP.

A SWPPP must be appropriate for the type and complexity of a project and will be developed and implemented to address project specific conditions. Some projects may have similarities or complexities, yet each project is unique in its progressive state that requires specific description and selection of BMPs needed to address all possible generated pollutants. The Permittee must ensure that construction site operators select and implement appropriate erosion and sediment control measures to reduce or eliminate the impacts to receiving waters. To help guide their Construction Program and ensure consistency regarding BMP selection, the Permit requires the Permittee to develop or adopt BMP standards for a range of construction related activities. The list of activities is based on California Stormwater Quality Association's (CASQA) Construction BMP handbook. The ESCP/SWPPP must include the rationale used for selecting or rejecting BMPs. The project architect, or engineer of record, or authorized gualified designee, must sign a statement on the ESCP/SWPPP to the effect:

"As the architect/ engineer of record, I have selected, appropriate BMPs to effectively minimize the negative impact of the project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity."

The Permittee is responsible for conducting inspection and enforcement of erosion and sediment control measures at specified times and frequencies during construction including prior to land disturbance, during grading and land development, during streets and utilities activities, during vertical construction, and during final landscaping and site stabilization. The Permittees' Municipal

Inspectors must be adequately trained and Permittees are encouraged to offer opportunities for inspectors to enroll in the State Water Board sponsored Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner (QSP) certification program. A progressive enforcement policy has been integrated into this iteration of the permit to ensure that adequate penalties are in place and to ensure the protection of receiving water quality.

Prior to approving and/ or signing off for occupancy and issuing the Certificate of Occupancy for all construction projects subject to post-construction controls, each permittee shall inspect the constructed site design, source control and treatment control BMPs to verify that they have been constructed in compliance with all specifications, plans, permits, ordinances, and this Order. The initial/ acceptance BMP verification inspection does not constitute a maintenance and operation inspection.

The Permittee must ensure that staff has proper training. In addition, the Permittee must develop and distribute training and educational material and conduct outreach to the development community. To ensure that the construction program is followed, construction operators must be educated about site requirements for control measures, local storm water requirements, enforcement activities, and penalties for non-compliance.

8. Public Agency Activities Program

a. Background

Publically-owned or operated facilities serve as hubs of activity for a variety of municipal staff from many different departments. Some municipalities will have one property at which all activities take place (e.g., the municipal maintenance yard), whereas others will have several specialized facilities such as animal control facilities, chemical storage facilities, composting facilities, equipment storage and maintenance facilities, fueling facilities, hazardous waste disposal facilities, incinerators, landfills, materials storage yards, pesticide storage facilities, public buildings, public parking lots, public golf courses, public swimming pools, public parks, public marinas, recycling facilities, solid waste handling and transfer facilities, and flood control facilities.

b. Program Implementation

i. Public Construction Activities Management

The Permittee is required to implement BMPs and comply with the Planning and Land Development Program requirements in Part VI.D.6 of this Order and the Development Construction Program requirements in Part VI.D.7 of this Order at applicable Permittee-owned or operated (i.e., public or Permittee sponsored) construction projects. These requirements ensure that Permittee-owned or operated construction and development occurs in an equally protective manner as private development. The Permittee is also required to implement an effective combination of erosion and sediment

control BMPs from Table 13 (see Construction Development Program, minimum BMPs) at those public sites that disturb less than one acre of soil. Last, the Permittee is required to obtain separate coverage under the State Water Board's Construction General NPDES Permit for all Permittee-owned or operated construction sites that require coverage.

ii. Public Facility Inventory

A comprehensive list of publically-owned or operated facilities will help staff responsible for storm water compliance build a better awareness of their locations within the MS4 service area and their potential to contribute storm water pollutants. The inventory should include information on the location, contact person at the facility, activities performed at the facility, and whether the facility is covered under an industrial general storm water permit or other individual or general NPDES permit, or any applicable waivers issued by the Regional or State Water Board pertaining to storm water discharges. Incorporation of GIS into the inventory is encouraged. The facility inventory should be updated at least twice during the permit term and will serve as a basis for setting up periodic facility assessments and developing, where necessary, facility storm water pollution prevention plans. By developing an inventory of Permittee-owned facilities that are potential sources of storm water pollution helps to ensure that these facilities are monitored and receiving water quality is protected.

iii. Inventory of Existing Development for Retrofitting Opportunities

Each Permittee is required to maintain an updated inventory of all Permittee-owned or operated (i.e., public) facilities within its jurisdiction that are potential sources of storm water pollution. This requirement is similar to the requirement of Order No. 01-182. In this Order, the incorporation of facility information into a GIS is recommended as this has been proven effective for effectively inventory and management of facilities and associated BMPs. Given that facility operation, condition, and practices can change over a five year period, the Permittees are required to update its inventory at least twice during the term of this Order.

In addition to developing an inventory of publically-owned or operated facilities, in this Order, Permittees are required to develop an inventory of existing development for retrofitting opportunities. The intention of adding this requirement to the permit is to encourage the use of retrofit projects that reduce storm water pollutants into the MS4 that are a result of impacts from existing development. Permittees are also required to evaluate and rank these retrofitting opportunities.

iv. Public Agency Facility and Activity Management

Each Permittee is required to manage its facilities in accordance with the State Water Board's Industrial General NPDES Permit, where applicable, and shall ensure the implementation and maintenance of appropriate BMPs

at all facilities with a potential to pollute stormwater. Therefore, Permitees shall obtain separate coverage under the State Water Board's Industrial General NPDES Permit for all Permittee-owned or operated facilities where industrial activities are conducted that require coverage under the Industrial General NPDES Permit and shall implement and maintain activity specific BMPs listed in Table 19 (BMPs for Public Agency Facilities and Activities).

Many municipalities use third-party contractors to conduct municipal maintenance activities in lieu of using municipal employees. Contractors performing activities that can affect storm water quality must be held to the same standards as the Permittee. Not only must these expectations be defined in contracts between the Permittee and its contractors, but the Permittee is responsible for ensuring, through contractually-required documentation or periodic site visits, that contractors are using storm water controls and following standard operating procedures. Therefore, the Permittee shall ensure all contractors hired by the Permittee to conduct Public Agency Activities including, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair shall be contractually required to implement and maintain the activity specific BMPs listed in Table 18.

v. Vehicle and Equipment Washing

Specific BMPs for all fixed vehicle and equipment washing; including fire fighting and emergency response vehicles have been incorporated into this Order and must be implemented. In addition, specific BMPs for wash waters from vehicle and equipment washing. These requirements effectively prohibit the occurrence of illicit discharges resulting from unauthorized washing activities.

vi. Landscape, Park, and Recreational Facilities Management

Specific BMPs for public right-of-ways, flood control facilities and open channels, lakes and reservoirs, and landscape, park, and recreation facilities and activities have been included this Order, similar to those in Order No. 01-182 and the more recently adopted Ventura County MS4 Permit, and must be implemented. These requirements are reflective of current environmentally responsible practices.

vii. Storm Drain Operation and Maintenance

Specific BMPs for storm drain operations and maintenance have been carried over from Order No. 01-182 into this Order.

Permittees must prioritize catch basins for cleaning activities based on the volume of trash or debris.

The materials removed from catch basins may not reenter the MS4. The material must be dewatered in a contained area and the water treated with an appropriate and approved control measure or discharged to the sanitary sewer. The solid material will need to be stored and disposed of properly to avoid discharge during a storm event. Some materials removed from storm drains and open channels may require special handling and disposal, and may not be authorized to be disposed of in a landfill.

viii. Streets, Roads, and Parking Facilities Maintenance

Permittees must prioritize streets and/or street segments for sweeping activities based on the volume of trash generated on the street or street segments. Based on these established priorities, Permittees must conduct street sweeping twice per month on the highest priority streets (Priority A), once per month on the medium priority streets (Priority B), and as needed but not less than once per year on the lowest priority streets (Priority C). In addition parking facilities must be cleaned using street sweeping equipment no less than two times per month and inspect no less than two times per month to determine if cleaning is necessary.

Specific BMPs for road reconstruction have been incorporated into this Order and must be followed during road repaying activities.

ix. Emergency Procedures

Permittees are required to conduct repairs of essential public service systems and infrastructure in emergency situations. These requirements ensure the protection of water quality. BMPs must be implemented to reduce the threat to water quality and the Regional Water Board must be notified of the occurrence, an explanation of the circumstances and measures taken to reduce the threat to water quality within 30 business days after the emergency has passed.

x. Municipal Employee and Contractor Training

Permittees are required to ensure that training is provided for employees and contractors that have job duties or participate in activities that have the potential to affect storm water quality. The training should promote a general understanding of the potential for activities to pollute storm water and include information on the identification of opportunities to require, implement, and maintain BMPs associated with the activities they perform. In addition training specific to employees or contractors that use or have the potential to use pesticides or fertilizers should be provided. This training should instruct employees and contractors on the potential for pesticiderelated surface water toxicity, the proper use, handling and disposal of pesticides, the least toxic methods of pest prevention and control, and the overall reduction of pesticide use.

Many municipalities use third-party contractors to conduct municipal maintenance activities in lieu of using municipal employees. Contractors performing activities that can affect storm water quality must be held to the same standards as the Permittee. Not only must these expectations be defined in contracts between the Permittee and its contractors, but the Permittee is responsible for ensuring, through contractually-required documentation or periodic site visits, that contractors are using storm water controls and following standard operating procedures.

9. Illicit Connection and Illicit Discharge Elimination Program

a. Legal Authority

A proposed management program "shall be based on a description of a program, including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer," per 40 CFR section 122.26(d)(2)(iv)(B). A Permittee must include in its proposed management program "a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system," per subsection (1) of the above federal regulation.

USEPA stormwater regulations define "illicit discharge" as "any discharge to a municipal separate storm sewer that is not composed entirely of stormwater" except discharges resulting from fire fighting activities and discharges from NPDES permitted sources (see 40 CFR section 122.26(b)(2)). The applicable regulations state that the following non-stormwater discharges may be allowed if they are not determined to be a significant source of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR section 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. If, however, these discharges are determined to be a significant source of pollution then they must be prohibited.

Examples of common sources of illicit discharges in urban areas include apartments and homes, car washes, restaurants, airports, landfills, and gas stations. These so called "generating sites" discharge sanitary wastewater, septic system effluent, vehicle wash water, washdown from grease traps, motor oil, antifreeze, gasoline and fuel spills, among other substances. Although these illicit discharges can enter the storm drain system in various ways, they generally result from either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system, spills, or "midnight dumping"). Illicit discharges can be further divided into those discharging continuously and those discharging intermittently.

b. Illicit Discharge Source Investigation and Elimination

Section 402(p)(3)(B)(ii) of the CWA requires MS4 permits to "effectively prohibit non-stormwater discharges into the storm sewers." The permit implements this requirement, in part by requiring the development of procedures to investigate and eliminate illicit discharges. The permittee must develop a clear, step-by-step procedure for conducting the investigation of illicit discharges. The procedure must include an investigation protocol that clearly defines what constitutes an illicit discharge and what steps shall be taken to identify and eliminate its source. In many circumstances, sources of intermittent, illicit discharges are very difficult to locate, and these cases may remain unresolved. The permit requires that each case be conducted in accordance with the procedures developed to locate the source and conclude the investigation, after which the case may be considered closed. These procedures should be completed per the Progressive Enforcement Policy identified in Part VI.D.2 of this Order and should include enforcement as necessary to ensure the elimination of the illicit discharge/connection.

Illicit discharges may also originate in upstream jurisdictions and therefore this Order establishes procedures for communicating with upstream entities and providing information that may prove helpful in their investigation of its source(s).

If a Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the Permittee shall provide for diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the Permittee shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion. The goal of these requirements is to provide a permanent solution for ongoing illicit discharges.

c. Identification and Response to Illicit Connections

Illicit connections to the MS4 can lead to the direct discharge or infiltration of sewage or other prohibited discharges into the MS4. Permitees have been conducting illicit connection screening throughout the term of Order No. 01-182 and this Order requires a continuation of response efforts once an illicit connection is identified. This Order establishes unique obligations for the LACFCD and for the individual Permitees. The requirements for LACFCD are based on the unique obligations and infrastructure of a regional flood control district. Requirements for the individual Permittees require the investigation and

follow-up of all illicit connections within 21 days of identification and elimination within 180 days.

d. Public Reporting of Non-Storm Water Discharges and Spills

Each Permittee needs to promote a program to help in the identification and termination of illicit discharges. This Order establishes requirements for the Permitees, individually or as a group, to develop public education campaigns and reporting numbers which are intended to promote public reporting of illicit discharges. Specifically, a stormwater hotline can be used to help permittees become aware of and mitigate spills or dumping incidents. Spills can include everything from an overturned gasoline tanker to sediment leaving a construction site to a sanitary sewer overflow entering into a storm drain. Permittees must set up a hotline consisting of any of the following (or combination thereof): a dedicated or non-dedicated phone line, E-mail address, or website.

This Order also requires development of written procedures for receiving and responding to calls from the public and for maintaining documentation about reported illicit discharges and spills and their investigation and remedy. These requirements are intended to ensure that reliable and consistent practices are deployed to address this persistent problem.

e. Spill Response Plan

Spills, leaks, sanitary sewer overflows, and illicit dumping or discharges can introduce a range of stormwater pollutants into the storm system. Prompt response to these occurrences is the best way to prevent or reduce negative impacts to waterbodies. The permittee must develop a spill response plan that includes an investigation procedure similar to or in conjunction with the investigation procedures developed for illicit discharges in general. Often, a different entity might be responsible for spill response in a community (i.e. fire department), therefore, it is imperative that adequate communication exists between stormwater and spill response staff to ensure that spills are documented and investigated in a timely manner.

f. Illicit Connection and Illicit Discharge Education and Training

The permit requires each Permittee to train field staff, who may come into contact or observe illicit discharges, on the identification and proper procedures for reporting illicit discharges. Field staff to be trained may include, but are not limited to, municipal maintenance staff, inspectors, and other staff whose job responsibilities regularly take them out of the office and into areas within the MS4 area. Permittee field staff are out in the community every day and are in the best position to locate and report spills, illicit discharges, and potentially polluting activities. With proper training and information on reporting illicit discharges easily accessible, these field staff can greatly expand the reach of the IDDE program.

D. Total Maximum Daily Load Provisions

Clean Water Act section 303(d)(1)(A) requires each State to conduct a biennial assessment of its waters, and identify those waters that are not achieving water quality standards. These waters are identified as impaired on the State's Clean Water Act section "303(d) List" of water quality limited segments. The Clean Water Act also requires States to establish a priority ranking for waters on the 303(d) List and to develop and implement Total Maximum Daily Loads (TMDLs) for these waters. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocates the acceptable pollutant load to point and nonpoint sources. The elements of a TMDL are described in 40 CFR sections 130.2 and 130.7. A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR § 130.2). Regulations further require that TMDLs must be set at "levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR section 130.7(c)(1)). The regulations at 40 CFR section 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters. Essentially, TMDLs serve as a backstop provision of the CWA designed to implement water quality standards when other provisions have failed to achieve water quality standards.

Upon establishment of TMDLs by the State or the USEPA, the State is required to incorporate, or reference, the TMDLs in the State Water Quality Management Plan (40 CFR sections 130.6(c)(1) and 130.7). The Regional Water Board's Basin Plan, and applicable statewide plans, serves as the State Water Quality Management Plan governing the watersheds under the jurisdiction of the Regional Water Board. When adopting TMDLs as part of its Basin Plan, the Regional Water Board includes, as part of the TMDL, a program for implementation of the WLAs for point sources and load allocations (LAs) for nonpoint sources.

TMDLs are not self-executing, but instead rely upon further Board orders to impose pollutant restrictions on discharges to achieve the TMDL's WLAs. Federal regulations require that NPDES permits must include conditions consistent with the assumptions and requirements of any available waste load allocation (40 CFR section 122.44(d)(1)(vii)(B)). Similarly, state law requires both that the Regional Water Board implement its Basin Plan when adopting waste discharge requirements (WDRs) and that NPDES permits apply "any more stringent effluent standards or limitations necessary to implement water quality control plans..." (Cal. Wat. Code §§ 13263, 13377).

An NPDES permit should incorporate the WLAs as numeric WQBELs, where feasible. Where a non-numeric permit limitation is selected, such as BMPs, the permit's administrative record must support the expectation that the BMPs are sufficient to achieve the WLAs. (40 CFR §§ 124.8, 124.9, and 124.18.) The USEPA has published

guidance for establishing WLAs for storm water discharges in TMDLs and their incorporation as numeric WQBELs in MS4 permits.³⁷

As required, permit conditions are included in this Order consistent with the assumptions and requirements of the available WLAs assigned to MS4 discharges, which have been established in thirty-three TMDLs. The Regional Water Board adopted twenty-five (25) TMDLs and USEPA established seven (7) TMDLs that assign WLAs to MS4 Permittees within the County of Los Angeles. In addition, the Santa Ana Regional Water Board adopted a TMDL that assigns WLAs to the Cities of Pomona and Claremont. The TMDLs included in this Order along with the adoption and approval dates are listed in the table below. Permit conditions for two of these TMDLs – the Marina del Rey Harbor Bacteria TMDL and the Los Angeles River Watershed Trash TMDL – were previously incorporated into Order No. 01-182 during re-openers in 2007 and 2009, respectively (Orders R4-2007-0042 and R4-2009-0130). TMDLs are typically developed on a watershed or subwatershed basis, which facilitates a more accurate assessment of cumulative impacts of pollutants from all sources. An overview of each Watershed Management Area, including the TMDLs applicable to it, is provided below.

TMDLs with Resolution Numbers, Adoption Dates and Effective Dates

³⁷ USEPA (2010) "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those TMDLs'." Issued by James A. Hanlon, Director, Office of Wastewater Management and Denise Keehner, Director, Office of Wetlands, Oceans and Watersheds. November 12, 2010.

Greater Los Angeles County Municipal Separate Storm Sewer System

ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE		
Santa Clara River Watershed Management Area									
Santa Clara River Nitrogen Compounds TMDL	2003-011	8/7/2003	2003-0073	11/19/2003	2/27/2004	3/18/2004	3/23/2004		
Upper Santa Clara River Chloride TMDL	2008-012	12/11/2008	2009-0077	10/20/2009	1/26/2010	4/6/2010	4/6/2010		
Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only)	2007-009	6/7/2007	2007-0073	12/4/2007	2/8/2008	2/27/2008	3/6/2008		
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL	R10-006	7/8/2010	2011-0048	10/4/2011	12/19/2011	1/13/2012	3/21/2012		
Santa Monica Bay Watershed Management Area									
Santa Monica Bay Beaches Bacteria TMDL (Dry Weather)	2002-004	1/24/2002	2002-0149	9/19/2002	12/9/2002	6/19/2003	7/15/2003		
Santa Monica Bay Beaches Bacteria TMDL (Wet Weather)	2002-022	12/12/2002	2003-0022	3/19/2003	5/20/2003	6/19/2003	7/15/2003		
Santa Monica Bay Nearshore and Offshore Debris TMDL	R10-010	11/4/2010	2011-0064	12/6/2011	3/15/2012	3/20/2012	3/20/2012		
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)	N/A	N/A	N/A	N/A	N/A 🗛	3/26/2012	N/A		
Malibu Creek Subwatershed									
Malibu Creek and Lagoon Bacteria	2004-019R	12/13/2004	2005-0072	9/22/2005	12/1/2005	1/10/2006	1/24/2006		
Malibu Creek Watershed Trash TMDL	2008-007	5/1/2008	2009-0029	3/17/2009	6/16/2009	6/26/2009	7/7/2009		
Malibu Creek Watershed Nutrients TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A V	3/21/2003	N/A		
Ballona Creek Subwatershed									
Ballona Creek Trash TMDL	2004-023	3/4/2004	2004-0059	9/30/2004	2/8/2005	N/A	8/11/2005		
Ballona Creek Estuary Toxic Pollutants TMDL	2005-008	7/7/2005	2005-0076	10/20/2005	12/15/2005	12/22/2005	1/11/2006		
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL	2006-011	6/8/2006	2006-0092	11/15/2006	2/20/2007	3/26/2007	4/27/2007		

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TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE	
Ballona Creek Metals TMDL	2007-015	9/6/2007	2008-0045	6/17/2008	10/6/2008	10/29/2008	10/29/2008	
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
Marina del Rey Subwatershed								
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	2003-012	8/7/2003	2003-0072	11/19/2003	1/30/2004	3/18/2004	3/18/2004	
Marina del Rey Harbor Toxic Pollutants TMDL	2005-012	10/6/2005	2006-0006	1/13/2006	3/13/2006	3/16/2006	3/22/2006	
Dominguez Channel and Greater Harbors Waters Watershed Management Area								
Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)	2004-011	7/1/2004	2004-0071	10/21/2004	1/5/2005	3/1/2005	3/10/2005	
Machado Lake Trash TMDL	2007-006	6/7/2007	2007-0075	12/4/2007	2/8/2008	2/27/2008	3/6/2008	
Machado Lake Nutrient TMDL	2008-006	5/1/2008	2008-0089	12/2/2008	2/19/2009	3/11/2009	3/11/2009	
Machado Lake Pesticides and PCBs TMDL	R10-008	9/2/2010	2011-0065	12/6/2011	^{2/29/2012}	3/20/2012	3/20/2012	
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	R11-008	5/5/2011	2012-0008	2/7/2012	3/21/2012	3/23/2012	3/23/2012	
Los Angeles River Watershed Management Area								
Los Angeles River Watershed Trash TMDL	2007-012	8/9/2007	2008-0024	4/15/2008	7/1/2008	7/24/2008	9/23/2008	
Los Angeles River Nitrogen Compounds and Related Effects TMDL	2003-016	12/4/2003	2004-0014	3/24/2004	9/27/2004	N/A	9/27/2004	
Los Angeles River and Tributaries Metals TMDL	R10-003	5/6/2010	2011-0021	4/19/2011	7/28/2011	11/3/2011	11/3/2011	
Los Angeles River Bacteria TMDL	R10-007	7/9/2010	2011-0056	11/1/2011	3/21/2012	3/23/2012	3/23/2012	
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	

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TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE	
Los Angeles Area Lakes TMDLs (USEPA established for Lake Calabasas, Echo Park Lake, and Peck Road Park Lake)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
San Gabriel River Watershed Management Area								
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2007	N/A	
Legg Lake Trash TMDL	2007-010	6/7/2007	2007-0074	12/4/2007	2/5/2008	2/27/2008	3/6/2008	
Los Angeles Area Lakes TMDLs (USEPA established for Legg Lake and Puddingstone Reservoir)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
Los Cerritos Channel and Alamitos Bay Watershed Management Area								
Los Cerritos Channel Metals TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/17/2010	N/A	
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	R09-005	10/1/2009	2010-0056	11/16/2010	5/6/2011	6/14/2011	7/28/2011	
Middle Santa Ana River Watershed Management Area (Santa Ana Region TMDL)								
Middle Santa Ana River Watershed Bacteria Indicator TMDL	R8-2005-0001	8/26/2005	2006-0030	5/15/2006	9/1/2006	5/16/2007	5/16/2007	

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Santa Clara River Watershed Management Area. The Santa Clara River and its tributaries drain a watershed area of 1,634 square miles (sq. miles) (Figure B-1). Santa Clara River Reaches 1, 2, 3, 4A, 4B and major tributaries Santa Paula, Sespe and Piru Creeks are in Ventura County. Santa Clara River Reaches 5, 6, 7, 8 and major tributaries Castaic, San Francisquito, and Bouquet Canyon Creeks are in Los Angeles County. About 40% of the watershed, the Upper Santa Clara River, is located in County of Los Angeles. Approximately, 75% of the Upper Santa Clara River watershed is open space used for recreation in the Angeles National Forest. The remainder of the upper portion of the watershed is characterized by a mixture of residential, mixed urban, and industrial land uses with low density residential more common in the uppermost areas of the watershed, while high density residential is more prevalent in the City of Santa Clarita.

Various reaches of the Santa Clara River are on the 2010 CWA Section 303(d) List of impaired water bodies for nitrogen, bacteria, chloride, and trash (in lakes), among other pollutants. The excess nitrogen compounds are causing impairments to the WARM, WILD, and GWR designated beneficial uses of the Santa Clara River in Reaches 3, 7 and 8. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses for the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. The excessive levels of chloride are impairing the AGR and GWR designated beneficial uses of the Upper Santa Clara River Reaches 4A, 4B, 5 and 6. The trash in Lake Elizabeth is causing impairments to the WARM, WILD, RARE, REC-1 and REC-2 designated beneficial uses.

TMDLs have been adopted by the Regional Water Board to address the impairments due to nitrogen, bacteria and chloride in the Upper Santa Clara River Watershed and for trash in Lake Elizabeth. Each of these TMDLs identifies MS4 discharges as a source of pollutants and assigns allocations to MS4 discharges. In the nitrogen compounds TMDL, storm water discharges were identified as potentially contributing nitrogen loads. Data from land use monitoring conducting under the LA County MS4 Permit from 1994-1999 indicate some concentrations of ammonia from commercial land uses in excess of the 30-day average concentration based WLA of 1.75 mg/l, and potential concentrations of nitrate-N and nitrite-N from residential land uses in excess of the WLA of 6.8 mg/l. Recent data from the 2010-11 annual monitoring report indicate low levels of ammonia and nitrite at the mass emissions station (S29) in the Santa Clara River, and concentrations of nitrate-N ranging from 1.38-1.66 mg/l in dry weather and 0.015-1.86 mg/I in wet weather. In the chloride TMDL, major point sources are assigned a WLA of 100 mg/l. Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/l, while more recent data from the mass emissions station (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather. For the bacteria TMDL, the Regional Water Board found that the significant contributors of bacteria loading to the Santa Clara River are discharges of storm water and non-storm water from the MS4. For the trash TMDL, discharges from the MS4 are sources of trash discharged to Lake Elizabeth.

Santa Monica Bay Watershed Management Area. The Santa Monica Bay Watershed Management Area (WMA) encompasses an area of 414 sq. miles (Figure B-2). Its

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borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. A narrow strip of land between Playa del Rey and Palos Verdes drains to the Bay south of Ballona Creek. The WMA includes several subwatersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. SCAG land use data from 2005 shows 62% of the area is open space, high density residential is 17% of the area, and low density residential is 2.3% of the area. Commercial and industrial land uses total 6% of the area and are found in all but a handful of the subwatersheds.

Many of the Santa Monica Bay beaches were identified on the 1998 CWA Section 303(d) List of impaired water bodies for high coliform counts and beach closures. Santa Monica Bay offshore and nearshore is on the 2010 CWA Section 303(d) List of impaired water bodies for debris, DDTs, PCBs and sediment toxicity. The elevated bacterial indicator densities during both dry and wet weather are causing impairments of the REC-1 and REC-2 designated beneficial uses of the Santa Monica Bay beaches. The debris and elevated concentrations of DDT and PCBs are causing impairments to the IND, NAV, REC-1, REC-2, COMM, EST, MAR, BIOL, MIGR, WILD, RARE, SPWN, SHELL, and WET designated beneficial uses of the Santa Monica Bay.

TMDLs have been adopted by the Regional Water Board and USEPA for bacteria at Santa Monica Bay Beaches, and for debris, DDTs, PCBs and sediment toxicity in Santa Monica Bay. In the bacteria TMDL, the Regional Water Board determined that discharges of storm water and non-storm water from the MS4 are the primary source of elevated bacterial indicator densities to Santa Monica Bay beaches during dry and wet weather. In the debris TMDL, the Regional Water Board determined that most of the land-based debris is discharged to the marine environment through the MS4. In the DDT and PCBs TMDL, USEPA determined that although DDT is no longer used, it persists in the environment, adhering strongly to soil particles. The manufacture of PCBs is no longer legal, but PCBs also persist in the environment and are inadvertently produced as a result of some manufacturing processes. Both DDT and PCBs are transported in contaminated sediments via urban runoff through the MS4 to Santa Monica Bay.

The Malibu Creek subwatershed drains an area of about 109 square miles (Figure B-2a). Approximately two-thirds of this subwatershed lies in Los Angeles County and the remaining third in Ventura County. Much of the land is part of the Santa Monica Mountains National Recreation Area and is under the purview of the National Parks Service. The watershed borders the eastern portion of Ventura County to the west and north and Los Angeles River watershed to the east. Major tributaries include Cold Creek, Lindero Creek, Las Virgenes Creek, Medea Creek, and Triunfo Creek. Located at the end of and receiving flows from Malibu Creek is the 40-acre Malibu Lagoon. The Malibu Creek subwatershed land uses are 88% open space, 3% commercial/light industry, 9% residential and less than 1% public.

The Malibu Creek Watershed is on the 2010 CWA Section 303(d) List of impaired water bodies for bacteria, nutrients, and trash. Elevated bacterial indicator densities are

causing impairment of the REC-1 and REC-2 designated beneficial uses of Malibu Creek, Malibu Lagoon, and the adjacent beaches. Excess nutrients are causing impairments to the REC-1, REC-2, WARM, COLD, EST, MAR, WILD, RARE, MIGR, and SPWN designated beneficial uses of waterbodies in the Malibu Creek Watershed. Trash is causing impairments to the MUN, GWR, REC-1, REC-2, WARM, COLD, MIGR, WILD, RARE, SPWN, and WET designated beneficial uses of the waterbodies in the Malibu Creek Watershed.

TMDLs have been adopted by the Regional Water Board for bacteria and trash in Malibu Creek. USEPA established a TMDL for nutrients in Malibu Creek. Fecal coliform bacteria may be introduced from a variety of sources including storm water and non-storm water discharges from the MS4. USEPA determined that high nitrogen and phosphorus loadings are associated with storm water discharges from commercial and residential land uses and also from undeveloped areas. During the summer non-storm water discharges add a significant portion of the load. The Regional Water Board determined in the trash TMDL that discharges from the MS4 are a source of trash to waterbodies in the Malibu Creek Watershed.

Ballona Creek and its tributaries drain a subwatershed of about 127 square miles (Figure B-2b). The watershed boundary extends in the east from the crest of the Santa Monica Mountains southward and westward to the vicinity of central Los Angeles and thence to Baldwin Hills. Tributaries of Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous other storm drains. Ballona Creek is concrete lined upstream of Centinela Boulevard. All of its tributaries are either concrete channels or covered culverts. The channel downstream of Centinela Boulevard is trapezoidal composed of grouted rip-rap side slopes and an earth bottom. The urbanized areas of Ballona Creek, which consists of residential and commercial properties, accounts for 80% of the watershed; the partially developed foothill and mountains make up the other 20%.

Ballona Creek and Ballona Creek Estuary is on the 2010 CWA Section 303(d) List for trash, toxicity, bacteria, and metals. The Ballona Creek Wetlands is on the 2010 CWA 303(d) List for trash, exotic vegetation, Section habitat alterations and hydromodification. Trash is causing impairments to the REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET, and COLD designated beneficial uses of Ballona Creek. A suite of toxic pollutants, including cadmium, copper, lead, silver, zinc, chlordane, DDT, PCBs, and PAHs in sediments and dissolved copper, dissolved lead, total selenium, and dissolved zinc, are causing impairments to the REC-1, REC-2, EST, MAR, WILD, RARE, MIGR, SPWN, COMM, and SHELL designated beneficial uses of Ballona Creek Estuary and Ballona Creek and Sepulveda Channel, respectively. The elevated bacterial indicator densities are causing impairment of the REC-1, LREC-1, and REC-2 designated beneficial uses of Ballona Creek and Ballona Estuary. The excess sediment and invasive exotic vegetation is causing impairments to the EST, MIGR, RARE, REC-1, REC-2, SPWN, WET, and WILD designated beneficial uses of the Ballona Creek Wetlands.

TMDLs have been adopted by the Regional Water Board for trash, metals and toxic pollutants in Ballona Creek and Estuary, and bacteria. USEPA established a TMDL for

Sediment and Invasive Exotic Vegetation in the Ballona Creek Wetlands. Stormwater discharge is the major source of trash in Ballona Creek. Urban storm water has been recognized as a substantial source of metals. Storm drains convey a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be guite high. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in estuarine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates. There is toxicity associated with suspended solids in urban runoff discharged from Ballona Creek, as well as with the receiving water sediments. This toxicity is likely attributed to metals and organics associated with the suspended sediments. The major contributors of flows and associated bacteria loading to Ballona Creek and Ballona Estuary are storm water and non-storm water discharges from the MS4. The potential for sediment loading into the Ballona Creek Wetlands is associated with the flow coming down the watershed. Sediment moves from the watershed through the MS4 as a result of storms, wind and land based runoff. Major storms usually take place in winter and are responsible for major movements of sediment down the watershed into Ballona Creek and Ballona Wetland towards the coastal waterbodies. These activities can lead to discharge of large quantities of sediments in runoff.

The Marina del Rey subwatershed is approximately 2.9 square miles located adjacent to the mouth of Ballona Creek. The Marina del Rey subwatershed is highly developed at 80%, the remaining 20% is split between water and open/recreation land uses.

Marina del Rey is on the 2010 CWA Section 303(d) List for bacteria and sediment concentrations of copper, lead, zinc, DDT, PCBs, chlordane, and sediment toxicity. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses at Marina del Rey Harbor Mothers' Beach and back basins. The toxic pollutants are causing impairments to the REC-1, MAR, WILD, COMM, and SHELL designated beneficial uses of the Marina del Rey Harbor.

TMDLs have been adopted by the Regional Water Board for bacteria and toxic pollutants. Non-storm water and storm water discharges from the MS4 are the primary sources of elevated bacterial indicator densities to Marina del Rey Harbor Mothers' Beach and back basins during dry and wet weather. Urban storm water has been recognized as a substantial source of metals. Numerous researchers have documented that the most prevalent metals in urban storm water (i.e., copper, lead, and zinc) are consistently associated with suspended solids. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in marine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates.

Dominguez Channel and Greater Harbor Waters Watershed Management Area. The Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area (Dominguez WMA) is located in the southern portion of the Los Angeles Basin (Figure B-3). Los Angeles Harbor is 7,500 acres and the Long Beach Harbor is 7,600 acres; together they have an open water area of approximately 8,128 acres. The 15 mile-long Dominguez Channel drains a densely urbanized area to Inner

Los Angeles Harbor. Near the end of the 19th century and during the beginning of the next century, channels were dredged, marshes were filled, wharves were constructed, the Los Angeles River was diverted, and breakwaters were constructed in order to allow deep draft ships to be directly offloaded at the docks. The Dominguez Slough was completely channelized and became the drainage endpoint for runoff from a highly industrialized area. Eventually, the greater San Pedro Bay was enclosed by two more breakwaters and deep entrance channels were dredged to allow for entry of ships.

Various reaches of the Dominguez WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for metals, DDT, PCBs, PAHs, historic pesticides, coliform, and sediment toxicity. The elevated bacteria indicator densities is causing impairments to the SHELL, REC-1, and REC-2 designated beneficial uses of Los Angeles Harbor. The elevated levels of metals and organics are causing impairments to beneficial uses designated in these waters to protect aquatic life, including MAR and RARE. In addition, the elevated levels are causing impairments in the estuaries, which are designated with SPWN, MIGR, and WILD beneficial uses. Dominguez Channel also has an existing designated use of WARM and the Los Angeles River Estuary has the designated use of WET. Beneficial uses associated with human use of these waters that are impaired due to the elevated concentrations of metals and organics include REC-1, REC-2, IND, NAV, COMM, and SHELL.

TMDLs have been adopted by the Regional Water Board for toxic pollutants in the Dominguez WMA and for bacteria at Inner Cabrillo Beach and the Main Ship Channel. Discharges from the MS4 are a source of elevated bacterial indicator densities to Inner Cabrillo Beach and the Main Ship Channel during dry and wet weather. The major point sources of organochlorine pesticides, PCBs, and metals into Dominguez Channel are storm water and non-storm water discharges. The contaminated sediments are a reservoir of historically deposited pollutants. Storm water runoff from manufacturing, military facilities, fish processing plants, wastewater treatment plants, oil production facilities, and shipbuilding or repair yards in both Ports have discharged untreated or partially treated wastes into Harbor waters. Current activities also contribute pollutants to Harbor sediments, in particular, storm water runoff.

Machado Lake is listed for trash, nutrients, PCBs and historic pesticides. Trash, nutrients and toxic pollutants are causing impairments to the WARM, WET, RARE, WILD, REC-1 and REC-2 designated beneficial uses of Machado Lake. TMDLs have been adopted by the Regional Water Board for trash, nutrients, PCBs and pesticides for Machado Lake. The point sources of trash and nutrients into Machado Lake are storm water and non-storm water discharges from the MS4. Storm water discharges occur through the following sub-drainage systems: Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake.

Los Angeles River Watershed Management Area. The Los Angeles River Watershed Management Area (LAR WMA) drains a watershed of 824 square miles (Figure B-4). The LAR WMA is one of the largest in the Region and is also one of the most diverse in terms of land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters, which originate in the Santa Monica, Santa Susana, and San Gabriel

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Mountains. The remainder of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach. Due to major flood events at the beginning of the century, by the 1950s most of the LA River was lined with concrete. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. Since the water table was too high to allow laying of concrete, the river in this area has a rocky, unlined bottom with concrete-lined or rip-rap sides. South of the Glendale Narrows, the river is contained in a concrete-lined channel down to Willow Street in Long Beach. The LA River tidal prism/estuary begins in Long Beach at Willow Street and runs approximately three miles before joining with Queensway Bay. The channel has a soft bottom in this reach with concrete-lined sides. A number of lakes are also part of the LAR WMA, including Peck Road Park, Belvedere Park, Hollenbeck Park, Lincoln Park, and Echo Park Lakes as well as Lake Calabasas.

Various reaches and lakes within the LAR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for trash, nitrogen compounds and related effects (ammonia, nitrate, nitrite, algae, pH, odor, and scum), metals (copper, cadmium, lead, zinc, aluminum and selenium), bacteria, and historic pesticides. Beneficial uses impaired by trash in the Los Angeles River are REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET and COLD. The excess nitrogen compounds are causing impairments to the WARM and WILD designated beneficial uses of Los Angeles River. Excess metals are causing impairments to the WILD, RARE, WARM, WET, and GWR designated beneficial uses of the Los Angeles River and its tributaries. Elevated indicator bacteria densities are causing impairments to the REC-1 and REC-2 designated beneficial uses of Los Angeles River and the Los Angeles River Estuary.

TMDLs have been adopted by the Regional Water Board for trash, nitrogen, metals, and bacteria in the Los Angeles River. USEPA established TMDLs for bacteria in the Los Angeles River Estuary and for various pollutants in Los Angeles Area Lakes. The Los Angeles River Watershed Trash TMDL identifies discharges from the municipal separate storm sewer system as the principal source of trash to the Los Angeles River and its tributaries. The Regional Water Board determined that urban runoff and storm water may contribute to nitrate loads. Discharges from the MS4 contribute a large percentage of the metals loadings during dry weather because although non-storm water flows from the MS4 are typically low relative to other discharges during dry weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow. On an annual basis, storm water discharges from the MS4 contribute about 40% of the cadmium loading, 80% of the copper loading, 95% of the lead loading, and 90% of the zinc loading. Discharges from the MS4 are the

principal source of bacteria to the Los Angeles River, its tributaries and the Los Angeles River Estuary in both dry weather and wet weather.

The Los Angeles Water Board identified 10 lakes in the Los Angeles region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA are: Lake Calabasas TMDLs for total nitrogen and total phosphorus; Echo Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, dieldrin, total PCBs, and trash; and Peck Road Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, total DDT, dieldrin, total PCBs, and trash.

In Lake Calabasas beneficial uses impaired by elevated levels of nutrients include REC1, REC2, and WARM. At high enough concentrations, WILD and MUN uses could also become impaired. MS4 discharges from the surrounding watershed to Lake Calabasas during dry and wet weather contributes 97.7 percent of the total phosphorus load and 74.4 percent of the total nitrogen load.

In Echo Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, and dieldrin are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. Beneficial uses impaired by trash in Echo Park Lake include REC1, REC2, WARM and WILD. The Echo Park Lake nutrient TMDL found that MS4 discharges from the northern and southern watershed to Echo Lake contribute 29 percent of the total phosphorus load and 28 percent of the total nitrogen load during wet weather with dry weather loading data unavailable due to the majority of runoff being diverted downstream of the lake. PCBs, chlordane, and dieldrin in Echo Park Lake are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Storm water loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Echo Park Lake.

In Peck Road Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, DDT, dieldrin, and trash are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. The Peck Road Park Lake nutrient TMDL found that MS4 discharges from the surrounding watershed including both wet and dry weather contribute 80.2 percent of the total phosphorus load and 55.5 percent of the total nitrogen load. PCBs, chlordane, DDT, and dieldrin in Peck Road Park Lake loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is

mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Peck Road Park Lake.

San Gabriel River Watershed Management Area. The San Gabriel River Watershed (SGR WMA) receives drainage from a 689-square mile area of eastern Los Angeles County (Figure B-5). The main channel of the San Gabriel River is approximately 58 miles long. Its headwaters originate in the San Gabriel Mountains with the East, West, and North Forks. The river empties to the Pacific Ocean at the Los Angeles and Orange Counties boundary in Long Beach. The main tributaries of the river are Big and Little Dalton Wash, San Dimas Wash, Walnut Creek, San Jose Creek, Fullerton Creek, and Coyote Creek. Part of the Coyote Creek subwatershed is in Orange County and is under the authority of the Santa Ana Water Board. A number of lakes and reservoirs are also part of the SGR WMA, including Legg Lake and Puddingstone Reservoir. Land use in the watershed is diverse and ranges from predominantly open space in the upper watershed to urban land uses in the middle and lower parts of the watershed.

Various reaches of the SGR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies due to trash, nitrogen, phosphorus, and metals (copper, lead, selenium, and zinc). Beneficial uses impaired by trash in Legg Lake include REC1, REC2, and WILD.

A TMDL has been adopted by the Regional Water Board for trash in Legg Lake. The Legg Lake Trash TMDL identifies MS4 storm drains as the principal point source for trash discharged to Legg Lake.

USEPA established TMDLs for metals and selenium in the San Gabriel River and various pollutants in Los Angeles Area Lakes. Segments of the San Gabriel River and its tributaries exceed water quality objectives for copper, lead, selenium, and zinc. Metals loadings to San Gabriel River are causing impairments of the WILD, WARM, COLD, RARE, EST, MAR, MIGR, SPWN, WET, MUN, IND, AGR, GWR, and PROC beneficial uses. The San Gabriel River metals and selenium TMDL found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

The Regional Water Board identified 10 lakes in the Los Angeles Region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA are: Legg Lake TMDLs for total nitrogen and total phosphorus; and Puddingstone Reservoir TMDLs for total nitrogen, total phosphorus, total chlordane, total DDT, total PCBs, total mercury, and dieldrin.

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In Legg Lake beneficial uses impaired due to elevated nutrient levels include REC1, REC2, WARM and COLD. At high enough concentrations the WILD, MUN, and GWR uses could also become impaired. The Legg Lake nutrient TMDL found that MS4 discharges from the surrounding watershed to Legg Lake during dry and wet weather contributes 69.1 percent of the total phosphorus load and 36 percent of the total nitrogen load.

In Puddingstone Reservoir beneficial uses impaired due to elevated nutrient, mercury, PCBs, chlordane, dieldrin, and DDT levels include REC1, REC2, WARM, and COLD. At high enough concentrations the WILD, MUN, GWR, and RARE uses could also become impaired. The Puddingstone Reservoir nutrients TMDL found that MS4 discharges from the surrounding watershed to Puddingstone Reservoir during dry and wet weather contributes 79.8 percent of the total phosphorus and 74.1 percent of the total nitrogen load. Mercury, PCBs, chlordane, dieldrin, and DDT in Puddingstone Reservoir loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake.

Los Cerritos Channel and Alamitos Bay Watershed Management Area. The Los Cerritos Channel is concrete-lined above the tidal prism and drains a small but densely urbanized area of east Long Beach (Figure B-6). The channel's tidal prism starts at Anaheim Road and connects with Alamitos Bay through the Marine Stadium; the wetlands connect to the Channel a short distance from the lower end of the Channel. Alamitos Bay is composed of the Marine Stadium, a recreation facility built in 1932; Long Beach Marina; a variety of public and private berths; and the Bay proper. A small bathing lagoon, Colorado Lagoon located entirely in Long Beach, has a tidal connection with the Bay. The majority of land use in this WMA is high density residential.

Los Cerritos Channel is on the 2010 CWA Section 303(d) List of impaired water bodies for metals (copper, zinc, and lead). Beneficial uses impaired by metals in the Los Cerritos Channel include WILD, REC2 and WARM. USEPA established a TMDL for various metals in Los Cerritos Channel. The TMDL for metals in Los Cerritos Channel found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

Middle Santa Ana River Watershed Management Area. The Middle Santa Ana River Watershed Management Area (MSAR WMA) covers approximately 488 square miles and lies mostly in San Bernardino and Riverside Counties; however, a small part of Los Angeles County is also included. The area of Los Angeles County, which lays in the MSAR WMA, includes portions of the Cities of Pomona and Claremont (Figure B-7). The MSAR WMA is comprised of three subwatersheds. The subwatershed that includes portions of Pomona and Claremont is the Chino Basin Subwatershed. Surface

drainage from Pomona and Claremont is generally southward toward San Antonio Creek, which is tributary to Chino Creek, which feeds into the Prado Flood Control Basin.

Various reaches of the MSAR WMA, including Chino Creek, are listed on 2010 CWA Section 303(d) List for bacteria. Elevated bacterial indicator densities are causing impairments of the REC-1 and REC-2 designated beneficial for the Santa Ana River Reach 3; Chino Creek Reaches 1 and 2; Mill Creek (Prado Area); Cucamonga Creek Reach 1; and Prado Park Lake.

The Santa Ana Water Board adopted TMDLs for bacteria for the Middle Santa Ana River Watershed. The Basin Plan amendment incorporating the Middle Santa Ana River Watershed Bacterial Indicator TMDLs was approved by the Santa Ana Water Board on August 26, 2005 (Resolution No. R8-2005-0001), by the State Water Board on May 15, 2006, by the Office of Administrative Law on September 1, 2006, and by the USEPA on May 16, 2007. The TMDL was effective on May 16, 2007. The Santa Ana Water Board concluded based upon data and information collected in 1993, 1996-1998 and in 2002-2004, that urban runoff from the MS4 is a significant source of bacterial indicators year round to the Middle Santa Ana River and its tributaries (Rice, 2005). The TMDL specifies both dry weather and wet weather WLAs, with distinct implementation schedules. Compliance with the summer dry (April 1st through October 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2015. In recognition of the difficulties associated with the control of storm water discharges, compliance with the winter wet (November 1st through March 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2015.

Calleguas Creek Watershed Management Area. Calleguas Creek and its tributaries drain a watershed area of 343 square miles (sq. miles) in southern Ventura County and a small portion of western Los Angeles County. Approximately, 4.16 sq. miles of Los Angeles County is part of the Calleguas Creek Watershed. The land use of the 4.15 sq. miles is open space and recreation. The land use of the remaining 0.01 sq. miles is divided between low density residential, industrial, and agriculture (Southern California Association of Governments, 2008). Six TMDLs have been adopted and are in effect for the Calleguas Creek Watershed. None of the TMDLs assign waste load allocations to the Los Angeles County Flood Control District, County of Los Angeles or any incorporated city within Los Angeles County. Therefore, no water quality based effluent limitations were incorporated in this Order for TMDLs in the Calleguas Creek Watershed.

Manner of Incorporation of TMDL WLAs. The description of the permit conditions and the basis for the manner for incorporating requirements to implement the TMDLs' WLAs is discussed below.

WLAs may be expressed in different ways in a TMDL. In general, a WLA is expressed as a discharge condition that must be achieved in order to ensure that water quality standards are attained in the receiving water. The discharge condition may be expressed in terms of mass or concentration of a pollutant. However, in some cases, a WLA may be expressed as a receiving water condition such as an allowable number of exceedance days of the bacteria objectives.

In this Order, in most cases, TMDL WLAs have been translated into numeric WQBELs and, where consistent with the expression of the WLA in the TMDL, also as receiving water limitations. For each TMDL included in this Order, the WLA were translated into numeric WQBELs, which were based on the WLAs in terms of the numeric value and averaging period. For those TMDLs where the averaging period was not specific for the WLA, the averaging period was based on the averaging period for the numeric target.

For the bacteria TMDLs, where the WLA are expressed as an allowable number of exceedance days in the water body, the WLAs were translated into receiving water limitations. In addition to the receiving water limitations, WQBELs were established based on the bacteria water quality objectives. In the bacteria TMDLs, the numeric targets are based on the multi-part bacteriological water quality objectives; therefore, this approach is consistent with the assumptions of the bacteria TMDLs.

In the Ballona Creek Trash TMDL, the default baseline WLA for the MS4 Permittees is equal to 640 gallons (86 cubic feet) of uncompressed trash per square mile per year. No differentiation is applied for different land uses in the default baseline WLA. The default baseline WLAs for the Permittees has been refined based on results from the baseline monitoring conducted by the City of Los Angeles. The City of Los Angeles provided trash generation flux data for five land uses: commercial, industrial, high density residential, low density residential and open space and recreation. The Baseline WLA for any single city is the sum of the products of each land use area multiplied by the WLA for the land use area, as shown below:

WLA = \sum for each city (area by land uses x allocations for this land use)

The baseline was calculated using the City of Los Angeles trash generation flux data provided for the 2003-04 and 2004-05 storm years averaged for pounds of trash per acre and the 2003-04 storm year for gallons of trash per acre. The urban portion of the Ballona Creek watershed was divided into twelve types of land uses for every city and unincorporated area in the watershed. The land use categories are: (1) high density residential, (2) low density residential, (3) commercial and services, (4) industrial, (5) public facilities, (6) educational institutions, (7) military installations, (8) transportation, (9) mixed urban, (10) open space and recreation, (11) agriculture, and (12) water. The land use data used in the calculation is based on the Southern California Association of Governments 2005 data.

1. Compliance Determination

For TMDLs that establish individual mass-based WLAs or a concentration-based WLA such as the Trash TMDLs, Nitrogen TMDLs, and Chloride TMDL, this Order requires Permittees to demonstrate compliance with their assigned WQBELs individually.

A number of the TMDLs for Bacteria, Metals and Toxics establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Permittees based on co-location within the same subwatershed. Permittees with co-mingled storm water are jointly responsible for meeting the WQBELs and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsibility" means that the Permittees that have commingled MS4 discharges are responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner or operator, to meet the WQBELs and/or receiving water limitations assigned to such commingled MS4 discharges.

In these cases, federal regulations state that co-permittees need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators. (40 CFR § 122.26(a)(3)(vi).) Individual co-permittees are only responsible for their contributions to the commingled discharge. This Order does not require a Permittee to individually ensure that a commingled MS4 discharge meets the applicable WQBELs included in this Order, unless such Permittee is shown to be solely responsible for the exceedances.

Additionally, this Order allows a Permittee to clarify and distinguish their individual contributions and demonstrate that its MS4 discharge did not cause or contribute to exceedances of applicable WQBELs and/or receiving water limitations. In this case, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the WQBELs or receiving water limitation.

Individual co-permittees who demonstrate compliance with the WQBELs will not be held responsible for violations by non-compliant co-permittees.

Demonstrating Compliance with Interim Limitations. This Order provides Permittees with several means of demonstrating compliance with applicable interim WQBELs and/or interim receiving water limitations for the pollutant(s) associated with a specific TMDL. These include any of the following:

- **a.** There are no violations of the interim WQBELs for the pollutant(s) associated with a specific TMDL at the Permittee's applicable MS4 outfall(s),¹ including an outfall to the receiving water that collects discharges from multiple Permittees' jurisdictions;
- b. There are no exceedances of the applicable receiving water limitation for the pollutant(s) associated with a specific TMDL in the receiving water(s) at, or downstream of, the Permittee's outfall(s);

¹ An outfall may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or
- **d.** The Permittee has submitted and is fully implementing an approved Watershed Management Program, which includes analyses that provide the Regional Water Board with reasonable assurance that the watershed control measures proposed will achieve the applicable WQBELs and receiving water limitations consistent with relevant compliance schedules.

Demonstrating Compliance with Final Limitations. This Order provides Permittees with three general means of demonstrating compliance with an applicable *final* WQBEL and/or *final* receiving water limitation for the pollutant(s) associated with a specific TMDL.

These include any of the following:

- **a.** There are no violations of the final WQBEL for the specific pollutant at the Permittee's applicable MS4 outfall(s)²;
- b. There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the Permittee's outfall(s); or
- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL.

This Order provides the opportunity for Permittees to demonstrate compliance with *interim* effluent limitations through development and implementation of a Watershed Management Program, where Permittees have provided a reasonable demonstration through quantitative analysis (i.e., modeling or other approach) that the control measures/BMPs to be implemented will achieve the interim effluent limitations in accordance with the schedule provided in this Order. It is premature to consider application of this action based compliance demonstration option to the final effluent limitations and final receiving water limitations that have deadlines outside the term of this Order. More data is needed to validate assumptions and model results regarding the linkage among BMP implementation, the quality of MS4 discharges, and receiving water quality.

During the term of this Order, there are very few deadlines for compliance with final effluent limitations applicable to storm water, or final receiving water limitations applicable during wet weather conditions. Most deadlines during the term of this Order are for interim effluent limitations applicable to storm water, or for final effluent limitations applicable to non-storm water discharges and final dry weather receiving water limitations.

There are only five State-adopted TMDLs for which the compliance deadlines for final water quality-based effluent limitations applicable to storm water occur during the term of this Order. These include: Santa Clara River Chloride TMDL, Santa Clara River Nitrogen TMDL, Los Angeles River Nitrogen TMDL, Marina del Rey Harbor Toxics TMDL, and LA Harbor Bacteria TMDL. In most of these five TMDLs, compliance with the final water quality-based effluent limitations assigned to MS4 discharges is expected to be achieved (e.g., Santa Clara River Chloride TMDL³), or a mechanism is in place to potentially allow additional time to come into compliance (e.g. reconsideration of the Marina del Rey Harbor Toxics TMDL implementation schedule).

The Regional Water Board will evaluate the effectiveness of this action-based compliance determination approach in ensuring that interim effluent limitations for storm water are achieved during this permit term. If this approach is effective in achieving compliance with interim effluent limitations for storm water during this permit term, the Regional Water Board will consider during the next permit cycle whether it would be appropriate to allow a similar approach for demonstrating compliance with final water quality-based effluent limitations applicable to storm water.

2. Compliance Schedules for Achieving TMDL Requirements

A Regional Water Board may include a compliance schedule in an NPDES permit when the state's water quality standards or regulations include a provision that authorizes such schedules in NPDES permits.⁴ In California, TMDL implementation plans⁵ are typically adopted through Basin Plan Amendments. The TMDL implementation plan, which is part of the Basin Plan Amendment, becomes a regulation upon approval by the State of California Office of Administrative Law (OAL).⁶ Pursuant to California Water Code sections 13240 and 13242, TMDL implementation plans adopted by the Regional Water Board "shall include ... a time schedule for the actions to be taken [for achieving water quality objectives]," which allows for compliance schedules in future permits. This Basin Plan Amendment becomes the applicable regulation that authorizes an MS4 permit to include a compliance schedule to achieve effluent limitations derived from wasteload allocations.

Where a TMDL implementation schedule has been established through a Basin Plan Amendment, it is hereby incorporated into this Order as a compliance schedule to

³ Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/L, while more recent data from the mass emissions station in the Santa Clara River (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather, suggesting that storm water has a diluting effect on chloride concentrations in the receiving water.

⁴ See In re Star-Kist Caribe, Inc., (Apr. 16, 1990) 3 E.A.D. 172, 175, modification denied, 4 E.A.D. 33, 34 (EAB 1992)).

⁵ TMDL implementation plans consist of those measures, along with a schedule for their implementation, that the Water Boards determine are necessary to correct an impairment. The NPDES implementation measures are thus required by sections 303(d) and 402(p)(3)(B)(iii) of the CWA. State law also requires the Water Boards to implement basin plan requirements. (See Wat. Code §§ 13263, 13377; *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.)

⁶ See Gov. Code, § 11353, subd. (b). Every amendment to a Basin Plan, such as a TMDL and its implementation plan, requires approval by the State Water Board and OAL. When the TMDL and implementation plan is approved by OAL, it becomes a state regulation.

achieve interim and final WQBELs and corresponding receiving water limitations, in accordance with 40 CFR section 122.47. WQBELs must be consistent with the assumptions and requirements of any WLA, which includes applicable implementation schedules.⁷ California Water Code sections 13263 and 13377 state that waste discharge requirements must implement the Basin Plan.⁸ Therefore, compliance schedules for attaining WQBELs derived from WLAs must be based on a state-adopted TMDL implementation plan and cannot exceed the maximum time that the implementation plan allows.

In determining the compliance schedules, the Regional Water Board considered numerous factors to ensure that the schedules are as short as possible. Factors examined include, but are not limited to, the size and complexity of the watershed; the pollutants being addressed; the number of responsible agencies involved; time for Co-Permittees to negotiate memorandum of agreements; development of water quality management plans; identification of funding sources; determination of an implementation strategy based on the recommendations of water quality management plans and/or special studies; and time for the implementation strategies to yield measurable results. Compliance schedules may be altered based on the monitoring and reporting results as set forth in the individual TMDLs.

In many ways, the incorporation of interim and final WQBELs and associated compliance schedules is consistent with the iterative process of implementing BMPs that has been employed in the previous Los Angeles County MS4 Permits in that progress toward compliance with the final effluent limitations may occur over the course of many years. However, because the waterbodies in Los Angeles County are impaired due to MS4 discharges, it is necessary to establish more specific provisions in order to: (i) ensure measurable reductions in pollutant discharges from the MS4, resulting in progressive water quality improvements during the iterative process, and (ii) establish a final date for completing implementation of BMPs and, ultimately, achieving effluent limitations and water quality standards.

The compliance schedules established herein are consistent with the implementation plans established in the individual TMDLs. The compliance dates for meeting the final WQBELs and receiving water limitations for each TMDL are listed below in Table F-7.

⁷ See 40 C.F.R. § 122.44(d)(1)(vii)(B).

⁸ Cal. Wat. Code, § 13263, subd. (a) ("requirements shall implement any relevant water quality control plans that have been adopted"); Cal. Wat. Code, § 13377 ("the state board or the regional boards shall . . . issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the [CWA], thereto, together with any more stringent effluent standards or limitations necessary to implement waste quality control plans, or for the protection of beneficial uses, or to prevent nuisance"); *see also, State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.

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TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004			
Upper Santa Clara River Chloride TMDL	April 6, 2010			
Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only)		March 6, 2016		
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL				
Dry Weather				March 21, 2023
Wet Weather				March 21, 2029
Santa Monica Bay Beaches Bacteria TMDL				
Summer Dry Weather	July 15, 2006			
Winter Dry Weather	July 15, 2009			
Wet Weather			July 15, 2021	
Santa Monica Bay Nearshore and Offshore Debris TMDL			March 20, 2020	
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)		March 26, 2012		
Malibu Creek and Lagoon Bacteria TMDL				
Summer Dry Weather	January 24, 2009			
Winter Dry Weather	January 24, 2012			
Wet Weather			July 15, 2021	
Malibu Creek Watershed Trash TMDL		July 7, 2017		
Malibu Creek Watershed Nutrients TMDL (USEPA established)	March 21, 2003			
Ballona Creek Trash TMDL		September 30, 2015		
Ballona Creek Estuary Toxic Pollutants TMDL			January 11, 2021	
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL				
Dry Weather		April 27, 2013		
Wet Weather			July 15, 2021	

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	Final Compliance	Final Compliance date within 5 years	Final Compliance date between 5 and 10 years	Final Compliance date after 10
TOTAL MAXIMUM DAILY LOADS (TMDL)	date has Passed	(2012-2017)	(2018-2022)	years (2023)
Ballona Creek Metals TMDL				
Dry Weather		January 11, 2016		
Wet Weather			January 11, 2021	
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic				
Vegetation (USEPA established)		March 26, 2012		
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria			·	
TMDL				
Dry Weather	March 18, 2007			
Wet Weather			July 15, 2021	
Marina del Rey Harbor Toxic Pollutants TMDL		March 22, 2016	March 22, 2021*	
Los Angeles Harbor Bacteria TMDL	March 10, 2010			
Machado Lake Trash TMDL		March 6, 2016		
Machado Lake Nutrient TMDL			September 11, 2018	
Machado Lake Pesticides and PCBs TMDL			September 30, 2019	
Dominguez Channel and Greater LA and LB Harbor Waters Toxic Pollutants TMDL				March 23, 2032
Los Angeles River Watershed Trash TMDL		September 30, 2016		
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004			
Los Angeles River and Tributaries Metals TMDL				
Dry Weather				January 11, 2024
Wet Weather				January 11, 2028
Los Angeles River Watershed Bacteria TMDL				
Dry Weather (Compliance dates range from 10 to 25 years)			March 23, 2022	March 23, 2037
Wet Weather				March 23, 2037
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)		March 26, 2012		

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TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Los Angeles Area Lakes TMDLs (USEPA established)		March 26, 2012		
San Gabriel River and Impaired Tributaries Metals and Selenium				
TMDL (USEPA established)	March 26, 2007			
Legg Lake Trash TMDL		March 6, 2016		
Los Cerritos Channel Metals TMDL (USEPA established)	March 17, 2010			
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and				
Metals TMDL			July 28, 2018	

* If an Integrated Water Resources Approach is approved and implemented then Permittees have an extended compliance deadline.

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3. State Adopted TMDLs with Past Final Compliance Deadlines

As required by federal regulations, this Order includes WQBELs necessary to achieve applicable wasteload allocations assigned to MS4 discharges. In some cases, the deadline specified in the TMDL implementation plan for achieving the final wasteload allocation has passed. (See Table F-8) This Order requires that Permittees comply immediately with WQBELs and/or receiving water limitations for which final compliance deadlines have passed.

Table F-8. State-Adopted TMDLs with Past Final Implementation Deadlines

	Final Compliance
TOTAL MAXIMUM DAILY LOADS (TMDL)	date has Passed
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004
Upper Santa Clara River Chloride TMDL	April 6, 2010
Santa Monica Bay Beaches Bacteria TMDL Summer Dry Weather only	July 15, 2006
Santa Monica Bay Beaches Bacteria TMDL Winter Dry Weather only	July 15, 2009
Malibu Creek and Lagoon Bacteria TMDL Summer Dry Weather only	January 24, 2009
Malibu Creek and Lagoon Bacteria TMDL Winter Dry Weather only	January 24, 2012
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL Dry Weather Year-round only	March 18, 2007
Los Angeles Harbor Bacteria TMDL	March 10, 2010
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004

Where a Permittee determines that its MS4 discharge may not meet the final WQBELs for the TMDLs in Table F-8 upon adoption of this Order, the Permittee may request a time schedule order (TSO) from the Regional Water Board. TSOs are issued pursuant to California Water Code section 13300, whenever a Water Board "finds that a discharge of waste is taking place or threatening to take place that violates or will violate [Regional Water Board] requirements." Permittees may individually request a TSO, or may jointly request a TSO with all Permittees subject to the WQBELs and/or receiving water limitations. Permittees must request a TSO to achieve WQBELs for the TMDLs in Table F-8 no later than 45 days after the date this Order is adopted.

In the request, the Permittee(s) must include, at a minimum, the following:

- a. Location specific data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
- b. A detailed description and chronology of structural controls and source control efforts, including location(s) of implementation, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
- **c.** A list of discharge locations for which additional time is needed to achieve the water quality based effluent limitations and/or receiving water limitations;
- **d.** Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations for each location identified in Part VI.E.3.c, above;

- e. A detailed time schedule of specific actions the Permittee will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations at each location identified in Part VI.E.3.c, above;
- f. A demonstration that the time schedule requested is as short as possible, consistent with California Water Code section 13385(j)(3)(C)(i), taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and
- **g.** If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:
 - i. Effluent limitation(s) for the pollutant(s) of concern; and
 - ii. Actions and milestones leading to compliance with the effluent limitation(s).

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WQBELs and corresponding receiving water limitations for which the final compliance deadline has passed if a Permittee is fully complying with the requirements of a TSO to resolve exceedances of the WQBELs for the specific pollutant(s) in the MS4 discharge.

4. USEPA Established TMDLs

USEPA has established seven TMDLs that include wasteload allocations for MS4 discharges covered by this Order (See Table F-9). Five TMDLs were established since 2010, one in 2007, and one in 2003.

Table F-9.USEPA Established TMDLs with WLAs Assigned to MS4Discharges

Effective Date
March 26, 2012
March 17, 2010
March 26, 2007
March 21, 2003

In contrast to State-adopted TMDLs, USEPA established TMDLs do not contain an implementation plan or schedule. The Clean Water Act does not allow USEPA to either adopt implementation plans or establish compliance schedules for TMDLs that is establishes. Such decisions are generally left with the States. The Regional Water Board could either (1) adopt a separate implementation plan as a Basin Plan Amendment for each USEPA established TMDL, which would allow inclusion of compliance schedules in the permit where applicable, or (2) issue a Permittee a schedule leading to full compliance in a separate enforcement order (such as a Time

Schedule Order or a Cease and Desist Order). To date, the Board has not adopted a separate implementation plan or enforcement order for any of these TMDLs. As such, the final WLAs in the seven USEPA established TMDLs identified above become effective immediately upon establishment by USEPA and placement in a NPDES permit.

The Regional Water Board's decision as to how to express permit conditions for USEPA established TMDLs is based on an analysis of several specific facts and circumstances surrounding these TMDLs and their incorporation into this Order. First, since these TMDLs do not include implementation plans, none of these TMDLs have undergone a comprehensive evaluation of implementation strategies or an evaluation of the time required to fully implement control measures to achieve the final WLAs. Second, given the lack of an evaluation, the Regional Water Board is not able to adequately assess whether Permittees will be able to immediately comply with the WLAs at this time. Third, the majority of these TMDLs were established by USEPA recently (i.e., since 2010) and permittees have had limited time to plan for and implement control measures to achieve compliance with the WLAs. Lastly, while federal regulations do not allow USEPA to establish implementation plans and schedules for achieving these WLAs, USEPA has nevertheless included implementation recommendations regarding MS4 discharges as part of six of the seven of these TMDLs. The Regional Water Board needs time to adequately evaluate USEPA's recommendations. For the reasons above, the Regional Water Board has determined that numeric water quality based effluent limitations for these USEPA established TMDLs are infeasible at the present time. The Regional Water Board may at its discretion revisit this decision within the term of the Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires Permittees subject to WLAs in USEPA established TMDLs to propose and implement best management practices (BMPs) that will be effective in achieving the numeric WLAs. Permittees will propose these BMPs to the Regional Water Board in a Watershed Management Program Plan, which is subject to Regional Water Board Executive Officer approval. As part of this Plan, Permittees are also required to propose a schedule for implementing the BMPs that is as short as possible. The Regional Water Board finds that, at this time, it is reasonable to include permit conditions that require Permittees to develop specific Watershed Management Program plans that include interim milestones and schedules for actions to achieve the WLAs. These plans will facilitate a comprehensive planning process, including coordination among co-permittees where necessary, on a watershed basis to identify the most effective watershed control measures and implementation strategies to achieve the WLAs.

At a minimum, the Watershed Management Program Plan must include the following data and information relevant to the USEPA established TMDL:

- Available data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
- **ii.** A detailed time schedule of specific actions the Permittee will take in order to achieve the WLA(s);
- **iii.** A demonstration that the time schedule requested is as short as possible, taking into account the time since USEPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);
- a. For the Malibu Creek Nutrient TMDL established by USEPA in 2003, in no case shall the time schedule to achieve the final numeric WLAs exceed five years from the effective date of this Order; and
- iv. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements, including numeric milestones, and the date(s) for their achievement.

Each Permittee subject to a WLA in a TMDL established by USEPA since 2010 must submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than one year after the effective date of this Order.

Each Permittee subject to a WLA in a TMDL established by USEPA prior to 2010 must submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than six months after the effective date of this Order..

Based on the nature and timing of the proposed watershed control measures, the Regional Water Board will consider appropriate actions on its part, which may include: (1) no action and continued reliance on permit conditions that require implementation of the approved watershed control measures throughout the permit term; (2) adopting an implementation plan and corresponding schedule through the Basin Plan Amendment process and then incorporating water quality based effluent limitations and a compliance schedule into this Order consistent with the State-adopted implementation plan; or (3) issuing a time schedule order to provide the necessary time to fully implement the watershed control measures to achieve the WLAs.

If a Permittee chooses not to submit a Watershed Management Program Plan, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and necessary revisions are not made within 90 days of written notification to the Permittee that that plan is inadequate, the Permittee will be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WLAs and corresponding receiving water limitations for USEPA established TMDLs if a Permittee has developed and is implementing an approved Watershed Management Program to achieve the WLAs in the USEPA TMDL and the associated receiving water limitations.

E. Other Provisions

1. Legal Authority

Adequate legal authority is required to implement and enforce most parts of the Minimum Control Measures and all equivalent actions if implemented with a Watershed Management Program (See 40 CFR section 122.26(d)(2)(i)(A through F) and 40 CFR section 122.26(d)(2)(iv). Without adequate legal authority the MS4 would be unable to perform many vital functions such as performing inspections, requiring remedies, and requiring installation of control measures. In addition, the Permittee would not be able to penalize and/or attain remediation costs from violators.

2. Fiscal Resources

The annual fiscal analysis will show the allocated resources, expenditures, and staff resources necessary to comply with the permit, and implement and enforce the Permittee's Watershed Management Program (See 40 CFR section 122.26(d)(2)(vi). The annual analysis is necessary to show that the Permittee has adequate resources to meet all Permit Requirements. The analysis can also show year-to-year changes in funding for the storm water program. A summary of the annual analysis must be reported in the annual report. This report will help the Permitting Authority understand the resources that are dedicated to compliance with this permit, and to implementation and enforcement of the Watershed Management Program, and track how this changes over time. Furthermore, the inclusion of the requirement to perform a fiscal analysis annually is similar to requirements included in Order No. 01-182 permit as well as the current Ventura County MS4 permit.

3. Responsibilities of the Permittees

Because of the complexity and networking of the storm drain system and drainage facilities within and tributary to the LA MS4, the Regional Water Board adopted an area-wide approach in permitting storm water and urban runoff discharges. Order No. 01-182 was structured as a single permit whereby individual Permittees were assigned uniform requirements and additional requirements were assigned to the Principal Permittee (Los Angeles County Flood Control District). Because the Los Angeles County Flood Control District does not own or control land where most pollutants originate, it is relieved as Principal Permittee. This permit does not designate a principal Permittee and as such requires each Permittee to implement provisions as a separate entity. Furthermore it does not hold a Permittee responsible for implementation of provisions applicable to other Permittees.

Part VI.A.4.a requires inter and intra-agency coordination to facilitate implementation of this Order. This requirement is based on 40 CFR section 122.26(d)(2)(iv) which requires "a comprehensive planning process which public participation and where

necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable [...]."

4. Reopener and Modification Provisions

These provisions are based on 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64, and are also consistent with Order No. 01-182. The Regional Water Board may reopen the permit to modify permit conditions and requirements, as well as revoke, reissue, or terminate in accordance with federal regulations. Causes for such actions include, but are not limited to, endangerment to human health or the environment; acquisition of newly-obtained information that would have justified the application of different conditions if known at the time of Order adoption; to incorporate provisions as a result of new federal or state laws, regulations, plans, or policies (including TMDLs and other Basin Plan amendments); modification in toxicity requirements; violation of any term or condition in this Order; and/or minor modifications to correct typographical errors or require more frequent monitoring or reporting by a Permittee.

XIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The MRP (Attachment E of this Order) establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Order.

A. Integrated Monitoring Plans

1. Integrated Monitoring Program and Coordinated Integrated Monitoring Program

As discussed in Part VI.B of this Fact Sheet, the purpose of the Watershed Management Programs is to provide a framework for Permittees to implement the requirements of this Order in an integrated and collaborative fashion and to address water quality priorities on a watershed scale. Additionally, the Watershed Management Programs are to be designed to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable water quality based effluent limitations that implement TMDLs, (ii) do not cause or contribute to exceedances of receiving water limitations, and (iii) for non-storm water discharges from the MS4, are not a source of pollutants to receiving waters. This Order provides options for each Permittee to develop and implement an Integrated Monitoring Program (IMP), or alternatively, individual Permittee(s) may cooperate with other Permittees to develop a Coordinated Integrated Monitoring Program (CIMP). Both the IMP and CIMP are intended to facilitate the effective and collaborative monitoring of receiving waters, storm water, and non-storm water discharges and to report the results of monitoring to the Regional Water Board.

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The key requirements for Watershed Management Programs are included in Part VI.C of this Order. The IMP and CIMP requirements within the MRP largely summarize the requirements and reinforce that, at a minimum, the IMP or CIMP must address all TMDL and Non-TMDL monitoring requirements of this Order, including receiving water monitoring, storm water outfall based monitoring, non-storm water outfall based monitoring, and regional water monitoring studies.

Both the IMP and CIMP approach provides opportunities to increase the cost efficiency and effectiveness of the Permittees monitoring program as monitoring can be designed, prioritized and implemented on a watershed basis. The IMP/CIMP approach allows the Permittees to prioritize monitoring resources between watersheds based on TMDL Implementation and Monitoring Plan schedules, coordinate outfall based monitoring programs and implement regional studies. Cost savings can also occur when Permittees coordinate their monitoring programs with other Permittees.

B. TMDL Monitoring Plans

Monitoring requirements established in TMDL Monitoring Plans, presented in Table E-1. Approved TMDL Monitoring Plans by Watershed Management Area, were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

C. Receiving Water Monitoring

The purposes of receiving water monitoring are to measure the effects of storm water and non-storm water discharges from the MS4 to the receiving water, to identify water quality exceedances, to evaluate compliance with TMDL WLAs and receiving water limitations, and to evaluate whether water quality is improving, staying the same or declining.

1. Receiving Water Monitoring Stations

Receiving water monitoring is linked to outfall based monitoring in order to gauge the effects of MS4 discharges on receiving water. Receiving water monitoring stations must be downstream of linked outfall monitoring stations.

The IMP, CIMP or stand-alone receiving monitoring plan (in the case of jurisdictional monitoring) must include a map identifying proposed wet weather and dry-weather monitoring stations. Receiving water monitoring stations may include historical mass emission stations, TMDL compliance monitoring stations, or other selected stations. The Permittee must describe how monitoring at the proposed locations will accurately characterize the effects of the discharges from the MS4 on the receiving water, and meet other stated objectives. The plan must also state whether historical mass emission stations will continue to be monitored and describe the value of past receiving water monitoring data in performing trends analysis to assess whether water quality if improving, staying the same or declining.

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2. Minimum Monitoring Requirements

Receiving water is to be monitored during both dry and wet weather conditions to assess the impact of non-storm water and storm water discharges. Wet weather and dry weather are defined in each watershed, consistent with the definitions in TMDLs approved within the watershed. Monitoring is to commence within 6 hours of the commencement of linked outfall monitoring. At a minimum, the parameters to be monitored and the monitoring frequency are the same as those required for the linked outfalls.

D. Outfall Based Monitoring

The MRP requires Permittees to conduct outfall monitoring, linked with receiving water monitoring, a study of Pyrethroids and their effects in receiving waters and bioassessment. The MRP allows the Permittees flexibility to integrate the minimum requirements of this Order, applicable TMDL monitoring plans and other regional monitoring obligations into a single IMP or within a CIMP.

Per Part VI.A.2 of this Order, the Permittee must establish a storm drain system map to aid in the development of the outfall monitoring plan and to assist the Regional Water Board in reviewing the logic and adequacy of the number and location of outfalls selected for monitoring. The map must include the storm drain network, receiving waters, other surface waters that may impact hydrology, including dams and dry weather diversions. In addition, the map must identify the location and identifying code for each major outfall within the Permittee's jurisdiction. The map must include overlays including jurisdictional boundaries, subwatershed boundaries and storm drain outfall catchment boundaries. The map must distinguish between storm drain catchment drainage areas and subwatershed drainage areas, as these may differ. In addition, the map must include overlays displaying land use, impervious area and effective impervious area (if available). To the extent known, outfalls that convey significant non-stormwater discharges (see Part I.F to this Fact Sheet), must also be identified on the map, and the map must be updated annually to include the total list of known outfalls conveying significant flow of non-storm water discharge.

E. Storm Water Outfall Based Monitoring

The purpose of the outfall monitoring plan is to characterize the storm water discharges from each Permittee's drainages within each subwatershed. Outfall based monitoring is also conducted to assess compliance with WQBELs. Under an IMP approach, each Permittee must identify at least one outfall within each subwatershed (HUC 12) within its jurisdictional boundary to monitor storm water discharges. The selected outfall(s) should receive drainage from an area representative of the land uses within the portion of its jurisdiction that drains to the subwatershed, and not be unduly influenced by storm water discharges from upstream jurisdictions or other NPDES discharges. It is assumed that storm water runoff quality will be similar for similar land use areas, and therefore runoff from a representative area will provide sufficient characterization of the entire drainage area. Factors that may impact storm water runoff quality include the

land use (industrial, residential, commercial) and the control measures that are applied. Factors that may impact storm water runoff volume include percent effective impervious cover (connected to the storm drain system), vegetation type, soil compaction and soil permeability.

Storm water outfall monitoring is linked to receiving water monitoring (see above). Monitoring must be conducted at least three times per year during qualifying rain events, including the first rain event of the year and conducted approximately concurrently (within 6 hours) before the commencement of the downstream receiving water monitoring.

Monitoring is conducted for pollutants of concern including all pollutants with assigned WQBELs. Parameters to be monitored during wet weather include: flow, pollutants subject to a TMDL applicable to the receiving water, pollutants listed on the Clean Water Act Section 303(d) list for the receiving water or a downstream receiving water. Flow is necessary to calculate pollutant loading. Sampling requirements, including methods for collecting flow-weighted composite samples, are consistent with the Ventura County Monitoring program (Order No. C17388).

For water bodies listed on the Clean Water Act section 303(d) list as being impaired due to sedimentation, siltation or turbidity, total suspended solids (TSS) and suspended sediment concentration (SSC) must be analyzed. TSS is the parameter most often required in NPDES permits to measure suspended solids. However, studies conducted by the United States Geological Survey (USGS) have found that the TSS procedure may not capture the full range of sediment particle sizes contributing to sediment impairments. Therefore both TSS and SSC are required in this Order.

For freshwater, the following field measurements are also required: hardness, pH, dissolved oxygen, temperature, and specific conductivity. Hardness, pH and temperature are parameters impacting the effect of pollutants in freshwater (i.e., metals water quality standards are dependent on hardness, ammonia toxicity is dependent on pH and temperature. Temperature and dissolved oxygen are interdependent and fundamental to supporting aquatic life beneficial uses. Specific conductivity is a parameter important to assessing potential threats to MUN and freshwater aquatic life beneficial uses.

Aquatic toxicity monitoring is required in the receiving water twice per year during wet weather conditions. Aquatic toxicity is a direct measure of toxicity and integrates the effects of multiple synergistic effects of known and unidentified pollutants. When samples are found to be toxic, a Toxicity Identification Evaluation must be performed in an attempt to identify the pollutants causing toxicity. Aquatic toxicity is required to be monitored in the receiving water twice per year during wet-weather rather than three times per year due to the expense of the procedure.

The monitoring data is to be accompanied by rainfall data and hydrographs, and a narrative description of the storm event, consistent with the requirements in the Ventura County MS4 (Monitoring Program—No. CI 7388). This information will allow the

Permittee and the Regional Water Board staff to evaluate the effects of differing storm events in terms of storm water runoff volume and duration and in-stream effects.

F. Non-Stormwater Outfall-Based Screening and Monitoring Program

The non-storm water outfall screening and monitoring program is intended to build off of Permittees prior efforts under Order No. 01-182 to screen all outfalls within their MS4 to identify illicit connections and discharges. Under this Order, the Permittees will use the following step-wise method to assess non-storm water discharges.

- Develop criteria or other means to ensure that all outfalls with significant non-storm water discharges are identified and assessed during the term of this Order.
- For outfalls determined to have significant non-storm water flow, determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, or from unknown sources.
- Refer information related to identified IC/IDs to the IC/ID Elimination Program (Part VI.D.9 of this Order) for appropriate action.
- Based on existing screening or monitoring data or other institutional knowledge, assess the impact of non-storm water discharges (other than identified IC/IDs) on the receiving water.
- Prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules.
- Conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
- Conduct monitoring or other investigations to identify the source of pollutants in nonstorm water discharges.
- Use results of the screening process to evaluate the conditionally exempt non-storm water discharges identified in Part III.A.2 and III.A.3 in this Order and take appropriate actions pursuant to Part III.A.4.d of this Order for those discharges that have been found to be a source of pollutants. Any future reclassification shall occur per the conditions in Parts III.A.2 or III.A.6 of this Order.

The screening and monitoring program is intended to maximize the use of Permittee resources by integrating the screening and monitoring process into existing or planned IMP/CIMP efforts. It is also intended to rely on the illicit discharge source investigation and elimination requirements in Part VI.D.9 of this Order and the MS4 Mapping requirements in Part VII.A of the MRP.

The screening and source identification component of the program is used to identify the source(s) and point(s) of origin of the non-storm water discharge. The Permittee is required to develop a source identification schedule based on the prioritized list of outfalls exhibiting significant non-storm water discharges. The schedule shall ensure that source investigations are to be conducted for no less than 25% of the outfalls in the inventory within three years of the effective date of this Order and 100% of the outfalls

within 5 years of the effective date of this Order. This will ensure that all outfalls with significant non-storm water discharges will be assessed within the term of this Order.

Additional requirements have been included to require the Permittee to develop a map and database of all outfalls with known non-storm water discharges. The database and map are to be updated throughout the term of this Order. If the source of the non-storm water discharge is determined to be an NPDES permitted discharge, a discharge subject to a Record of Decision approved by USEPA pursuant to section 121 of CERCLA, a conditionally exempt essential non-storm water discharge, or entirely comprised of natural flows as defined at Part III.A.d of this Order, the Permittee need only document the source and report to the Regional Water Board within 30 days of determination and in the next annual report. Likewise, if the discharge is determined to originate in an upstream jurisdiction, the Permittee is to provide notice and all characterization data to the upstream jurisdiction within 30 days of determination.

However, if the source is either unknown or a conditionally exempt non-essential nonstorm water discharge, each Permittee shall conduct monitoring required in Part IX.F of the MRP. Special provisions are also provided if the discharge is found to result from multiple sources.

The parameters to be monitored include flow rate, pollutants assigned a WQBEL or receiving water limitation to implement TMDL provisions for the respective receiving water, as identified in Attachments L - R of this Order, non-storm water action levels as identified in Attachment G of this Order, and CWA Section 303(d) listed pollutants for the respective receiving water. Aquatic Toxicity required only when receiving water monitoring indicates aquatic toxicity.

In an effort to provide flexibility and allow the Permittee to prioritize its monitoring efforts, the outfall based monitoring can be integrated within an IMP/CIMP. For outfalls subject to a dry weather TMDL, monitoring frequency is established per the approved TMDL Monitoring Program.

Unless specified in an approved IMP/CIMP, outfalls not subject to dry weather TMDLs must be monitored at least four times during the first year of monitoring. Due to the expense, Aquatic Toxicity monitoring is only required twice per year. The four times per year monitoring is reflective of the potential for high variability in the quality and volume of non-storm water discharges and duration as opposed to storm water discharges.

Collected monitoring data is to be compared against applicable receiving water limitations, water quality based effluent limitations, non-storm water action levels, or exhibited Aquatic Toxicity as defined in the Parts XII.F and G of the MRP and all exceedances are to be reported in the Integrated Monitoring Compliance Report required in Part XIX.A.5 of the MRP.

After the first year, monitoring for specific pollutants may be reduced to once per year, if the values reported in the first year do not exceed applicable non-storm water WQBELs, non-storm water action levels, or a water quality standard applicable to the receiving water.

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After two years of monitoring, the Permittee may submit a written request to the Executive Officer of the Regional Water Board requesting to eliminate monitoring for specific pollutants based on an analysis demonstrating that there is no reasonable potential for the pollutant to exist in the discharge at a concentration exceeding applicable water quality standards.

1. Dry Weather Screening Monitoring

a. Background

Clean Water Act section 402(p) regulates discharges from municipal separate storm sewer systems (MS4s). Clean Water Act section 402(p)(3)(B)(ii) requires the Permittees to effectively prohibit non-storm water from entering the MS4.

Non-exempted, non-storm water discharges are to be effectively prohibited from entering the MS4 or become subject to another NPDES permit (55 Fed. Reg. 47990, 47995 (Nov.16, 1990)). Conveyances which continue to accept non-exempt, non-storm water discharges do not meet the definition of MS4 and are not subject to Clean Water Act section 402(p)(3)(B) unless the discharges are issued separate NPDES permits. Instead, conveyances that continue to accept non-exempt, non-storm water discharges that do not have a separate NPDES permit are subject to sections 301 and 402 of the CWA (55 Fed. Reg. 47990, 48037 (Nov. 16, 1990)).

In part, to implement these statutory provisions, Order No. 01-182 included nonstorm water discharge prohibitions. Several categories of non-storm water discharges are specifically identified as authorized or conditionally exempt nonstorm water discharges, including:

- i. Discharges covered under an NPDES permit
- ii. Discharges authorized by USEPA under CERCLA
- iii.Discharges resulting from natural flows
- iv.Discharges from emergency fire fighting activity
- v. Some Categories of Discharges incidental to urban activities

Further, as another mechanism to effectively prohibit non-storm water discharges into the MS4, Order No. 01-182 also requires the Los Angeles County MS4 Co-Permittees to implement an illicit connections and illicit discharges elimination program as part of their storm water management program pursuant to 40 CFR section 122.26(d)(2)(iv)(B).

Finally, Monitoring and Reporting Program CI 6948, a part of Order No. 01-182, required dry weather monitoring at the Mass Emissions Stations (MES) to estimate pollutant contributions and determine if the MS4 is contributing to exceedances of applicable water quality standards during dry weather.

b. Evaluation of Dry Weather Data

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in the Basin Plan and other state plans and policies, or any applicable water quality criteria contained in the California Toxics Rule (CTR) and National Toxics Rule (NTR).

In an effort to evaluate the Discharger's program to effectively prohibit non-storm water discharges into the MS4, as well as to determine whether MS4 discharges are potentially contributing to exceedances of water quality standards, the Reasonable Potential Analysis (RPA) process was used as a screening tool. In doing so, dry weather monitoring data submitted by the Discharger was evaluated to identify where non-storm water discharges may impact beneficial uses and where additional monitoring and/or investigations of non-storm water discharges should be focused.

Order No. 01-182 and Monitoring and Reporting Program No. 6948 required the Discharger to implement core monitoring at seven mass emission stations:

- Ballona Creek
- Malibu Creek
- Los Angeles River
- San Gabriel River (representing the upper portion of the San Gabriel River Watershed Management Area)
- Coyote Creek (representing the lower portion of the San Gabriel River Watershed Management Area)
- Dominguez Channel
- Santa Clara River

In addition to wet weather monitoring requirements at each of the mass emission stations, a minimum of two dry weather samples were required each year. Monitoring was required for conventional pollutants (BOD, TSS, pH, fecal coliform, oil and grease), priority pollutants, and a variety of other nonconventional pollutants (e.g., nutrients, dissolved oxygen, salinity/conductivity).

Dry weather monitoring data were compiled from Annual Stormwater Monitoring Reports submitted by the Los Angeles County Department of Public Works for the period from 2005 to 2011 to reflect the most recent data. The Annual Stormwater Monitoring Reports include the results for dry weather samples that were collected from 2005 to 2011 on 15 different dates. For each monitored parameter, the most stringent applicable water quality objective/criterion was identified from the Basin Plan and the CTR at 40 CFR section 131.38. The following assumptions were made when conducting the analysis:

- The mass emissions stations represented only freshwater segments. Accordingly, CTR criteria for the protection of freshwater aquatic life were selected for comparison to monitoring results.
- For hardness-dependent metals, criteria were derived by using the lowest reported dry-weather hardness value for each mass emission station for the period of 2005 to 2011.
- For screening purposes the criteria associated with the most protective beneficial use for any segment within the watershed was selected for comparison to monitoring results.
- Basin Plan surface water quality objectives for minerals (i.e., total dissolved solids, sulfate, and chloride) apply to specific stream reaches within each watershed and are provided in Chapter 3 of the Basin Plan. Where no specific objectives are identified, footnote f to Table 3-8 provides guidelines for protection of various beneficial uses. When guidelines were presented as a range, the most protective (low end of range) value was selected and applied according to beneficial uses in the watershed.
- With the exception of bacteria, the water quality objectives used for the analysis are the most current in effect. Since adoption of Order No. 01-182 in 2001, some Basin Plan objectives and CTR criteria have been amended. As a result, the pollutants monitored under the MRP for Order No. 01-182 may not necessarily reflect current objectives.
- *E coli* bacteria was not required as part of the MRP to Order No. 01-182, thus screening for bacteria was based solely on fecal coliform. Monitoring results for fecal coliform were compared to the Basin Plan fecal coliform objective in effect during the monitoring period. The Basin Plan objective for bacteria was amended in December 2011 to omit fecal coliform as a fresh water objective. The existing numeric bacteria objectives are expressed as a single sample maximum and a geometric mean. In this screening, limited data precluded calculation of geometric means, therefore, the geometric mean objective was treated as a "not-to-exceed" criterion for screening purposes. The geometric mean objective to protect primary contact recreation beneficial use (REC-1) uses in freshwaters).
- Within a given watershed, where the Basin Plan designates a "Potential" beneficial use of MUN, drinking water maximum contaminant levels (MCLs) were not applied as the most stringent objectives. Within a given watershed, where the Basin Plan designates "Potential" or "Intermittent" for beneficial uses other than MUN, the appropriate protective objectives were used for screening. This is consistent with Basin Plan requirements and existing permitting procedures.

The maximum reported pollutant concentration was compared to the most stringent applicable water quality objective to determine if there was potential for receiving water concentrations to exceed water quality objectives.

Table F-10 summarizes the results of the RPA analysis based on evaluation of the 15 sets of data for the period of 2005 to 2011 for each of the mass emission stations. Generally, all priority pollutant organic parameters were reported as below detection levels at practical quantitation levels (PQLs) consistent with the minimum levels (MLs) listed in the SIP. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported fecal coliform bacteria, cyanide, copper, and selenium concentrations appear to consistently exceed objectives/criteria in all watersheds at relatively high levels. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for mercury are largely due to analytical detection levels that were higher than the applicable criterion.

Parameter	Santa Clara	Los Angeles	Los Angeles Dominguez	Ballona Creek	Malibu Crash	San Gabriel River	
Parameter	River	River	Channel	Ballona Creek	Malibu Creek	Upper Portion	Lower Portion
pН	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW Objective	No FW Objective)	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Chloride	15/15	15/15	No Objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	√1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective
Methylene Blue Active Substances	4/15	0/15	No Objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No Objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No Objective	No Objective	13/15	14/14	15/15
Turbidity ²	0/15	2/15	No Objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	1515	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/1)	0/15	0/15	10/10	0/15

Table F-10.Summary of LA County Watersheds and Frequency of Receiving WaterExceeding Criteria - 2005 to 2011- Dry Season Data Analysis¹

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- ^{1.} Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.
- ^{2.} The Basin Plan objective for turbidity for the protection of MUN is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over natural conditions. Since inadequate data were available to assess criteria expressed as incremental changes, only the MCL was considered in the analysis.

c. Requirements for Controlling Non-Storm Water Discharges

The USEPA's approach for non-storm water discharges from MS4s is to regulate these discharges under the existing CWA section 402 NPDES framework for discharges to surface waters. The NPDES program (40 CFR section 122.44(d)) utilizes discharge prohibitions and effluent limitations as regulatory mechanisms to regulate non-storm water discharges, including the use of technology- and water quality-based effluent limitations. Non-numerical controls, such as BMPs for non-storm water discharges may only be authorized where numerical effluent limitations are infeasible.

As described in Table F-10 above, there were a number of pollutants for which it was determined that receiving water concentrations at the mass emission stations indicate possible exceedances of water quality standards within the watershed. However, for waterbody-pollutant combinations not subject to a TMDL, there is uncertainty regarding whether exceedances occurred within specific segments where standards apply; the extent to which non-storm water discharges from the MS4 have caused or contributed to any exceedances; and whether the exceedances are attributable to any one or more specific MS4 outfalls within the watershed management area.

Given the need for additional data on non-stormwater discharges from the MS4 where a TMDL has not been developed, USEPA and the State have used action levels as a means to gauge potential impact to water quality and to identify the potential need for additional controls for non-stormwater discharges in the future. If these action levels are exceeded, then additional requirements (e.g., numeric effluent limitations, increased monitoring, special studies, additional BMPs) are typically used to address the potential impacts. In this case, non-storm water action levels are applicable to non-storm water discharges from that MS4 outfall. Non-storm water discharges from the MS4 are those which occur during dry weather conditions. These action levels are not applied to storm water discharges, as defined within this Order. Storm water discharges regulated by this Order are required to meet the MEP standard and other provisions determined necessary by the State to control pollutants and have separate requirements under this Order.

The use of action levels in this Order does not restrict the Regional Water Boards ability to modify this Order in accordance with 40 CFR section 122.62 to include numeric effluent limitations should monitoring data indicate that controls beyond action levels are necessary to ensure that non-storm water discharges do not cause or contribute to exceedances of water quality standards.

i. Approach for Deriving Action Levels

Where exceedances are indicated in Table F-10 and where a TMDL has not been developed, action levels are applied as a screening tool to indicate where non-storm water discharges, including exempted flows and illicit connections may be causing or contributing to exceedances of water quality objectives. Action levels in this Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan, the Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the CTR.

(1) Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries

Priority Pollutants Subject to the CTR

Priority pollutant water quality criteria in the CTR are applicable to all inland surface waters, enclosed bays, and estuaries. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with Section 131.38(c)(3):

- For waters in which the salinity is equal to or less than 1 part per thousand (ppt), the freshwater criteria apply.
- For waters in which the salinity is greater than 10 ppt 95 percent or more of the time, the saltwater criteria apply.
- For waters in which the salinity is between 1 ppt and 10 ppt, the more stringent of the freshwater or saltwater criteria apply.

For continuous discharges, 40 CFR section 122.45(d)(1) specifies daily maximum and average monthly effluent limitations. Because of the uncertainty regarding the frequency of occurrence and duration of nonstorm water discharges through the MS4, average monthly action levels (AMALs) and maximum daily action levels (MDALs) were calculated following the procedure based on the steady-state model, available in Section 1.4 of the SIP. The SIP procedures were used to calculate action levels for CTR priority pollutants and other constituents for which the Basin Plan contains numeric objectives.

Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is being allowed.

40 CFR section 122.45(c) requires that effluent limitations for metals be expressed as total recoverable concentration; therefore it is appropriate to include action levels also as a total recoverable concentration. The SIP requires that if it is necessary to express a dissolved metal value as a total recoverable and a site-specific translator has not yet been developed, the

Regional Water Board shall use the applicable conversion factor contained in the 40 CFR section 131.38.

Using nickel as an example, and assuming application of saltwater criteria (e.g., a situation where an MS4 outfall discharges to an estuary), the following demonstrates how action levels were established for this Order. The tables in Attachment H provide the action levels for each watershed management area addressed by this Order using the process described below.

The process for developing these limits is in accordance with Section 1.4 of the SIP. Two sets of AMAL and MDAL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health (consumption of organisms only). The AMALs and MDALs for aquatic life and human health are compared, and the most restrictive AMAL and the most restrictive MDAL are selected as the action level.

Step 1: For each constituent requiring an action level, identify the applicable water quality criteria or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state mass balance equation:

ECA = C + D(C-B) when C > B, and ECA = C when $C \le B$,

Where:

- C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators (criteria for saltwater are independent of hardness and pH).
- D = The dilution credit, and
- B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

ECA = C

For nickel the applicable ECAs are:

 $ECA_{acute} = 75 \, \mu g/L$

ECA_{chronic}= $8.3 \,\mu$ g/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the

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multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

LTA_{acute} = ECA_{acute} x Multiplier_{acute 99}

LTA_{chronic}= ECA_{chronic} x Multiplier_{chronic 99}

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. For nickel, a CV of 0.6 was assumed.

For nickel, the following data were used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

CV	ECA Multiplier _{acute} ECA Multiplier _{chronic}	
0.6	0.32	0.53

 $LTA_{acute} = 75 \ \mu g/L \ x \ 0.32 = 24 \ \mu g/L$

 $LTA_{chronic} = 8.3 \ \mu g/L \ x \ 0.53 = 4.4 \ \mu g/L$

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or LTA_{chronic}

For nickel, the most limiting LTA was the LTA_{chronic}

 $LTA_{nickel} = LTA_{chronic} = 4.4 \ \mu g/L$

Step 4: Calculate the action levels by multiplying the LTA by a factor (multiplier). Action levels are expressed as AMAL and MDAL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the action levels. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMAL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

AMAL_{aquatic life} = LTA x AMAL_{multiplier 95}

MDAL_{aquatic life} = LTA x MDAL_{multiplier 99}

AMAL multipliers are based on a 95th percentile occurrence probability, and the MDAL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For nickel, the following data were used to develop the AMAL and MDAL for action levels using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}
4	0.6	3.11	1.55

Therefore:

 $AMAL = 4.4 \ \mu g/L \ x \ 1.55 = 6.8 \ \mu g/L$

MDAL= $4.4 \ \mu g/L \ x \ 3.11 = 14 \ \mu g/L$

Step 5: For the ECA based on human health, set the AMAL equal to the ECA_{human health}

AMAL_{human health} = ECA_{human health}

For nickel:

 $AMAL_{human health} = 4,600 \ \mu g/L$

Step 6: Calculate the MDAL for human health by multiplying the AMAL by the ratio of the Multiplier_{MDAL} to the Multiplier_{AMAL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

 $MDAL_{human health} = AMAL_{human health} \times (Multiplier_{MDAL} / Multiplier_{AMAL})$

For nickel, the following data were used to develop the MDAL_{human health}:



No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}	Ratio
4	0.6	3.11	1.55	2.0

For nickel:

MDAL_{human health}= 4,600 μ g/L x 2 = 9,200 μ g/L

Step 7: Select the lower of the AMAL and MDAL based on aquatic life and human health as the non-storm water action level for this Order.

I	AMALaquatic life	MDAL _{aquatic life}	AMAL _{human health}	MDAL _{human health}
	6.8	14	4,600	9,200

For nickel, the lowest (most restrictive) levels are based on aquatic toxicity and serve as the basis for non-storm water action levels included in this Order.

Basin Plan Requirements for Other Pollutants

A number of pollutants were identified that exceed applicable Basin Plan objectives. These objectives however, are not amenable to the SIP process for developing action levels.

Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Water Board on October 25, 2001, served as the basis for the action levels for bacteria. Subsequently, the Basin Plan was amended through Order No. R10-005 (effective on December 5, 2011) to remove the freshwater fecal coliform numeric objective while retaining the freshwater objective for *E. coli*. The dry-weather evaluation conducted for fecal coliform indicates of a need for a bacteria action level. Since the Basin Plan no longer contains freshwater objectives for fecal coliform, action levels have been developed for *E. coli* in freshwater. The current bacteria objectives (saltwater and freshwater) are applied directly to the MS4 outfalls discharging to freshwaters to serve as action levels.

The Basin Plan, in Tables 3-5 through 3-7, include chemical constituents objectives based on the incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. The Basin Plan in Tables 3-8 and 3-10 also includes mineral quality objectives that apply to specific watersheds and stream reaches and where indicated by the beneficial use of ground water recharge (GWR). These objectives contained in the Basin Plan are listed as not-to-exceed values. Consistent with the approach used by the Regional Water Board

in other Orders for dry weather discharges, these not-to-exceed values will be applied as AMALs in this Order.

(2) Discharges to the Surf Zone

From the Table B water quality objectives of the Ocean Plan, action levels are calculated according to Equation 1 of the Ocean Plan for all pollutants:

Ce = Co + Dm(Co-Cs)

Where:

- Ce = the Action Level $(\mu g/L)$
- Co = the water quality objective to be met at the completion of initial dilution (μ g/L)
- $Cs = background seawater concentration (\mu g/L)$
- Dm = minimum probable initial dilution expressed as parts seawater per part wastewater

The Dm is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. It is conservatively assumed that when non-storm water discharges to the surf zone occur, that conditions are such that no rapid mixing would occur. Therefore, an initial dilution is not allowed and the formula above reduces to:

Ce = Co

The following demonstrates how the action levels for copper are established.

Copper

Ce = $3 \mu g/L$ (6-Month Median) Ce = $12 \mu g/L$ (Daily Maximum) Ce = $30 \mu g/L$ (Instantaneous Maximum)

ii. Applicability of Action Levels

The action levels included in this Order apply to pollutants in non-storm water discharges from the MS4 to receiving waters that are not already subject to WQBELs to implement TMDL wasteload allocations applicable during dry weather.

This Order requires outfall-based monitoring throughout each Watershed Management Area, including monitoring during dry weather. The dry weather

monitoring data will be evaluated by the Permittee(s) in comparison to all applicable action levels.

iii. Requirements When Action Levels are Exceeded

When monitoring data indicates an action level is exceeded for one or more pollutants, then the Permittee will be required to implement actions to identify the source of the non-storm water discharge, and depending on the identified source, implement an appropriate response. With respect to action levels, the Permittee will have identified appropriate procedures within the Watershed Management Program (Part VI.C) and the Illicit Connection and Illicit Discharge Elimination Program (Part VI.D.9).

G. New Development/Re-Development Effectiveness Monitoring

This Order requires the use of Low Impact Development (LID) designs to reduce storm water runoff (and pollutant discharges) from new development or re-development projects. In areas that drain to water bodies that have been armored or are not natural drainages, the goal of this requirement is to protect water quality by retaining on-site the storm water runoff from the 85th percentile storm event. This is the design storm used throughout most of California for water quality protection. If it is not technically feasible due to site constraints (e.g., close proximity to a drinking water supply, slope instability) or if instead the project proponent is proposing to supplement a groundwater replenishment project, the project proponent may provide treatment BMPs to reduce pollutant loading in storm water runoff from the project site. Flow through treatment BMPs are less effective in reducing pollutant loadings than on-site retention for the design storm. Therefore the project proponent must mitigate the impacts further by providing for LID designs at retrofit projects or other off-site locations within the same subwatershed. The effectiveness monitoring is designed to assess and track whether post construction operation of the LID designs are effective in retaining the design storm runoff volume.

For projects located in natural drainages, the goal of the LID design is to retain the predevelopment hydrology, unless a water body is not susceptible to hydromodification effects (e.g., estuaries or the ocean). Smaller projects that will disturb less than 50 acres of land are presumed to meet the criteria if the project retains the storm water runoff from the 95th percentile storm. The effectiveness monitoring in this situation should be design to confirm that storm water runoff is not occurring for any storm at or less than the 95th percentile storm. Projects may also demonstrate compliance by showing that the erosion potential will be approximately 1 as described in Attachment J of this Order. For larger projects, the project proponent may be required to conduct modeling to demonstrate compliance by comparing the hydrographs of a two-year storm for the pre-development and post-development conditions, or by comparing the flow duration curves for a reference watershed and the post project condition. Flow monitoring will be required to substantiate the simulated hydrographs or flow duration curves.

H. Regional Studies

1. Pyrethroid Insecticides Study Requirements

In addition to routine monitoring, this Order requires the Permittees to conduct regional studies of Pyrethroid toxicity¹ in receiving waters as Pyrethroid toxicity has become an emerging issue in urban drainages. The Pyrethroid Toxicity monitoring program required in this Order is based on the Ventura County MS4 Monitoring and Reporting Plan.

The results of the receiving water monitoring, Pyrethroid Study and bioassessment surveys may be used in to optimize Watershed Management Program actions, as described in Part VI.C. of this Order (Watershed Management Programs).

2. Southern California Stormwater Monitoring Coalition Watershed Monitoring Program

Also, as a condition to this Order, Permittees must participate in the bioassessment studies conducted under the Southern California Stormwater Monitoring Coalition Watershed Monitoring Program. Bioassessment provides a direct measure of whether aquatic life beneficial uses are fully supported and integrates the effects of multiple factors including pollutant discharges, changes in hydrology, geomorphology, and riparian buffers.

I. Aquatic Toxicity Monitoring Methods

Based on the stated goals of the CWA, the USEPA and individual states implement three approaches to monitoring water quality. These approaches include chemicalspecific monitoring, toxicity testing, and bioassessments (USEPA 1991a). Each of the three approaches has distinct advantages and all three work together to ensure that the physical, chemical and biological integrity of our waters are protected. Water quality objectives have been developed for only a limited universe of chemicals. For mixtures of chemicals with unknown interactions or for chemicals having no chemical-specific objectives, the sole use of chemical-specific objectives to safeguard aquatic resources would not ensure adequate protection. Aquatic life in southern California coastal watersheds are often exposed to nearly 100% effluent from wastewater treatment plants, urban runoff, or storm water; therefore, toxicity testing and bioassessments are also critical components for monitoring programs as they offer a more direct and thorough confirmation of biological impacts. The primary advantage of using the toxicity testing approach is that this tool can be used to assess toxic effects (acute and chronic) of all the chemicals in aqueous samples of effluent, receiving water, or storm water. This allows the cumulative effect of the aqueous mixture to be evaluated, rather than

¹ Weston et al. 2006. *Pyrethroid Pesticide Insecticides and Sediment Toxicity in Urban Creeks from California and Tennessee*. Environ. Sci. Technol. 2006. 40, 1700-1706.

Holmes et al. 2008. Statewide Investigation of the Role of Pyrethroid Pesticides in Sediment Toxicity in California's Urban Waterways. Environ. Sci. Tehcnol.2008. 7003-7009.

the toxic responses to individual chemicals (USEPA, EPA Regions 8, 9, and 10 Toxicity Training Tool, January 2010).

Based on available data from the LA County MS4 Permit Annual Monitoring Reports, samples collected at mass emissions stations during both wet weather and dry weather have been found to be toxic in the San Gabriel River, Coyote Creek, the Los Angeles River, Dominguez Channel, Ballona Creek, Malibu Creek, and the Santa Clara River, demonstrating the need for this toxicity monitoring requirement (see Table below).

Summary of Toxicity by Watershed										
Source and Season	San Gabriel River	Coyote Creek	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	Santa Clara River			
Integrated Receiving Water Impacts Report (1994-2005)										
Wet		CDS, CDR,		CDS, CDR,						
Weather	-	SUF	CDS, SUF	SUF	CDR, SUF	CDR	CDS N			
Dry										
Weather	-	SUF	SUF	SUF	SUF	-				
Annual Monitoring Reports (2005-2010)										
Wet Weather										
				CDS, CDR,						
2005-06	-	-	SUF	SUF	SUF	-	- T			
2006-07	SUF	SUF	SUF	SUF	SUF	SUF	SUF			
2007-08	SUF	-	-	SUF	-	CDS,CDR,SUF	SUF			
2008-09	-	SUF	SUF	-	SUF	CDS,CDR,SUF	-			
2009-10	-	-	-	-	-	-	- V			
			Dry W	eather						
2005-06	-	-	-	-	_	CDS,CDR	_ _			
2006-07	-	-	-	-	SUF	-	-			
2007-08	-	-	CDS,CDR	-	SUF	-	-			
2008-09	-	-	SUF	-	-	-	-			
2009-10	-	-	-	-	-	-	-			

Notes:

CDS= Ceriodaphnia survival toxicity

SUF= Sea Urchin fertilization toxicity

CDR= Ceriodaphnia reproduction

toxicity

This Order requires Permittee(s) to conduct acute toxicity tests (96-hour static renewal toxicity tests) on water samples, by methods specified in 40 CFR Part 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition.

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In the selection of test species, USEPA recommends the use of species from ecologically diverse taxa. The recommendation is to screen an effluent with at least three species (a fish, an invertebrate, and a plant) for chronic testing and two species (a fish and an invertebrate) for acute testing. This recommendation is based upon the fact that there are species sensitivity differences among different groups of organisms to different toxicants (USEPA, EPA Regions 8, 9, and 10 Toxicity Training Tool, January 2010).

For freshwater, this Order requires the Permittee(s) to conduct the chronic toxicity test in accordance with USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition, October 2002, (EPA/821/R-02/013), or a more recent edition.

For brackish water, this Order requires the Permittee(s) to conduct the chronic toxicity test in accordance with USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995, (EPA/600/R-95/136), or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, (EPA/821-R-02-014), or a more recent edition.

This Order proposes the use of 3 organisms for chronic toxicity testing, but for acute testing, where the fish species is found to be the most sensitive of the two species tested, only fish (2 species) will be used for acute testing in cases where 2 fish species, tolerant of different salinities) are required based on the expected salinity of the receiving water. In cases where only one fish species is needed, both the fish and invertebrate test will be performed. In cases where the invertebrate is the most sensitive species, both the invertebrate and fish tests will be required. Rescreening of the test species is required to verify the most sensitive test species are being used.

Furthermore, the toxicity component of the Monitoring Program includes toxicity identification procedures so that pollutants that are causing or contributing to acute or chronic effects in aquatic life exposed to these waters can be identified and others can be discounted. Once these constituents are identified, the first phase of a Toxicity Reduction Plan (TRE) is to conduct a Toxicity Identification Plan (TIE). TIEs are needed to identify the culprit constituents to be used to prioritize management actions.

In this Order, Permittee(s) are required to prepare and submit a copy of the Permittee(s)'s initial investigation TRE workplan to the Executive Officer of the Regional Water Board for approval. The Permittee(s) shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Permittee(s) intends to follow if toxicity is detected, and shall include, at a minimum:

• A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and MCM and/or BMP efficiency.

- A description of the Permittee(s) methods for minimizing the toxicity of storm water and non-storm water discharges.
- If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

TRE development and implementation is directly tied to the integrated monitoring programs and watershed management program, to ensure that management actions and follow-up monitoring are implemented when problems are identified. Permittees are encouraged to coordinate TREs with concurrent TMDLs where overlap exists. If a TMDL is being developed or implemented for an identified toxic pollutant, much of the work necessary to meet the objectives of a TRE may already be underway, and information and implementation measures should be shared.

Overall, the toxicity monitoring program will assess the impact of storm water and nonstorm water discharges on the overall quality of aquatic fauna and flora and implement measures to ensure that those impacts are eliminated or reduced. As stated previously, chemical monitoring does not necessarily reveal the totality of impacts of storm water on aquatic life and habitat-related beneficial uses of water bodies. Therefore, toxicity requirements are a necessary component of the MS4 monitoring program.

J. Special Studies

Requirements to conduct special studies as described in TMDL Implementation Plans that were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

K. Annual Reporting

The Annual Reporting requirement was also required in Order No. 01-182 and provides summary information to the Regional Water Board on each Permittee's participation in one or more Watershed Management Programs; the impact of each Permittee(s) storm water and non-storm water discharges on the receiving water; each Permittee's compliance with receiving water limitations, numeric water quality based effluent limitations, and non-storm water action levels; and the effectiveness of each Permittee(s) control measures in reducing discharges of pollutants from the MS4 to receiving waters. In addition the Annual Report allows the Regional Water Board to assess whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Control Measures and whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects. The Annual Report provides the Permittee(s) a forum to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures as well as a way to present data and conclusions in a transparent manner so as to allow review and understanding by the general public. Overall the Annual Report allows Permittee's to focus reporting efforts on watershed condition, water quality assessment, and an evaluation of the effectiveness of control measures.

L. Watershed Summary Information, Organization and Content

As a means to establish a baseline and then identify changes or trends, for each watershed, each Permittee shall provide the information on its watershed management area, subwatershed area, and drainage areas within the subwatershed area in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information should be provided for each watershed within the Permittee's jurisdiction. Alternatively, permittees participating in a Watershed Management Program may provide the requested information through the development and submission of a Watershed Management Program report or within a TMDL Implementation Plan Annual Report. However, in either case, the Permittee shall bear responsibility for the completeness and accuracy of the referenced information. This reporting requirement helps to ensure that both the Permittee and the Regional Water Board have up to date information on the status of each of their watersheds and subwatersheds.

M. Jurisdictional Assessment and Reporting

The requested information shall be provided for each watershed within the Permittee's jurisdiction. Annual Reports submitted on behalf of a group of Watershed Permittees shall clearly identify all data collected and strategies, control measures, and assessments implemented by each Permittee within its jurisdiction as well as those implemented by multiple Permittees on a watershed scale. Permittees must provide information on storm water control measures, an effectiveness assessment of storm water control measures, information on non-storm water control measures, an integrated monitoring compliance report, information on adaptive management strategies, and supporting data and information. The addition of this reporting requirement serves as a mechanism to evaluate and ensure the protection of receiving water quality on a watershed scale.

N. TMDL Reporting

Reporting requirements included in this Order and Attachment E (MRP) were established during the TMDL development process for each individual TMDL. These reporting requirements have incorporated into this Order to implement TMDL requirements.

XIV. SOCIOECONOMIC CONSIDERATIONS

The California Supreme Court has ruled that although California Water Code section 13263 requires the Water Boards to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Water Boards may not consider the factors to justify imposing pollutant restriction that are less stringent than the applicable federal requlations require. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Water Boards consider the factors described in section 13241 as they apply to those specific restrictions.

The Regional Water Board finds that the requirements in this Order are not more stringent than the minimum federal requirements. Among other requirements, federal law requires MS4 permits to include requirements to effectively prohibit non-storm water discharges into the storm sewers, in addition to requiring controls to reduce the discharge of pollutants in storm water to the maximum extent practicable and other provisions that the agency determines are necessary for the control of pollutants in MS4 discharges. The requirements in this Order may be more specific or detailed than those enumerated in federal regulations under 40 CFR § 122.26 or in USEPA guidance. However, the requirements have been designed to be consistent with and within the federal statutory mandates described in Clean Water Act section 402(p)(3)(B)(ii) and (iii) and the related federal regulations and guidance. Consistent with federal law, all of the conditions in this Order could have been included in a permit adopted by USEPA in the absence of the in lieu authority of California to issue NPDES permits. Moreover, the inclusion of numeric WQBELs in this Order does not cause the permit to be more stringent than current federal law. Federal law authorizes both narrative and numeric effluent limitations to meet state water quality standards. The inclusion of WQBELs as discharge specifications in an NPDES permit in order to achieve compliance with water quality standards is not a more stringent requirement than the inclusion of BMP based permit limitations to achieve water quality standards. (State Water Board Order No. WQ 2006-0012 (Boeing).) Therefore, a 13241 analysis is not required for permit requirements that implement the effective prohibition on the discharge of non-storm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law...

Notwithstanding the above, the Regional Water Board has developed an economic analysis of this Order, consistent with California Water Code section 13241. That analysis is provided below. The Regional Water Board has considered all of the evidence that has been presented regarding the 13241 factors in adopting this Order. The Regional Water Board finds that the requirements in this Order are reasonably necessary to protect beneficial uses identified in the Basin Plan, and the econimic information related to costs of compliance and other section 13241 factors are not sufficient to justify failing to protect those beneficial uses. Where appropriate, the Regional Water Board has provided Permittees with additional time to implement control measures to achieve final WQBELs and/or water quality standards.

A. Past, present and probable future beneficial uses of water.

Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region, which are the receiving waters for MS4 discharges. Beneficial uses are also identified in the findings of this Order and further discussed relative to TMDLs in section VI.D of this Fact Sheet.

B. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

Environmental characteristics of each of the Watershed Management Areas covered by this Order, including the quality of water, are discussed in the Region's Watershed Management Initiative Chapter as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters.

- Santa Clara River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_clara_river_watershed.doc</u>
- Santa Monica Bay Watershed Management Area www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_ monica_bayWMA/santa_monica_bayWMA.doc
- Dominguez Channel Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/dominguez_channelWMA.doc</u>
- Los Angeles River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_angeles_river_watershed/los_angeles_river_watershed.doc</u>
- San Gabriel River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/san_g</u> <u>abriel_river_watershed/san_gabriel_river_watershed.doc</u>
- Los Cerritos Channel and Alamitos Bay Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_cerritos_channelWMA/los_cerritos_channelWMA.doc</u>
- Middle Santa Ana River Watershed Management Area <u>http://www.waterboards.ca.gov/santaana/water_issues/programs/wmi/index.shtml</u> <u>http://www.sawpa.org/watershedinfo.html</u>

The quality of water in major receiving waters for MS4 discharges has been routinely monitored by Permittees through the Monitoring and Reporting Program under Order No. 01-182. Below are summaries of water quality exceedances reported for the 2010-2011 reporting year.

Summary of Constituents that Did Not Meet Water Quality Objectives at Mass Emission Stations during 2010-2011 for One or More Events

Mass Emission/Watershed	Wet	Dry		
Ballona Creek (S01) ²	Fecal coliforms ³ pH ⁴ Dissolved zinc	рН ³		
Malibu Creek (S02)	Fecal coliforms Cyanide pH ³ Sulfate	Fecal coliforms Sulfate		
Los Angeles River (S10) ¹	Fecal coliforms ² pH ³ Dissolved zinc Cyanide	Fecal coliforms pH ³		
Coyote Creek (S13)	Fecal coliforms ² pH ³ Dissolved zinc	Fecal coliforms		
San Gabriel River (S14)	Fecal coliforms ² pH ³			
Dominguez Channel (S28) ¹	Fecal coliforms ² Dissolved copper Dissolved zinc	Fecal coliforms pH ³		
Santa Clara River (S29)	Fecal coliforms pH ³ Dissolved zinc			

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² More urbanized watersheds.

³ Subject to the fecal coliform water quality objective high-flow suspension (LARWQCB, 2003).

⁴ pH was evaluated outside of holding time.

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The following table summarizes the results of an analysis based on evaluation of the 15 sets of dry weather data for the period of 2005 to 2011 for each of the mass emission stations. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported results for fecal coliform bacteria, cyanide, copper, and selenium concentrations consistently exceeded water quality objectives in all watersheds. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for mercury are largely due to analytical detection levels that were higher than the applicable objective.

						ata / maryoloj	
	Santa	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	San Gabriel River	
Parameter	Clara River					Upper Portion	Lower Portion
рН	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW	No FW	No FW	No FW	No FW	No FW	No FW
	Objective	Objective)	Objective	Objective	Objective	Objective	Objective
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW	No FW	No FW	No FW	No FW	No FW	No FW
	Objective	Objective	Objective	Objective	Objective	Objective	Objective
Chloride	15/15	15/15	No Objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective
Methylene Blue Active Substances	4/15	0/15	No Objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No Objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No Objective	No Objective	13/15	14/14	15/15
Turbidity ²	0/15	2/15	No Objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	1515	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/1)	0/15	0/15	10/10	0/15

Summary of LA County Watersheds and Frequency of Receiving Water Exceeding Water Quality Objectives (2005 to 2011 - Dry Season Data Analysis)¹

- ^{1.} Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.
- ^{2.} The Basin Plan objective for turbidity for the protection of MUN is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over natural conditions. Since inadequate data were available to assess criteria expressed as incremental changes, only the MCL was considered in the analysis.
- ^{3.} FW means freshwater

C. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

Since 2001, municipalities both locally and nationally have gained considerable experience in the management of municipal storm water and non-storm water discharges. The technical capacity to monitor storm water and its impacts on water quality has also increased. In many areas, monitoring of the impacts of storm water on water quality has become more sophisticated and widespread. Better information on the effectiveness of storm water controls to reduce pollutant loadings and address water quality impairments is now available. The International Stormwater BMP Database (<u>http://www.bmpdatabase.org/</u>) provides extensive information of the performance capabilities of storm water controls. Additionally, the County of Los Angeles conducted a BMP effectiveness study as a requirement of Order No. 01-182.⁵

Generally, improvements in the quality of receiving waters impacted by MS4 discharges can be achieved by reducing the volume of storm water or non-storm water discharged through the MS4 to receiving waters; reducing pollutant loads to storm water and non-storm water through source control/pollution prevention, including operational source control such as street sweeping, public education, and product or materials elimination or substitution; and removing pollutants that have been loaded into storm water or non-storm water before they enter receiving waters, through treatment or diversion to a sanitary sewer. The following factors are generally accepted to affect pollutant concentrations in MS4 discharges⁶:

- Land use
- Climatic conditions
- Season (i.e. for southern California, dry season and winter wet season)
- Percentage imperviousness (in particular, "effective impervious area" or "EIA")
- Rainfall amount and intensity (including seasonal "first-flush" effects)
- Runoff amount
- Watershed size

In their 2010-2011 Annual Report, Permittees identified the following storm water and nonstorm water pollutant control measures as particularly effective:

⁵ County of Los Angeles Department of Public Works. "Los Angeles County BMP Effectiveness Study," August 2005.

⁶ Maestre, Alexander and Robert Pitt. "Identification of Significant Factors Affecting Stormwater Quality Using the NSQD" (draft monograph, 2005).

- Street sweeping;
- Catch basin cleaning;
- Catch basin inserts
- Trash bins;
- End-of-pipe controls such as low-flow diversions;
- Infiltration controls;
- Erosion controls; and
- Public education and outreach, including multi-lingual strategies.

Permittees summarized the most-used BMPs and most popular BMPs (according to the number of Permittees using a particular BMP) in their 2010-2011 Annual Report. An itemization of all BMPs installed and maintained during the 2010-11 reporting period is provided in Appendices B and C of the Permittees' Annual Report.

BMP Type	Total Number Installed
Catch Basin Connector Pipe Full Capture (CPS)	6377
Fossil Filter Catch Basin Insert	5968
Automatic Retractable Catch Basin	3870
Trash Screen (ARS)	
Clean Screen Catch Basin Insert	3767
Extra Trash Can	3681
Covered Trash Bin	3119
Signage and Stenciling	1884
Drain Pac Catch Basin Insert	1625
CulTec Infiltration Systems	1296
Infiltration Trenches	963
Infiltration Pit	958
Abtech Ultra Urban Catch Basin Insert	748
CDS Gross Pollutant Separator	438
United Storm Water Catch Basin	403
Scree Inserts	
Restaurants Vent Traps	258
Stormceptor Gross Pollutant	211
Separators	

Most installed BMPs County-wide During 2010-11

Most Used Proprietary and Non-Proprietary BMPs During 2010-11

Types of Nonproprietary BMPs Used By Most Permittees		Types Proprietary BMPs Used Most Permittees	
BMP Type	No. of Cities	BMP Type	No. of Cities
Infiltration	40	Fossil Filter	46
Trenches		Catch Basin	
		Inserts	
Covered Trash	32	CDS Gross	36



Bins		Pollutant	
		Separator	
Extra Trash	31	Drain Pac	21
Cans		Catch Basin	
		Insert	
Enhanced	26	Clean Screen	21
Street		Catch Basin	
Sweeping		Insert	
Dog Parks	23	Stormceptor	19
		Gross	
		Pollutant	
		Separator	

Some of the many advances in how to effectively control storm water and pollutants in storm water have occurred locally within the Los Angeles Region and include the development of cost effective trash full capture devices, storm water diversion, treatment and beneficial use facilities such as SMURRF and storm water capture, storage, and reuse facilities such as Sun Valley, low impact development/site design practices, and innovative/opportunistic culvert inlet multi-media filters. There are many other case studies of municipalities that have implemented innovative and effective storm water management measures (e.g., Portland, OR).

This Order is designed to reduce pollutant loading to waterbodies within Los Angeles County from discharges to and from the Los Angeles County MS4 through the implementation of multi-faceted storm water management programs at the municipal and watershed levels. Overall improvements in MS4 discharge quality are expected to occur over time with ongoing implementation of the Los Angeles County MS4 Permit. However, currently little information on the quality of storm water in the region and the water quality that can be achieved with the coordinated control of all MS4 discharges through full implementation of all storm water management measures by individual municipalities and collectively by all Permittees within a watershed is available. ThisOrder, however, is designed to effectively focus and broaden monitoring requirements with the addition of outfall monitoring and monitoring associated with the 33 TMDLs being incorporated, so pollutant loading from the MS4 can be better quantified and improvements in water quality resulting from implementation of storm water management measures can be tracked.

D. Economic considerations.

The Regional Water Board recognizes that Permittees will incur costs in implementing this Order above and beyond the costs from the Permittees' prior permit. Such costs will be incurred in complying with the post-construction, hydromodification, Low Impact Development, TMDL, and monitoring and reporting requirements of this Order. The Regional Water Board also recognizes that, due to California's current economic condition, many Permittees currently have limited staff and resources to implement actions to address its MS4 discharges. This Order allows Permittees the flexibility to address critical water quality priorities, namely discharges to waters subject to TMDLs, but aims to do so in a focused and cost-effective manner while maintaining the level of water quality protection

mandated by the Clean Water Act and other applicable requirements. For example, the inclusion of a watershed management program option allows Permittees to submit a plan for Regional Water Board Executive Officer approval that would allow for actions to be prioritized based on specific watershed needs. The cost of complying with TMDL wasteload allocations has been previously considered during the adoption of each TMDL.

It is very difficult to determine the true cost of implementing storm water and urban runoff management programs because of highly variable factors and unknown level of implementation among different municipalities and inconsistencies in reporting by Permittees. In addition, it is difficult to isolate program costs attributable to permit compliance. Reported costs of compliance for the same program element can vary widely from Permittee to Permittee, often by a very wide margin that is not easily explained. Despite these problems, efforts have been made to identify storm water and urban runoff management program costs, which can be helpful in understanding the costs of program implementation.

Economic considerations of implementing this Order were examined by primarily utilizing the data that are self-reported by the Permittees in their annual reports and a State Water Board funded study, which examined the costs of municipal MS4 programs statewide.⁷ The economic impact to public agencies was tabulated based on the reported costs of implementing the six minimum control measures (Public Information and Participation, Industrial/Commercial Facilities Control, Development Planning, Development Construction, Public Agency Activities, and Illicit Connections and Illicit Discharges Elimination) required by 40 CFR section 122.26(d)(2)(iv) as well as costs associated with program management, monitoring programs, and a category described as other. As noted above, Permittees report wide variability in the cost of compliance, which is not easily explained. Based on reported values, the average annual cost to the Permittees in 2010-11 was \$4,090,876 with a median cost of \$687,633. This translated to an average annual cost per household⁸ of \$120.04 with a median cost of \$57.31 per household.

It is important to note that reported program costs are not all solely attributable to compliance with requirements of the LA County MS4 Permit. Many program components, and their associated costs, existed before the first LA County MS4 Permit was issued in 1990. For example, storm drain maintenance, street sweeping and trash/litter collection costs are not solely or even principally attributable to MS4 permit compliance, since these practices have long been implemented by municipalities. Therefore, the true program cost related to complying with MS4 permit requirements is some fraction of the total reported costs. For example, after adjusting the total reported costs by subtracting out the costs for street sweeping and trash collection, the average annual cost to the Permittees was \$2,397,315 with a median cost of \$290,000. This translates to an average annual cost per household of \$42.57 (or \$3.55 per month) with a median annual cost of \$17.89 per household.

⁷ Data from the Los Angeles County Municipal Storm Water Permit (Order No. 01-182), Unified Annual Stormwater Report, 2010 – 2011, <u>http://ladpw.org/wmd/npdesrsa/annualreport/</u>

⁸ Data from the U.S. Census Bureau, 2010, <u>http://quickfacts.census.gov</u>.

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These results are consistent with the State Water Board funded study ("State Water Board Study") that surveyed the costs to develop, implement, maintain and monitor municipal separate storm sewer system management and control programs in 2004.⁹ The objectives of the study were to: 1) document stormwater program costs and 2) assess alternative approaches to MS4 guality control. The six cities selected for the study were judged by State Water Board staff as having good MS4 management programs, adequate accounting systems, and represented a variety of geographic locations, hydrologic areas, populations and incomes. The cities selected were Corona, Encinitas, Fremont, Fresno-Clovis Metropolitan Area, Sacramento and Santa Clarita. The results found that the annual total cost per household ranged from \$18 to \$46. The average cost was found to be \$35 and the median, \$36. The true mean, which is derived by dividing the total sample costs by the total sample number of households, is \$29 in 2002 dollars. This study was further examined and applied to the Ventura County MS4 Permit in "Economic Considerations of the Proposed (February 25, 2008) State of California Regional Water Quality Control Board Los Angeles Region, Order 08-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements for Stormwater (Wet Weather) and Non-Stormwater (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein," and found that when adjusted for inflation, the total annual cost to the MS4 Permittees ranged from \$7.15 to \$10.9 million, depending on the averaging method applied. This translated to an annual cost per household that ranged from \$27.60 to \$42.00 in 2008 dollars.

The State Water Board Study noted inherent limitations in the cost data quality. The most significant data quality limitation cited is that the costs provided by the municipalities were not sufficiently detailed or referenced to provide opportunity for independent review of the accuracy and completeness of the cost data. Similarly, the costs presented in the Los Angeles County Unified Annual Report ("Unified Annual Report") are not presented with supporting data or references so that they can be independently reviewed. Some of the limitations of the reported cost data are illustrated by a comparison of monitoring costs in different sections of the Unified Annual Report. In the monitoring costs section, the total costs for monitoring, including sample collection, analytical results, and sampling station maintenance was \$713,409 for 2010-2011. In contrast, the same report showed the monitoring costs of \$9,008,460 in the Unified Cost Table. Absent further explanation in the Unified Annual Report, this suggests that the reported costs may not be reliable.

The State Water Board Study also found that certain stormwater implementation costs included activities that provide separate and additional municipal benefits such as street sweeping and storm drain and channel cleaning. The State Water Board Study indicated that the inclusion of these costs as stormwater implementation costs is not uniform across different municipalities. In order to assess the variability of costs reported by different municipalities under the same permit and determine if Los Angeles County MS4 Permittees are reporting costs for activities that provide municipal benefits beyond storm water management and permit compliance, Regional Water Board staff reviewed costs reported by Los Angeles County MS4 Permittees in the Unified Annual Report. The reported storm

⁹ Currier, Brian K., Joseph M. Jones, Glenn L. Moeller. "NPDES Stormwater Cost Survey, Final Report", Prepared for California State Water Resources Control Board, California State University Sacramento, Office of Water Programs, January, 2005.

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water costs range from \$11.45 to \$928.10 per household per year. The average reported cost was \$120.04 per household per year and the median cost was \$57.31 per household per year. The wide spread of annual costs and the significant difference between the mean and median costs indicate that the LA County MS4 Permittees are not reporting costs in a uniform manner.

Staff also reviewed available cost data in the Unified Annual Report for Permittees that provided separate costs regarding street sweeping and trash collection. Staff adjusted the total costs so that the costs for these multi-benefit municipal programs were not included in the storm water cost and found that the adjusted storm water costs were greatly reduced by excluding these activities. These adjusted costs ranged from \$0.00 per household per year to \$903.10 per household per year. The mean adjusted rate is \$42.57 per household per year and the median adjusted rate is \$17.89 per household per year. Clearly, a significant portion (greater than 50%) of the costs attributed to storm water compliance activities also provide additional municipal benefits. (In the case of the Los Angeles County MS4 Permittees, some municipalities reported costs for trash collection; these costs were not reported by municipalities in the State Water Board Study.)

Finally, staff reviewed the cost breakdowns reported in the State Water Board Study and the Unified Annual Report for Los Angeles County MS4 Permittees. The following table summarizes the results:

Cost Category	State Water Board Study	Los Angeles County (2010-2011)
Watershed Management	6%	5%
Construction	11%	1%
Illicit Discharge	4%	2%
Industrial and Commercial	8%	1%
Overall Management	37%	5%
Pollution Prevention	2%	2%
Post Construction	3%	
Public Education	13%	2%
Monitoring	16%	3%
BMP Maintenance	Not Reported	2%
Development	Not Reported	1%
Other	Not reported	76%

The reported costs show differences between the MS4 Permittees surveyed in the State Water Board Study and the Los Angeles County MS4 Permittee costs in the following categories: construction, industrial and commercial activities, public education and monitoring. These categories all show greater proportional statewide cost allocations relative to the cost allocations by the Los Angeles County MS4 Permittees. The Los Angeles County MS4 Permittees report a cost category of BMP maintenance, which is not defined in the State Water Board Study. The management costs in the State Water Board Study were greater than the management costs reported by the Los Angeles County MS4 Permittees, but the Los Angeles County MS4 Permittees also reported a category of

"Other" that accounted for a large proportion of costs, which is not defined in the Unified Annual Report.

In addition to considering the costs of storm water management, it is important to consider the benefits of storm water and urban runoff management programs. A recent study conducted by USC/UCLA assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.¹⁰ Costs are anticipated to be borne over many years. As can be seen, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II storm water rule would also outweigh the costs.¹¹

Economic considerations of Not Regulating MS4 Discharges.

Economic discussions of storm water and urban runoff management programs tend to focus on costs incurred by municipalities in developing and implementing the programs. This is appropriate, and these costs are significant and a major issue for the Permittees. However, in adopting Order WQ 2000-11, the State Water Board further found that in considering the cost of compliance, it is also important to consider the costs of impairment; that is, the negative impact of pollution on the economy and the positive impact of improved water quality. For example, economic benefits may result through program implementation, and alternative costs (as well as environmental impacts) may be incurred by not fully implementing the program. So, while it is appropriate and necessary to consider the cost of compliance, it is also important to consider the alternative costs incurred by not fully implementing the programs, as well as the benefits which result from program implementation.

The benefits of implementation of the Los Angeles County MS4 Permit include improvements in water quality, enhancement of beneficial uses, and increased employment, income and satisfaction from environmental amenities. Most of the benefits of this permit can be identified and, in some cases, quantified in monetary terms. Others cannot be expressed in dollar terms and can only be described. For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by USEPA¹² to be \$158-210.62. This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study corroborates USEPA's estimates, reporting annual household willingness to pay for statewide clean water to be \$180.63.¹³ When viewed in comparison to household costs of existing urban runoff management programs, these household willingness to pay estimates exhibit that per household costs incurred by Permittees to implement their urban runoff management programs remain reasonable.

¹⁰ LARWQCB, 2004. Alternative Approaches to Stormwater Control.

¹¹ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791.

¹² Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793.

¹³ State Water Board, 2005. NPDES Stormwater Cost Survey. P. iv.

Not regulating discharges from the Los Angeles County MS4 will result in greater pollution of rivers, streams, lakes, reservoirs, bays, harbors, estuaries, groundwater, coastal shorelines and wetlands. Urban runoff in southern California has been found to cause illness in people bathing near storm drains.¹⁴ A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8% among bathers at those beaches resulted in about \$3 million annually in health-related expenses.¹⁵ In addition, poor beach water quality negatively affects tourism, which in turn reduces revenues to local businesses.

Funding Sources.

Public agencies (both federal and state) recognize the importance of storm water improvement projects and have provided significant sources of funding through grants, bonds, and fee collections to help offset the costs of storm water management in Los Angeles County. The table below summarizes the funds that have been allocated to storm water management in Los Angeles County, to date.

Source of Money	Dollars	% of total costs funded by State (only for those projects which included State funding)
Only State Board-awarded funding (Propositions 12, 13, 40, 50, and 84; and federal money, 319h, 205j, ARRA)	\$49,143,132	47%
Only State money from any State agency (propositions only, no federal); includes State Board, DWR, Coastal Conservancy, Fish & Game	\$67,461,699	58%
Total costs (approx.) for projects involving State money	\$114,703,731	N/A
Prop A	\$4,981,772	N/A
Prop O	\$508,678,258	N/A
Measure V	\$9,107,959	N/A
Total Public Funds (federal, State, local bonds and measures) expended on stormwater control projects	\$645,389,932	N/A (information not available for projects funded by local bonds and measures)

In addition to current funding options, future funding options continue to be created. Assembly Bill 2554, known as the Los Angeles County Flood Control District's Water

 ¹⁴ Haile, R.W., et al, 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.
 ¹⁵ Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment

¹⁵ Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick.

Quality Funding Initiative, is currently awaiting voter approval and would create an estimated annual revenue of \$300 million earmarked for:

- New and Existing Water Quality Projects and Programs
- Maintenance of Existing Facilities
- TMDL and MS4 Permit Implementation

Of the estimated annual revenue of \$300M, 40% of the money would be returned to the municipalities to create new local projects and programs and maintenance. Below are the estimated revenues that would be allocated to certain municipalities.

Municipalities	Estimated Annual Revenue
City of Los Angeles	\$37 million
City of Santa Monica	\$1 million
El Segundo	\$600,000
Manhattan Beach	\$300,000
Redondo Beach	\$750,000
Unincorporated Areas on Los	\$15 million
Angeles County	

Fifty percent of the \$300M would be spread across nine watershed authority groups (WAGs) to develop Water Quality Improvement Plans and implement regional projects and programs. Some examples of the possible annual revenues available to the WAGs are provided below:

WAG	Estimated Revenue
Santa Monica Bay	\$12 million
Upper Los Angeles River	\$36 million
Lower Los Angeles River	\$15 million
Upper San Gabriel River	\$17 million

The remaining 10% of annual revenues is allocated to the Los Angeles County Flood Control District for administration of the program and other district water quality projects and programs.

E. Need for developing housing within the region.

For over 100 years, this region has relied on imported water to meet many of our water resource needs. Imported water makes up approximately 70 to 75% of the Southern California region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining 25 to 30%.¹⁶ The area encompassed by this Order imports approximately 50% of its water supply. The Los Angeles County MS4 permit helps address the need for housing by controlling pollutants in MS4 discharges, which will improve the quality of water available for recycling and re-use. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development.

¹⁶ Southern California Association of Governments. The State of the Region 2007 Measuring Regional Progress (Housing, Environment). December 6, 2007. http://www.scag.ca.gov/publications/index.htm.

A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary.

In this Order, the Regional Water Board supports integrated water resources approaches. An integrated water resources approach manages water resources by integrating wastewater, stormwater, recycled water, and potable water planning through the capture and beneficial use of stormwater. An integrated approach can preserve local groundwater resources and reduce imported water needs. Thus, complying with this Order can positively affect the need for developing housing in the region. Furthermore, the low impact development (LID) requirements of this MS4 permit emphasize the necessity to balance growth with the protection of water quality. LID emphasizes cost effective, lot-level strategies that replicate the natural hydrology of the site and reduces the negative impacts of development. By avoiding the installation of more costly conventional storm water management strategies and harnessing runoff at the source, LID practices enhance the environment while providing cost savings to both developers and local governments.

F. Need to develop and use recycled water.

Storm water runoff that travels across the urban landscape quickly becomes contaminated with the wastes inherent from urban living. This polluted water is then discharged to the surface waters and eventually the ocean where it wreaks havoc on the natural coastal ecosystem and impacts human health. If the storm water is captured and treated (or captured prior to contamination) a new resource could be added to local water supplies. If this water is more effectively harnessed and recycled, numerous benefits could be achieved. These include:

- Regional reduction on imported water;
- Aid in the restoration of area aquifers;
- Reduction in the need for extensive public works projects; and
- Improvement in the quality of impaired water bodies.

The exact volume of storm water available for capture is dependent on the intensity and duration of storm events. Looking at land uses across the region and applying land use-specific runoff coefficients, the annual average runoff in the Los Angeles subarea is 450,000 acre-feet/year (with an average annual rainfall of 15.5 inches). The Los Angeles and San Gabriel Rivers Watershed Council estimates that, on average, about 550,000 acre-feet/year of runoff are discharged from Los Angeles area to the ocean.¹⁷

It is not possible to capture all MS4 discharges; however, a significant portion could be put to beneficial use. Potentially, in Los Angeles, "[i]f we could capture 80% of the rainfall that falls on just a quarter of the urban area-15% of the total watershed-we would be reducing total runoff by approximately 30%. That translates into a diversion of 43 billion gallons of water per year (132,000 acre-feet) or enough to supply 800,000 people for a year."¹⁸ That

¹⁷ <u>http://www.lasgrwc.org/WAS/WASflyer_web.pdf</u>

¹⁸ Los Angeles and San Gabriel River Watershed Council. 1999. *Stormwater: asset not liability.*

water capture would render a savings of almost sixty million dollars of imported State Water Project water. Capturing storm water from a larger portion of the watershed could increase the volume of this "new" water even further. Unlike traditional recycled water that requires the installation of dual plumbing and intensive infrastructure, much of the storm water capture could be done with minimal infrastructure retrofits in established communities.

Larger projects (and the corresponding savings) are also possible. The County of Los Angeles recharges storm water already. While the scale of these recharge activities is limited compared to the volume of water potentially available to recharge, the value of the process is significant. For example, in 2000 "County conservation efforts captured 220,000 acre-feet of local storm water runoff that was valued at \$80 million dollars."¹⁹

The unknown effects of infiltrating stormwater to recharge ground water have created some concern that such activities could introduce pollutants to the water supply. However, the U.S. Bureau of Reclamation has found²⁰:

"Based on the findings of the WAS research, decentralized stormwater management would provide a local and reliable supply of water that would not negatively impact groundwater quality. A decentralized approach could contribute up to 384,000 acre-feet of additional groundwater recharge annually if the first ³/₄" of each storm is infiltrated on all parcels, enough to provide water annually to approximately 1.5 million people. The value of this new water supply would be approximately \$311 million, using the MWD Tier 2 rate for 2010."

Recent studies in the Los Angeles area have also shown that in the process of infiltration through the soil, many contaminants are removed with no immediate impacts, and no apparent trends to indicate that storm water infiltration will negatively impact aroundwater.²¹. In areas with groundwater contamination issues, utilizing recycled storm water to recharge the aquifers may actually aid in the dilution of the buildup of salts. The value of this is hard to quantify but is an additional benefit. The use of recycled water can be accomplished in direct (such as irrigation projects or dual plumbing fixtures) or indirect (such as infiltration) ways. Both direct and indirect methods can be completed on a variety of different scales. To maximize the benefits available from using recycled water, the direct and indirect projects will need to be completed on household, neighborhood, watershed and regional scales. Currently there are a limited (but growing) number of projects in the region that can serve as examples of what may be accomplished through the development and implementation of recycled water projects. The Los Angeles County MS4 permit addresses the need for recycled water by controlling pollutants in storm water, which will result in water of improved quality with a greater potential for recycling or beneficial use. State law and policy advocates greatly expanding the use of recycled water to help meet local demand and reduce the volumes of water that are imported from other regions. Increased utilization of recycled water will require looking beyond the traditional reclaimed wastewater and will require utilizing storm water that is wasted by conveyance in the MS4

¹⁹ Los Angeles County Department of Regional Planning. 2008. 2008 Draft General Plan-

Planning Tomorrow's Great Places.

²⁰ Los Angeles and San Gabriel River Watershed Council. 2010. Water Augmentation Study: Research, Strategy, and Implementation Report.

²¹ Los Angeles and San Gabriel River Watershed Council. 2005. Los Angeles Basin Water Augmentation Study Phase II Final Report.

and dumping into the ocean. Storm water capture and use has not traditionally been included in the discussion of water recycling, but the process meets the definitional constraints and is bound by the same limitations and boundaries.

In addition, there are a number of Total Maximum Daily Loads (TMDLs) developed by the Regional Water Board that incorporate recycled water programs as potential implementation actions to meet TMDL requirements. These potential actions focus on both traditional water recycling and the newer storm water recycling approaches. Such recycled water programs could also reduce reliance on potable water supplies by expanding water recycling and aiding in the reclamation of poor quality, unconfined groundwater supplies. The capture, treatment and use of stormwater could augment these techniques as well. On-site capture of storm water helps prevent the water from being contaminated by urban by-products to begin with and the use of this high quality resource could reduce the unnecessary use of potable water for non-potable needs.

Some great examples of onsite capture are being demonstrated by TreePeople²² who have demonstration projects ranging from small scale rainwater harvesting at the single family home locations, to large scale watershed projects at Tuxedo Green in Sun Valley where the project redesigned the intersection with a flood control system that conveys most stormwater under, instead of into, the busy intersection. The water is stored in a 45,000-gallon cistern to be used for irrigating the landscaping at the new pocket park, which is planted with native and drought-tolerant species.

Another state of the art project was implemented by the City of Santa Monica called the Santa Monica Urban Runoff Recycling Facility (SMURFF).²³ The project harnesses the urban runoff (primarily during the dry season) and treats it for various pollutants to create a source of high quality water for reuse in landscape irrigation. Because the facility captures the dry weather runoff before it reaches the Santa Monica Bay it decreases a significant amount of pollutants from negatively impacting the Bay and associated beaches. The SMURFF is also open to the public and has several exhibits to raise public awareness of Santa Monica Bay pollution and the role of each individual in the watershed's health.

The County of Los Angeles Department of Public Works, Watershed Management Division has targeted the Sun Valley Watershed "...to solve the local flooding problem while retaining all storm water runoff from the watershed, increasing water conservation, recreational opportunities, wildlife habitat, and reducing stormwater pollution."²⁴ This aggressive plan involves several stakeholders and has implemented a variety of on-site BMPs as well as storm water infiltration retrofits and diversions.

XV. UNFUNDED MANDATES

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the

²² <u>www.treepeople.org</u>

²³http://c0133251.cdn.cloudfiles.rackspacecloud.com/Case%20Study%20-

^{%20}Santa%20Monica%20Urban%20Runoff%20Recycling%20Facility%20SMURFF.pdf

²⁴ http://www.sunvalleywatershed.org/watershed_management_plan/wmp-0ES.pdf

state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds for several reasons, including, but not limited to, the following.

First, the requirements of this Order do not constitute a new program or a higher level of service as compared to the requirements contained in the previous permit, Order No. 01-182 (as amended). The overarching requirement to impose controls to reduce the pollutants in discharges from MS4s is dictated by the Clean Water Act and is not new to this permit cycle. (33 U.S.C. §1342(p)(3)(B).) The inclusion of new and advanced measures as the MS4 programs evolve and mature over time is anticipated under the Clean Water Act (55 *Fed. Reg.* 47990, 48052 (Nov. 16, 1990)), and these new and advanced measures do not constitute a new program or higher level of service.

Second, and more broadly, mandates imposed by federal law, rather than by a state agency, are exempt from the requirement that the local agency's expenditures be reimbursed. (Cal. Const., art. XIII B, §9, subd. (b).) This Order implements federally mandated requirements under the Clean Water Act and its requirements are therefore not subject to subvention of funds. This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. (30 U.S.C. §1342(p)(3)(B).) Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (Natural Resources Defense Council, Inc. v. U.S. E.P.A. (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (cf. Burbank v. State Water Resources Control Bd. (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region (2006) 135 Cal.App.4th 1377, 1389; Building Industry Ass'n of San Diego County v. State Water Resources Control Bd. (2004) 124 Cal.App.4th 866, 882-883.)

The maximum extent practicable standard is a flexible standard that balances a number of considerations, including technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness. (*Building Ind. Asso., supra,* 124 Cal. App.4th at pp. 873, 874, 889.) Such considerations change over time with advances in technology and with experience gained in storm water management. (55 *Fed. Reg.* 47990, 48052 (Nov. 16, 1990).) Accordingly, a determination of whether the conditions contained in this Order exceed the requirements of federal law cannot be based on a point by point comparison of the permit conditions and the six minimum control measures that are required "at a minimum" to reduce pollutants to the maximum extent practicable and to protect water quality (40 CFR §122.34). Rather, the appropriate focus is whether the permit conditions, as a whole, exceed the maximum extent practicable standard. In recent months, the County of Los Angeles and County of Sacramento Superior Courts have granted writs setting aside decisions of the Commission on State Mandates that held that certain

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requirements in Phase I permits constituted unfunded mandates. In both cases, the courts found that the correct analysis in determining whether a MS4 permit constituted a state mandate was to evaluate whether the permit as a whole -- and not a specific permit provision -- exceeds the maximum extent practicable standard. (*State of Cal. v. Comm. On State Mandates* (Super. Ct. Sacramento County, 2012, No. 34-2010-80000604), *State of Cal. v. County of Los Angeles* (Super. Ct. Los Angeles County, 2011, No. BS130730.)

The requirements of the Order, taken as a whole rather than individually, are necessary to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The Regional Water Board finds that the requirements of the Order are practicable, do not exceed federal law, and thus do not constitute an unfunded mandate. These findings are the expert conclusions of the principal state agency charged with implementing the NPDES program in California. (Cal. Wat. Code, §§13001, 13370.)

It should also be noted that the provisions in this Order to effectively prohibit non-storm water discharges are also mandated by the Clean Water Act. (33 U.S.C. §1342(p)(3)(B)(ii).) Likewise, the provisions of this Order to implement total maximum daily loads (TMDLs) are federal mandates. The Clean Water Act requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. § 1313(d).) Once the USEPA or a state establishes or adopts a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions and requirements of any applicable waste load allocation in a TMDL. (40 CFR § 122.44(d)(1)(vii)(B).)

Third, the local agency Permittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) regulates the discharge of waste (Cal. Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and non-governmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Generally, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Resources Control Board decisions, certain provisions of this Order do not require strict compliance with water quality standards. (SWRCB Order No. WQ 2001-15, p. 7.) Those provisions of this Order regulate the discharge of waste in municipal storm water under the Clean Water Act MEP standard, not the BAT/BCT standard that applies to other types of discharges. These provisions, therefore, regulate the discharge of waste in

municipal storm water more leniently than the discharge of waste from non-governmental sources.

Fourth, the Permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)). To the extent that the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (Accord *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIIIB, Section (6) of the California Constitution.

Finally, even if any of the permit provisions could be considered unfunded mandates, under Government Code section 17556, subdivision (d), a state mandate is not subject to reimbursement if the local agency has the authority to charge a fee. The local agency Permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order subject to certain voting requirements contained in the California Constitution. (See California Constitution XIII D, section 6, subdivision (c); see also Howard Jarvis Taxpayers Association v. City of Salinas (2002) 98 Cal. App. 4th 1351, 1358-1359.). Additional fee authority has recently been established through amendments to the Los Angeles County Flood Control Act (Chapter 755 of the Statutes of 1915, as amended by Assembly Bill 2554 (2010)) to provide funding for municipalities, watershed authority groups, and the LACFCD to initiate, plan, design, construct, implement, operate, maintain, and sustain projects and services to improve surface water quality and reduce storm water and non-storm water pollution in the LACFCD, which will directly support Permittees' implementation of the requirements in this Order. The Fact Sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The authority and ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (Clovis Unified School Dist. v. Chiang (2010) 188 Cal. App.4th 794, 812, quoting Connell v. Superior court (1997) 59 Cal.App.4th 382, 401; County of Fresno v. State of California (1991) 53 Cal.3d 482, 487-488.)

XVI. PUBLIC PARTICIPATION

Regional Water Board staff held a kick-off meeting on May 25, 2011 to discuss the preliminary schedule for permit development; identify potential alternative permit structures; and outline some of the major technical and policy aspects of permit development. All LA County MS4 Permittees, as well as other known interested stakeholders, were invited to attend. Ninety-five individuals attended the meeting, representing most of the permittees as well as environmental organizations. After a presentation by Board staff, Permittees and interested persons had an initial opportunity to ask questions of staff, raise concerns, and provide feedback.

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At the May 25, 2011 kick-off meeting, Board staff requested input from the attendees on various permit structures. In order to solicit more focused input from permittees on alternative permit structures, and per suggestions at the kick-off meeting, Board staff developed and distributed an on-line survey to permittees using the on-line survey tool, SurveyMonkey®. The survey was distributed to all Los Angeles County MS4 Permittees on June 14, 2011 and responses were requested within two weeks. Fifty-two permittees responded using the on-line survey tool. The on-line survey sought input on several options for permit structure, including an individual permit for each municipality, a single permit for all permittees (i.e., the existing permit structure), and a single or multiple watershed-based permits.

Regional Water Board staff also held three topical workshops on December 15, 2011, January 23, 2012, and March 1, 2012. At the December 2011 workshop, staff discussed and invited feedback on: tentative permit requirements for the "minimum control measures" that comprise Permittees core storm water management program, approaches to addressing non-storm water MS4 discharges, and options for flexibility in permit requirements to address watershed priorities. At the January 2012 workshop, staff discussed and invited feedback on: tentative permit requirements to implement TMDL waste load allocations assigned to MS4 discharges and monitoring and reporting requirements for this Order. At the March 2012 workshop, staff discussed the use of water quality-based effluent limitations in this Order, discussed a revised proposal for monitoring requirements based on comments from the January 2012 workshop, and provided additional detail on proposed minimum control measure requirements.

Three Regional Water Board workshops were held during regularly scheduled Board meetings on November 10, 2011, April 5, 2012, and May 3, 2012. At the November 2011 Board workshop, staff discussed the objectives for the new permit, the status and schedule for permit development, alternatives for permit structure, provisions to implement TMDL WLAs, and provisions for minimum control measures, and identified preliminary considerations related to provisions for non-storm water discharges, receiving water limitations, water quality-based effluent limitations, and requirements for monitoring and reporting.

Prior to the April 5, 2012 Board workshop, staff released complete working proposals of the permit provisions related to two key parts of this Order: the storm water management program "minimum control measures" and the non-storm water MS4 discharge prohibitions on March 21, 2012 and March 28, 2012, respectively. Staff provided Permittees and interested persons the opportunity to submit written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the April 2012 Board workshop, staff presented the working proposals and the Board invited public comments. Detailed comments were made on both working proposals, and in particular, comments were made on how to address "essential" non-storm water discharges from potable water supplies and fire fighting activities in this Order.

Prior to the May 3, 2012 Board workshop, staff released complete working proposals of the permit provisions related to three other key parts of this Order: provisions for watershed management programs, TMDL-related requirements, and receiving water limitations language. Staff provided Permittees and interested persons the opportunity to submit

written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the May 2012 Board workshop, staff presented the three working proposals and the Board invited public comments. Staff answered extensive questions from Board members following public comments.

In addition to staff and Board workshops, Regional Water Board staff met regularly with Permittees, including the LA Permit Group (a coalition of 62 of the 86 Permittees covered by this Order), the Los Angeles County Flood Control District and the County of Los Angeles, the City of Los Angeles, and interested environmental organizations including Heal the Bay, Santa Monica Baykeeper, and the Natural Resources Defense Council (NRDC). Staff also met on several occasions with other affected agencies including large public water suppliers (Los Angeles Department of Water and Power and Metropolitan Water District), small community water suppliers, and local fire departments.

Finally, staff hosted several "joint" meetings to bring together key leaders among the Permittees and environmental organizations to discuss significant issues and work towards consensus on these issues where possible. The first two of these were held on May 17, 2012 and May 31, 2012, during which the group discussed permit requirements for USEPA established TMDLs. Staff prepared a working proposal based on the areas of agreement from the May 17th joint meeting, and distributed the proposal for review prior to the second meeting on May 31st. The proposal was discussed and refined at the second meeting. A third meeting is scheduled for June 14, 2012.

Prior to the Board's consideration of this Order, the Regional Water Board notified the Permittees and all interested agencies and persons of its intent to hold a hearing to issue an NPDES permit for discharges from the Los Angeles County MS4 and provided them with an opportunity to submit written comments over a 45-day period. The procedures followed for submission of written comments are described in the Notice of Hearing and Opportunity to Comment published for this Order. Notification was provided through the Regional Water Board's website, the Regional Water Board's e-mail subscription service, and the LA Times.

The Regional Water Board held a public hearing on the tentative Order during its regular Board meeting on September 6-7, 2012. Permittees and interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony and comments pertinent to the discharge and this Order. The hearing procedures followed by the Regional Water Board are described in the Notice of Hearing and Opportunity to Comment published for this Order.

ATTACHMENT G. NON-STORM WATER ACTION LEVELS AND MUNICIPAL ACTION LEVELS

I. SANTA CLARA RIVER WATERSHED AREA

Table G-1. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Chloride	mg/L	3	
Sulfate	mg/L	3	
Total Dissolved Solids	mg/L	3	
Methylene Blue Active Substances	mg/L	0.5^{4}	
Aluminum, Total Recoverable	mg/L	1.0 ⁴	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	5	5
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁴ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁵ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-2. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

	U		
Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Chloride	mg/L	5	
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Methylene Blue Active Substances	mg/L	0.5 ⁶	
Aluminum, Total Recoverable	mg/L	1.0 ⁶	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	7	7
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² E. Coli density in a single sample shall not exceed 235/100 ml.
 ³ Table and the single sample shall not exceed 235/100 ml.

³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

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- ⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁷ The applicable action level is the most stringent between corresponding Table H-1 and Table H-3 action levels.

Table G-3. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1, 2}	10,000 ^{2, 3}
Fecal Coliform Bacteria	#/100 ml	200 ¹	400 ³
Enterococcus Bacteria	#/100 ml	35 ¹	104 ³
Chloride	mg/L	4	
Sulfate	mg/L	4	
Total Dissolved Solids	mg/L	4	
Methylene Blue Active Substances	mg/L	0.5 ⁵	
Aluminum, Total Recoverable	mg/L	1.0 ⁵	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	58	117

¹ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁵ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

				<u></u>
Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	
Fecal Coliform Bacteria	#/100 ml		200 ²	400 ³
Enterococcus Bacteria	#/100 ml		35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

Table G-4. Action Levels for Discharges to Ocean Waters (Surf Zone)

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

- ² Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ³ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

II. LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Table G-5. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8	3.5 ¹
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Chloride	mg/L	4	
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁵	
Sulfate	mg/L	4	
Total Dissolved Solids	mg/L	4	
Turbidity	NTU	5^5	
Aluminum, Total Recoverable	mg/L	1.0 ⁵	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-6. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	6	
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁷	
Sulfate	mg/L	6	
Total Dissolved Solids	mg/L	6	
Turbidity	NTU	5 ⁷	
Aluminum, Total Recoverable	mg/L	1.0 ⁷	
Cyanide, Total Recoverable	µg/L	0.50	1.0

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Parameter	Units	Average Monthly	Daily Maximum
Copper, Total Recoverable	µg/L	8	8
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

² E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ E. Coli density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁷ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for

Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁸ The applicable action level is the most stringent between corresponding Table H-5 and Table H-7 action levels.

Table G-7.Action Levels for Discharges to Inland Surface Waters, EnclosedBays, and Estuaries (with receiving water salinity equal to or greater than10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Chloride	mg/L	5	
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁶	
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Turbidity	NTU	5 ⁶	
Aluminum, Total Recoverable	mg/L	1.0 ⁶	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁶ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	Standard units	6.0-9.0 ¹		
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		35 ³	104 ⁴
Turbidity	NTU	75	100	225
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

Table G-8. Action Levels for Discharges to Ocean Waters (Surf Zone)

¹ Within the range of 6.0 to 9.0 at all times.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

III. DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA

Table G-9. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-10. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	s.u	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³

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Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35^4	104 ⁵
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

¹ Within the range of 6.5 to 8.5 at all times.

E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁶ The applicable action level is the most stringent between corresponding Table H-9 and Table H-11 action levels.

Table G-11. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Baramatar	Unito	Average Menthly	Deily Meyimum
Parameter	Units	Average Monthly	Daily Maximum
рН	s.u	6.5-	
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117
Within the renera of C E to O E a	t all the sec		

Within the range of 6.5 to 8.5 at all times.

Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

Table G-12. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	s.u		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total	µg/L	3	12	30

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Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Recoverable				
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

¹ Within the range of 6.0 to 9.0 at all times.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

IV. BALLONA CREEK WATERSHED MANAGEMENT AREA

Table G-13. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-14. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-	8.5 ¹
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35^4	104 ⁵
Cyanide	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2

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- ¹ Within the range of 6.5 to 8.5 at all times.
- ² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.
- ³ *E. Coli* density in a single sample shall not exceed 235/100 ml.
- Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁶ The applicable action level is the most stringent between corresponding Table H-13 and Table H-15 action levels.

Table G-15. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-	8.5 ¹
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	58	117

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	Standard units		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

Table G-16. Action Levels for Discharges to Ocean Waters (Surf Zone)

Within the range of 6.0 to 9.0 at all times.

- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

V. MALIBU CREEK WATERSHED MANAGEMENT AREA NON-STORM WATER ACTION LEVELS

Table G-17. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum	
E. Coli Bacteria	#/100 ml	126 ¹	235 ²	
Sulfate	mg/L	3		
Total Dissolved Solids	mg/L	3		
Cyanide, Total Recoverable	µg/L	4.3	8.5	
Mercury, Total Recoverable	µg/L	0.051	0.10	
Selenium, Total Recoverable	µg/L	4.1	8.2	

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

Table G-18. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
Falameter	Units	Average Monthly	
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

Table G-19. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1, 2}	10,000 ^{2, 3}

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Units	Average Monthly	Daily Maximum
#/100 ml	200 ¹	400 ³
#/100 ml	35 ¹	104 ³
mg/L	4	
mg/L	4	
µg/L	0.50	1.0
µg/L	0.051	0.10
µg/L	58	117
	#/100 ml #/100 ml mg/L mg/L μg/L μg/L	#/100 ml 200 ¹ #/100 ml 35 ¹ mg/L 4 mg/L 4 µg/L 0.50 µg/L 0.051

Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

Table G-20. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	
Fecal Coliform Bacteria	#/100 ml		200 ²	400 ³
Enterococcus Bacteria	#/100 ml		35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

VI. SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

Table G-21. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.0-9.0 ¹	
E. Coli Bacteria	#/100 ml	126 ² 235 ³	
Chloride	mg/L	4	
Nitrate Nitrogen, Total (as N)	mg/L	4	
Sulfate	mg/L	4	
Total Dissolved Solids	mg/L	4	

Parameter	Units	Average Monthly	Daily Maximum
Aluminum, Total Recoverable	mg/L	1.0 ⁵	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Cadmium, Total Recoverable	µg/L	6	6
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	6	6
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	6	6
Zinc, Total Recoverable	µg/L	6	6

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-22. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.0-9.0 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	6	
Nitrate Nitrogen, Total (as N)	mg/L	6	
Sulfate	mg/L	6	
Total Dissolved Solids	mg/L	6	
Aluminum, Total Recoverable	mg/L	1.0 ⁷	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Cadmium, Total Recoverable	µg/L	8	8
Copper, Total Recoverable	µg/L	8	8
Lead, Total Recoverable	µg/L	8	8
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	8	8
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	8	8
Zinc, Total Recoverable	μg/L	8	8

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

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- ⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁷ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁸ The applicable action level is the most stringent between corresponding Table H-21 and Table H-23 action levels.

Table G-23. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum	
рН	Standard units		9.0 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{2, 4}	
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴	
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴	
Chloride	mg/L	5		
Nitrate Nitrogen, Total (as N)	mg/L	5		
Sulfate	mg/L	5		
Total Dissolved Solids	mg/L	5		
Aluminum, Total Recoverable	mg/L	1.0 ⁶		
Cyanide, Total Recoverable	µg/L	0.50	1.0	
Cadmium, Total Recoverable	μg/L	7.7	15	
Copper, Total Recoverable	µg/L	2.9	5.8	
Lead, Total Recoverable	µg/L	7.0	14	
Mercury, Total Recoverable	µg/L	0.051	0.10	
Nickel, Total Recoverable	µg/L	6.8	14	
Silver, Total Recoverable	µg/L	1.1	2.2	
Selenium, Total Recoverable	µg/L	58	117	
Zinc, Total Recoverable	µg/L	47	95	

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Table G-24. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	Standard units		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus	#/100 ml		35^{3}	104 ⁴

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Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Cyanide, Total Recoverable	µg/L	1	4	10
Cadmium, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Nickel, Total Recoverable	µg/L	5	20	50
Silver, Total Recoverable	µg/L	0.7	2.8	7.0
Selenium, Total Recoverable	µg/L	15	60	150
Zinc, Total Recoverable	µg/L	20	80	200

Within the range of 6.0 to 9.0 at all times.

Los Angeles County

2 In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

3 Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml. 4

Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

HARDNESS-BASED ACTION LEVELS FOR METALS VII.

			Cadmium, T	otal Reco	verable			
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	0.1	0.2	125.0	2.4	4.8	245.0	4.1	8.2
10.0	0.2	0.3	130.0	2.5	5.0	250.0	4.1	8.3
15.0	0.3	0.5	135.0	2.5	5.1	255.0	4.2	8.4
20.0	0.4	0.7	140.0	2.6	5.3	260.0	4.3	8.5
25.0	0.5	0.9	145.0	2.7	5.4	265.0	4.3	8.7
30.0	0.6	1.2	150.0	2.8	5.5	270.0	4.4	8.8
35.0	0.7	1.4	155.0	2.8	5.7	275.0	4.5	8.9
40.0	0.8	1.6	160.0	2.9	5.8	280.0	4.5	9.1
45.0	0.9	1.8	165.0	3.0	6.0	285.0	4.6	9.2
50.0	1.0	2.1	170.0	3.1	6.1	290.0	4.6	9.3
55.0	1.1	2.3	175.0	3.1	6.3	295.0	4.7	9.4
60.0	1.3	2.5	180.0	3.2	6.4	300.0	4.8	9.6
65.0	1.4	2.8	185.0	3.3	6.5	310.0	4.9	9.8
70.0	1.5	3.0	190.0	3.3	6.7	320.0	5.0	10.1
75.0	1.6	3.2	195.0	3.4	6.8	330.0	5.1	10.3
80.0	1.7	3.4	200.0	3.5	7.0	340.0	5.3	10.5
85.0	1.8	3.6	205.0	3.5	7.1	350.0	5.4	10.8

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	Cadmium, Total Recoverable											
Hardness (mg/L as CaCO ₃)	g/L as AMAL MDAL (mg/L as AMAL MDAL (mg/L as							MDAL (µg/L)				
90.0	1.9	3.7	210.0	3.6	7.2	360.0	5.5	11.0				
95.0	1.9	3.9	215.0	3.7	7.4	370.0	5.6	11.3				
100.0	2.0	4.0	220.0	3.7	7.5	380.0	5.7	11.5				
105.0	2.1	4.2	225.0	3.8	7.6	390.0	5.9	11.7				
110.0	2.2	4.3	230.0	3.9	7.8	400.0	6.0	12.0				
115.0	2.2	4.5	235.0	3.9	7.9	>400	6.0	12.0				
120.0	2.3	4.7	240.0	4.0	8.0							

			Copper, To	tal Recov	erable			
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	0.4	0.8	125.0	8.6	17.2	245.0	16.2	32.5
10.0	0.8	1.6	130.0	8.9	17.9	250.0	16.5	33.1
15.0	1.2	2.3	135.0	9.2	18.5	255.0	16.8	33.8
20.0	1.5	3.1	140.0	9.6	19.2	260.0	17.1	34.4
25.0	1.9	3.8	145.0	9.9	19.8	265.0	17.4	35.0
30.0	2.2	4.5	150.0	10.2	20.5	270.0	17.8	35.6
35.0	2.6	5.2	155.0	10.5	21.1	275.0	18.1	36.2
40.0	2.9	5.9	160.0	10.8	21.8	280.0	18.4	36.9
45.0	3.3	6.6	165.0	11.2	22.4	285.0	18.6	37.4
50.0	3.6	7.3	170.0	11.5	23.0	290.0	18.9	38.0
55.0	4.0	8.0	175.0	11.8	23.7	295.0	19.2	38.5
60.0	4.3	8.6	180.0	12.1	24.3	300.0	19.5	39.1
65.0	4.6	9.3	185.0	12.4	25.0	310.0	20.0	40.2
70.0	5.0	10.0	190.0	12.8	25.6	320.0	20.6	41.3
75.0	5.3	10.7	195.0	13.1	26.2	330.0	21.1	42.4
80.0	5.6	11.3	200.0	13.4	26.9	340.0	21.7	43.5
85.0	6.0	12.0	205.0	13.7	27.5	350.0	22.2	44.6
90.0	6.3	12.7	210.0	14.0	28.1	360.0	22.8	45.7
95.0	6.6	13.3	215.0	14.3	28.7	370.0	23.3	46.8
100.0	7.0	14.0	220.0	14.6	29.4	380.0	23.8	47.8
105.0	7.3	14.6	225.0	15.0	30.0	390.0	24.4	48.9
110.0	7.6	15.3	230.0	15.3	30.6	400.0	24.9	50.0
115.0	7.9	15.9	235.0	15.6	31.3	>400	24.9	50.0
120.0	8.3	16.6	240.0	15.9	31.9			

	Lead, Total Recoverable									
							MDAL (µg/L)			
5.0	0.1	0.1	125.0	3.5	6.9	245.0	8.1	16.3		
10.0	10.0 0.1 0.3 130.0 3.6 7.3 250.0 8.3 16.7									

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			Lead, Tota	al Recove	rable			
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
15.0	0.2	0.5	135.0	3.8	7.6	255.0	8.6	17.2
20.0	0.3	0.7	140.0	4.0	8.0	260.0	8.8	17.6
25.0	0.4	0.9	145.0	4.2	8.4	265.0	9.0	18.0
30.0	0.6	1.1	150.0	4.4	8.7	270.0	9.2	18.5
35.0	0.7	1.4	155.0	4.5	9.1	275.0	9.4	18.9
40.0	0.8	1.6	160.0	4.7	9.5	280.0	9.6	19.3
45.0	0.9	1.9	165.0	4.9	9.9	285.0	9.9	19.8
50.0	1.1	2.2	170.0	5.1	10.2	290.0	10.1	20.2
55.0	1.2	2.4	175.0	5.3	10.6	295.0	10.3	20.7
60.0	1.4	2.7	180.0	5.5	11.0	300.0	10.5	21.1
65.0	1.5	3.0	185.0	5.7	11.4	310.0	11.0	22.0
70.0	1.7	3.3	190.0	5.9	11.8	320.0	11.4	22.9
75.0	1.8	3.6	195.0	6.1	12.2	330.0	11.9	23.8
80.0	2.0	3.9	200.0	6.3	12.6	340.0	12.3	24.8
85.0	2.1	4.2	205.0	6.5	13.0	350.0	12.8	25.7
90.0	2.3	4.6	210.0	6.7	13.4	360.0	13.3	26.6
95.0	2.4	4.9	215.0	6.9	13.8	370.0	13.7	27.6
100.0	2.6	5.2	220.0	7.1	14.2	380.0	14.2	28.5
105.0	2.8	5.5	225.0	7.3	14.6	390.0	14.7	29.5
110.0	2.9	5.9	230.0	7.5	15.1	400.0	15.2	30.5
115.0	3.1	6.2	235.0	7.7	15.5	>400	15.2	30.5
120.0	3.3	6.6	240.0	7.9	15.9			

			Nickel, Tot	al Recove	erable			
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	3.4	6.8	125.0	51.5	103.3	245.0	90.9	182.5
10.0	6.1	12.2	130.0	53.2	106.7	250.0	92.5	185.6
15.0	8.6	17.2	135.0	54.9	110.2	255.0	94.1	188.7
20.0	10.9	21.9	140.0	56.6	113.6	260.0	95.6	191.9
25.0	13.2	26.5	145.0	58.3	117.1	265.0	97.2	195.0
30.0	15.4	30.9	150.0	60.0	120.5	270.0	98.7	198.1
35.0	17.5	35.2	155.0	61.7	123.9	275.0	100.3	201.2
40.0	19.6	39.4	160.0	63.4	127.2	280.0	101.8	204.3
45.0	21.7	43.5	165.0	65.1	130.6	285.0	103.3	207.4
50.0	23.7	47.6	170.0	66.8	133.9	290.0	104.9	210.4
55.0	25.7	51.6	175.0	68.4	137.3	295.0	106.4	213.5
60.0	27.7	55.5	180.0	70.1	140.6	300.0	107.9	216.6
65.0	29.6	59.4	185.0	71.7	143.9	310.0	111.0	222.7
70.0	31.5	63.2	190.0	73.3	147.1	320.0	114.0	228.7
75.0	33.4	67.0	195.0	75.0	150.4	330.0	117.0	234.7
80.0	35.3	70.8	200.0	76.6	153.7	340.0	120.0	240.7

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	Nickel, Total Recoverable											
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L) Hardness (mg/L as CaCO3) AMAL (µg/L) MDAL (µg/L) Hardness (mg/L as CaCO ₃)					AMAL (µg/L)	MDAL (µg/L)				
85.0	37.1	74.5	205.0	78.2	156.9	350.0	123.0	246.7				
90.0	39.0	78.2	210.0	79.8	160.2	360.0	125.9	252.7				
95.0	40.8	81.9	215.0	81.4	163.4	370.0	128.9	258.6				
100.0	42.6	85.5	220.0	83.0	166.6	380.0	131.8	264.5				
105.0	44.4	89.1	225.0	84.6	169.8	390.0	134.8	270.4				
110.0	46.2	92.7	230.0	86.2	173.0	400.0	137.7	276.2				
115.0	48.0	96.2	235.0	87.8	176.1	>400	137.7	276.2				
120.0	49.7	99.8	240.0	89.4	179.3							

			Zinc, Tota	I Recove	rable			
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	4.7	9.4	125.0	72.0	144.5	245.0	127.4	255.6
10.0	8.5	17.0	130.0	74.5	149.4	250.0	129.6	260.0
15.0	11.9	24.0	135.0	76.9	154.2	255.0	131.8	264.4
20.0	15.2	30.6	140.0	79.3	159.1	260.0	134.0	268.8
25.0	18.4	37.0	145.0	81.7	163.9	265.0	136.1	273.1
30.0	21.5	43.1	150.0	84.1	168.6	270.0	138.3	277.5
35.0	24.5	49.1	155.0	86.4	173.4	275.0	140.5	281.9
40.0	27.4	55.0	160.0	88.8	178.1	280.0	142.6	286.2
45.0	30.3	60.8	165.0	91.1	182.8	285.0	144.8	290.5
50.0	33.1	66.5	170.0	93.5	187.5	290.0	146.9	294.8
55.0	35.9	72.1	175.0	95.8	192.2	295.0	149.1	299.1
60.0	38.7	77.6	180.0	98.1	196.8	300.0	151.2	303.4
65.0	41.4	83.0	185.0	100.4	201.4	310.0	155.5	312.0
70.0	44.1	88.4	190.0	102.7	206.0	320.0	159.7	320.5
75.0	46.7	93.7	195.0	105.0	210.6	330.0	163.9	328.9
80.0	49.3	99.0	200.0	107.3	215.2	340.0	168.1	337.4
85.0	51.9	104.2	205.0	109.5	219.8	350.0	172.3	345.8
90.0	54.5	109.4	210.0	111.8	224.3	360.0	176.5	354.1
95.0	57.1	114.5	215.0	114.0	228.8	370.0	180.6	362.4
100.0	59.6	119.6	220.0	116.3	233.3	380.0	184.8	370.7
105.0	62.1	124.7	225.0	118.5	237.8	390.0	188.9	379.0
110.0	64.6	129.7	230.0	120.7	242.3	400.0	193.0	387.2
115.0	67.1	134.7	235.0	123.0	246.7	>400	193.0	387.2
120.0	69.6	139.6	240.0	125.2	251.2			

VIII. MUNICIPAL ACTION LEVELS

Conventional Pollutants

Attachment G - Non-Storm Water Action Levels

G-17

Ν

RB-AR3973

Pollutants	рН	TSS mg/L	COD mg/L	Kjedahl Nitrogen (TKN) mg/L	Nitrate & Nitrite- total mg/L	P- total mg/L
Municipal Action Level	6.0- 9.0	26.3	32	0.80	0.34	0.14

Metals

Pollutants	Cd- total	Cr-total	Cu- total	Pb- total	Ni- total	Zn- total	Hg- total
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Municipal Action Level	0.44	3.7	7	5	4.8	40	0.1

This Order establishes Municipal Action Levels (MALs) to identify subwatersheds requiring additional Best Management Practices (BMPs) to reduce pollutant loads and prioritize implementation of additional BMPs. MALs for selected pollutants are based on nationwide storm Phase MS4 monitorina data for pollutants in water (http://unix.eng.ua.edu/~rpitt/Research/Research.shtml, last visited on May 9, 2012). The MALs were obtained by computing the upper 25th percentile for selected pollutants.

Under this Order, the Municipal Action Levels (MALs) shall be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the MALs. Within those subwatersheds where pollutant levels in the discharge are in excess of the MALs. Permittees shall implement controls and measures necessary to reduce the discharge of pollutants.

In order to determine if MS4 discharges are in excess of the MALs, Permittees shall conduct outfall monitoring as required in the Monitoring and Reporting Program (MRP) (Attachment E). A MAL Assessment Report shall be submitted to the Regional Water Board Executive Officer as part of the Annual Report. The MAL Assessment Report shall present the monitoring data in comparison to the applicable MALs, and identify those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs listed in this attachment in discharges of storm water from the MS4.

Beginning in Year 3 after the effective date of this Order, each Permittee shall submit a MAL Action Plan with the Annual Report (first MAL Action Plan due with December 15, 2013 Annual Report) to the Regional Water Board Executive Officer, for those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in any discharge of storm water from the MS4. The plan shall include an assessment of the sources responsible for the MAL exceedances, the existing storm water programs and BMPs that address those sources, an assessment of potential program enhancements, alternative BMPs and actions the Permittee shall implement to reduce discharges to a level that is equivalent to or below the MALs, and an implementation schedule for such actions for Executive Officer approval. The

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MAL Action Plan shall provide the technical rationale to demonstrate the proposed measures and controls will attain the MALs. If the MAL Action Plan is not approved within 90 days of the due date, the Executive Officer may establish an appropriate plan with at least 90 day notification and consultation to the Permittees.

Within 90 days of the plan approval by the Regional Water Board Executive Officer, the Permittee shall initiate the BMPs and actions proposed in the MAL Action Plan, together with any other practicable BMPs or actions that the Executive Officer determines to be necessary to meet the MALs. The Permittee shall complete the proposed actions in accordance with the approved implementation schedule.

Upon completion of the actions specified in the approved MAL Action Plan, the Permittee shall re-monitor the subject subwatershed in accordance with the MRP, and submit a Post-Project MAL Assessment Report to the Regional Water Board Executive Officer.

As additional data become available through the MRP or from the Regional Subset of the National Dataset, MALs may be revised annually by the Regional Water Board Executive Officer in accordance with an equivalent statistical method as that used to establish the MALs in this attachment with at least 90 day notification and consultation to the Permittees.

ATTACHMENT H. BIORETENTION / BIOFILTRATION DESIGN CRITERIA

Note: A significant portion of the information in this appendix has been copied verbatim from the *Ventura County Technical Guidance Manual*, Updated 2011, and modified to reflect recent changes to the bioretention/biofiltration soil media specifications as adopted by the California Regional Water Quality Control Board, San Francisco Region, on November 28, 2011, Order No. R2-2011-083, Attachment L.

1. Geometry

- **a.** Bioretention/biofiltration areas shall be sized to capture and treat the design with an 18inch maximum ponding depth. *The intention is that the ponding depth be limited to a depth that will allow for a healthy vegetation layer.*
- **b.** Minimum planting soil depth should be 2 feet, although 3 feet is preferred. *The intention is that the minimum planting soil depth should provide a beneficial root zone for the chosen plant palette and adequate water storage for the SWQDv.*
- **c.** A gravel storage layer below the bioretention/biofiltraton soil media is required as necessary to provide adequate temporary storage to retain the SWQDv and to promote infiltration.

2. Drainage

- a. Bioretention and biofiltration BMPs should be designed to drain below the planting soil in less than 48 hours and completely drain in less than 96 hours. The intention is that soils must be allowed to dry out periodically in order to restore hydraulic capacity needed to receive flows from subsequent storms, maintain infiltration rates, maintain adequate soil oxygen levels for healthy soil biota and vegetation, and to provide proper soil conditions for biodegradation and retention of pollutants.
- **b.** Biofiltration BMPs are designed and constructed with an underdrain. The underdrain is preferably placed near the top of the gravel storage area to promote incidental infiltration and enhanced nitrogen removal. However, if in-situ, underlying soils do not provide sufficient drainage, the underdrain may need to be placed lower in the gravel storage area (within 6 inches of the bottom) to prevent the unit from holding stagnant water for extended periods of time. At many sites, clay soils will drain sufficiently fast, particularly if they are not compacted. Observing soil moisture and surface conditions in the days following a wet period may provide sufficient information for making this decision and may be more directly applicable than *in situ* or laboratory testing of soil characteristics. ¹

3. Overflow

An overflow device is required at the 18-inch ponding depth. The following, or equivalent, should be provided:

- a. A vertical PVC pipe (SDR 35) to act as an overflow riser.
- **b.** The overflow riser(s) should be 6 inches or greater in diameter, so it can be cleaned without damage to the pipe.

¹¹ Dan Cloak, Dan Cloak Environmental Consulting to Tom Dalziel, Contra Costa County, February 22, 2011. Attachment H – Bioretention/Biofiltration Design Criteria

The inlet to the riser should be at the ponding depth (18 inches for fenced bioretention areas and 6 inches for areas that are not fenced), and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued, i.e., not removable.

4. Integrated Water Quality/ Flow Reduction/Resources Management Criteria

- **a.** When calculating the capacity of an infiltration system, each Permittee shall account for the 24-hour infiltration assuming that the soil is saturated. Infiltration BMPs shall be limited to project sites where the in-situ soil or the amended on-site soils have a demonstrated infiltration rate under saturated conditions of no less than 0.15 inch per hour.
- **b.** Bioretention BMPs shall be designed to accommodate the minimum design flow at a surface loading rate of 5 inches per hour and no greater than 12 inches per hour, and shall have a total volume, including pore spaces and pre-filter detention volume of no less than the SWQDv.
- **c.** If rainwater harvested for use in irrigation is to be credited toward the total volume of storm water runoff retained on-site, each Permittee shall require the project proponent to conduct a conservative (assuming reasonable worst-case scenarios) assessment of water demand during the wet-weather season. This volume will be referred to as the "reliable" estimate of irrigation demand. The portion of water to be credited as retained on-site for use in irrigation shall not exceed the reliable estimate of irrigation demand.
- **d.** Harvested rainwater must be stored in a manner that precludes the breeding of mosquitoes or other vectors or with a draw down not to exceed 96 hours.
- e. When evaluating the potential for on-site retention, each Permittee shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.
- f. Project requirements shall address at a minimum the potential use of harvested rainwater for non-potable uses including toilet flushing, laundry, and cooling water makeup water. If the municipal, building or county health code(s) does not allow such use of harvested rainwater, each Permittee shall develop a model ordinance and submit it to the city council or County Supervisors for consideration within 24 months after the Order effective date. The model ordinances shall be based on the International Association of Plumbing and Mechanical Officials' (IAPMO's) Green Plumbing and Mechanical Code Supplement to the 2012 National Standard Plumbing Code, or similar guidance to ensure the safe and effective use of harvested rainwater, separate from the existing provisions, if any, for reclaimed wastewater.

5. Hydraulic Restriction Layers

Infiltration pathways may need to be restricted due to the close proximity of roads, foundations, or other infrastructure. A geomembrane liner, or other equivalent water proofing, may be placed along the vertical walls to reduce lateral flows. This liner should have a minimum thickness of 30 mils. Waterproof barriers may not be placed on the bottom of the biofiltration unit, as this would prevent incidental infiltration which is critical to meeting the required pollutant load reduction.

6. Planting/Storage Media Specifications

- **a.** The planting media placed in the cell should achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Higher infiltration rates of up to 12 inches per hour are permissible. Bioretention/biofiltration soil shall retain sufficient moisture to support vigorous plant growth.
- **b.** Planting media should consist of 60 to 80% fine sand and 20 to 40% compost.
- c. Sand should be free of wood, waste, coating such as clay, stone dust, carbonate, etc. or any other deleterious material. All aggregate passing the No. 200 sieve size should be non-plastic. Sand for bioretention should be analyzed by an accredited lab using #200, #100, #40, #30, #16, #8, #4, and 3/8 sieves (ASTM D 422 or as approved by the local permitting authority) and meet the following gradation (Note: all sands complying with ASTM C33 for fine aggregate comply with the gradation requirements provided in Table H-1):

	Percent Passing by V	Veight
Sieve Size ASTM D422	Minimum	Maximum
3 /8 inch	100	100
No. 4	90	100
No. 8	70	100
No. 16	40	95
No. 30	15	70
No. 40	5	55
No. 110	0	15
No. 200	0	5

Table H-1. Sand Texture Specifications

Note: The gradation of the sand component of the media is believed to be a major factor in the hydraulic conductivity of the media mix. If the desired hydraulic conductivity of the media cannot be achieved within the specified proportions of sand and compost (#2), then it may be necessary to utilize sand at the coarser end of the range specified in above ("minimum" column).

- d. Compost should be a well decomposed, stable, weed free organic matter source derived from waste materials including yard debris, wood wastes, or other organic materials not including manure or biosolids meeting standards developed by the US Composting Council (USCC). The product shall be certified through the USCC Seal of Testing Assurance (STA) Program (a compost testing and information disclosure program). Compost quality should be verified via a lab analysis to be:
 - Feedstock materials shall be specified and include one or more of the following: landscape/yard trimmings, grass clippings, food scraps, and agricultural crop residues.
 - Organic matter: 35-75% dry weight basis.
 - Carbon and Nitrogen Ratio: 15:1 < C:N < 25:1

- Maturity/Stability: shall have dark brown color and a soil-like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120 F) upon delivery or rewetting is not acceptable.
- Toxicity: any one of the following measures is sufficient to indicate non-toxicity:
 - NH4:NH3 < 3
 - Ammonium < 500 ppm, dry weight basis
 - Seed Germination > 80% of control
 - Plant trials > 80% of control
 - Solvita® > 5 index value
- Nutrient content:
 - Total Nitrogen content 0.9% or above preferred
 - Total Boron should be <80 ppm, soluble boron < 2.5 ppm
- Salinity: < 6.0 mmhos/cm
- pH between 6.5 and 8 (may vary with plant palette)
- Compost for bioretention should be analyzed by an accredited lab using #200, ¼ inch, ½ inch, and 1 inch sieves (ASTM D 422) and meet the gradation described in Table H-2:

	Percent Passing by	Percent Passing by Weight				
Sieve Size ASTM D422	Minimum	Maximum				
1 inch	99	100				
1/2 inch	90	100				
1/4 inch	40	90				
#200	2	10				

Table H-2. Compost Texture Specifications

Tests should be sufficiently recent to represent the actual material that is anticipated to be delivered to the site. If processes or sources used by the supplier have changed significantly since the most recent testing, new tests should be requested.

Note: the gradation of compost used in bioretention/biofiltratation media is believed to play an important role in the saturated hydraulic conductivity of the media. To achieve a higher saturated hydraulic conductivity, it may be necessary to utilize compost at the coarser end of this range ("minimum" column). The percent passing the #200 sieve (fines) is believed to be the most important factor in hydraulic conductivity.

In addition, a coarser compost mix provides more heterogeneity of the bioretention media, which is believed to be advantageous for more rapid development of soil structure needed to support health biological processes. This may be an advantage for plant establishment with lower nutrient and water input.

e. Bioretention/Biofiltration soils not meeting the above criteria shall be evaluated on a case by case basis. Alternative bioretention soil shall meet the following specification: "Soils for bioretention facilities shall be sufficiently permeable to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation." The following steps shall be followed by the Permittees to verify that alternative soil mixes meet the specification:

- Submittals The applicant must submit to the Permittee for approval:
 - A sample of mixed bioretention/biofiltration soil.
 - Certification from the soil supplier or an accredited laboratory that the bioretention/biofiltration soil meets the requirements of this specification.
 - Certification from an accredited geotechnical testing laboratory that the bioretention/biofiltration soil has an infiltration rate of between 5 and 12 inches per hour.
 - Organic content test results of mixed bioretention/biofiltration soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method".
 - Organic Grain size analysis results of mixed bioretention/biofiltration soil performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
 - A description of the equipment and methods used to mix the sand and compost to produce the bioretention/biofiltration soil.
- The name of the testing laboratory(s) and the following information:
 - Contact person(s)
 - Address(s)
 - Phone contact(s)
 - email address(s)
 - Qualifications of laboratory(s), and personnel including date of current
 - Certification by STA, ASTM, or approved equal.
- Bioretention/biofiltration soils shall be analyzed by an accredited lab using #200, and 1/2" inch sieves (ASTM D 422 or as approved by municipality), and meet the gradation described in Table H-3).

Table H-3. Alternative Bioretention/Biofiltration Soil Texture Specifications

	Percent Passing by Weight	
Sieve Size ASTM D422	Minimum	Maximum
1 ¹ / ₂ inch	97	100
200	2	5

- Bioretention/biofiltration soils shall be analyzed by an accredited geotechnical lab for the following tests:
 - Moisture density relationships (compaction tests) shall be conducted on bioretention soil. Bioretention/biofiltration soil for the permeability test shall be compacted to 85 to 90 percent of the maximum dry density (ASTM D1557).
 - Constant head permeability testing in accordance with ASTM D2434 shall be conducted on a minimum of two samples with a 6-inch mold and vacuum saturation.

7. Mulch for Bioretention/Biofiltration Facilities

Mulch is recommended for the purpose of retaining moisture, preventing erosion and minimizing weed growth. Projects subject to the State's Model Water Efficiency

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Landscaping Ordinance (or comparable local ordinance) will be required to provide at least two inches of mulch. Aged mulch, also called compost mulch, reduces the ability of weeds to establish, keeps soil moist, and replenishes soil nutrients. Aged mulch can be obtained through soil suppliers or directly from commercial recycling yards. It is recommended to apply 1" to 2" of composted mulch, once a year, preferably in June following weeding

8. Plants

- **a.** Plant materials should be tolerant of summer drought, ponding fluctuations, and saturated soil conditions for 48 to 96 hours.
- **b.** It is recommended that a minimum of three types of tree, shrubs, and/or herbaceous groundcover species be incorporated to protect against facility failure due to disease and insect infestations of a single species.
- **c.** Native plant species and/or hardy cultivars that are not invasive and do not require chemical inputs should be used to the maximum extent practicable.

References

California Regional Water Quality Control Board, San Francisco Bay Region. 2011. Municipal Regional Stormwater Permit (Order No. R2-2011-0083, Attachment L). Adopted November 28, 2011.

Dan Cloak, Dan Cloak Environmental Consulting to Tom Dalziel, Contra Costa County, February 22, 2011.< <u>http://www.cccleanwater.org/c3-guidebook.html</u>>. Accessed on January 31, 2012.

Geosyntec Consultants and Larry Walker Associates. 2011. Ventura County Technical Guidance Manual for Stormwater Quality Control Measures, Manual Update 2011. Appendix D. Prepared for the Ventura Countywide Stormwater Quality Management Program. July 13, 2011.

ATTACHMENT I. DEVELOPER TECHNICAL INFORMATION AND GUIDELINES

- **1.** Each Permittee shall make available to the Development Community reference information and recommended guidelines. Such information may include the following:
 - **a.** Hydromodification Control criteria described in this Order, including numerical criteria
 - b. Links to the State Water Board's Water Balance Calculator
 - c. Expected BMP pollutant removal performance including effluent quality (ASCE/ U.S. EPA International BMP Database, CASQA New Development BMP Handbook, technical reports, local data on BMP performance, and the scientific literature appropriate for southern California geography and climate)
 - d. Selection of appropriate BMPs for stormwater pollutants of concern
 - e. Data on observed local effectiveness and performance of implemented BMPs
 - f. BMP maintenance and cost considerations
 - **g.** Guiding principles to facilitate integrated water resources planning and management in the selection of BMPs, including water conservation, groundwater recharge, public recreation, multipurpose parks, open space preservation, and existing retrofits
 - **h.** LID principles and specifications, including the objectives and specifications for integration of LID strategies in the areas of:
 - i. Site Assessment
 - ii. Site Planning and Design
 - iii. Vegetative Protection, Revegetation, and Maintenance
 - iv. Techniques to Minimize Land Disturbance
 - v. Techniques to Implement LID Measures at Various Scales
 - vi. Integrated Water Resources Management Practices
 - vii. LID Design and Flow Modeling Guidance
 - viii. Hydrologic Analysis
 - ix. LID Credits for trees or other features that intercept storm water runoff.
 - i. Recommended Guidelines to include:
 - i. Locate structures on less pervious soils where possible so as to preserve areas with permeable soils (Hydrologic Soil Group Classes A and B, as defined by the National Cooperative Soil Survey), for use in stormwater infiltration and groundwater recharge. Minimize the need to grade the site by concentrating development in areas with minimal non-engineered slopes and existing infrastructure, and mitigate any construction disturbance.
 - ii. The total disturbed area shall be no greater than 110 percent of the final project footprint plus the area of the construction stormwater detention basins, if any, and as required to meet applicable Fire Department regulations for brush clearance.

- iii. Construction vehicles shall be confined at all times to the area specifically permitted to be disturbed by construction as depicted in the approved construction documents. Physical barriers shall be used to designate and protect the boundary between disturbed and undisturbed areas.
- iv. Materials staging shall be confined to the area permitted to be disturbed by construction or may be temporarily stored off-site at an approved location at the Contractor's option.
- v. Construction vehicles shall not traverse areas within the drip lines of those trees and other landscaping to be preserved. Approved visible physical barriers, such as continuous fencing, shall be provided to completely surround all trees and other landscaping to be preserved. Barriers shall be placed not less than 5 feet outside the drip lines of trees.
- vi. Preserve or restore continuous riparian buffers widths along all natural drainages to a minimum width of 100 feet from each bank top, for a total of 200 feet plus the width of the stream, unless the Watershed Plan demonstrates that a smaller riparian buffer width is protective of water quality, hydrology, and aquatic life beneficial uses within a specific drainage.
- vii. Identify and avoid development of areas containing habitat with threatened or endangered plant and animal species².
- Each Permittee shall facilitate implementation of LID by providing key industry, j. regulatory, and other stakeholders with information regarding LID objectives and specifications through a training program. The LID training program will include the following:
 - i. LID targeted sessions and materials for builders, design professionals, regulators, resource agencies, and stakeholders
 - ii. A combination of awareness on national efforts and local experience gained through LID pilot projects and demonstration projects
 - iii. Materials and data from LID pilot projects and demonstration projects including case studies
 - iv. Guidance on how to integrate LID requirements at various project scales
 - v. Guidance on the relationship among LID strategies, Source Control BMPs, Treatment Control BMPs, and Hydromodification Control requirements

Federal Endangered Species Act, 16 U.S.C. §§ 1531–1544 (http://water.epa.gov/lawsregs/guidance/wetlands/eo11990.cfm); California Endangered Species Act, California Fish and Game Code, §§ 2050 to 2115.5. Attachment I – Developer Technical Information and Guidelines

ATTACHMENT J. DETERMINATION OF EROSION POTENTIAL

 E_p is determined as follows- The *total effective work* done on the channel boundary is derived and used as a metric to predict the likelihood of channel adjustment given watershed and stream hydrologic and geomorphic variables. The index under urbanized conditions is compared to the index under preurban conditions expressed as a ratio (E_p). The effective work index (*W*) is computed as the excess shear stress that exceeds a critical value for streambed mobility or bank material erosion integrated over time and represents the total work done on the channel boundary:

$$W = \sum_{i=1}^{n} \left(\begin{array}{c} & & \\ & i & - \end{array} \right)^{1.5} \cdot V \cdot \Delta t_{i} \tag{1}$$

Where c = critical shear stress that initiates bed mobility or erodes the weakest bank layer, i = applied hydraulic shear stress, $\Delta t = duration of flows (in hours), and <math>n = length$ of flow record. The effective work index for presumed stable stream channels under pre-urban conditions is compared to stable and unstable channels under current urbanized conditions. The comparison, expressed as a ratio, is defined as the Erosion Potential (Ep)¹ (McRae 1992, 1996).

$$Ep = \frac{W_{post}}{W_{pre}} \tag{2}$$

where:

 W_{post} = work index estimated for the post-urban condition W_{pre} = work index estimated for the pre-urban condition

¹ MacRae, C.R. 1992. The Role of Moderate Flow Events and Bank Structure in the Determination of Channel Response to Urbanization. Resolving conflicts and uncertainty in water management: Proceedings of the 45th Annual Conference of the Canadian Water Resources Association. Shrubsole, D, ed. 1992, pg. 12.1-12.21; MacRae, C.R. 1996. Experience from Morphological Research on Canadian Streams: Is Control of the Two-Year Frequency Runoff Event the Best Basis for Stream Channel Protection. Effects of Watershed Development and Management on Aquatic Ecosystems, ASCE Engineering Foundation Conference, Snowbird, Utah, pg. 144-162

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ATTACHMENT K. PERMITTEES AND TMDLS MATRIX

Note: For all tables in this Attachment, Permittees listed in *italics* are Multi-Jurisdictional Permittees.

Table K-1: Santa Clara River Watershed Management Area TMDLs

SANTA CLARA RIVER			ACTIVE TMDLS	
WATERSHED MANAGEMENT AREA PERMITTEES	Santa Clara River Nitrogen Compounds TMDL	Upper Santa Clara River Chloride TMDL	Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL	Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL
Los Angeles (County of)	Х	Х	Х	X
Los Angeles County Flood Control	Х	Х	Х	Х
Santa Clarita	Х	Х		X

Table K-2: Santa Monica Bay Watershed Management Area TMDLs

			ACTIV	ETMDLS				
SANTA MONICA BAY				Malik	Malibu Creek Subwatershed			
WATERSHED MANAGEMENT AREA PERMITTEES	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)	Santa Monica Bay Nearshore and Offshore Debris TMDL	Santa Monica Bay TMDL for DDTs and PCBs	Malibu Creek and Lagoon Bacteria TMDL	Malibu Creek Watershed Trash TMDL	Malibu Creek Nutrient TMDL		
Agoura Hills	Х	Х	Х	Х	Х	Х		
Beverly Hills	Х	Х	Х					
Calabasas	Х	Х	Х	Х	Х	Х		
Culver City	Х	Х	Х					
El Segundo	Х	Х	Х					
Hermosa Beach	Х	Х	Х					
Hidden Hills	Х	Х	Х	Х	Х	Х		
Inglewood	Х	Х	Х					

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	ACTIVE TMDLS						
SANTA MONICA BAY				Malibu Creek Subwatershed			
WATERSHED MANAGEMENT AREA PERMITTEES	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)	Santa Monica Bay Nearshore and Offshore Debris TMDL	Santa Monica Bay TMDL for DDTs and PCBs	Malibu Creek and Lagoon Bacteria TMDL	Malibu Creek Watershed Trash TMDL	Malibu Creek Nutrient TMDL	
Los Angeles (City of)	Х	Х	Х				
Los Angeles (County of)	Х	х	Х	х	Х	х	
Los Angeles County Flood Control	Х	х	Х	х	Х	х	
Malibu	Х	Х	Х	Х	Х	Х	
Manhattan Beach	Х	Х	Х				
Palos Verdes Estates	Х	Х	Х				
Rancho Palos Verdes	Х	Х	Х				
Redondo Beach	Х	Х	Х				
Rolling Hills	Х	Х	Х				
Rolling Hills Estates	Х	Х	Х				
Santa Monica	Х	Х	Х				
Torrance	Х	Х	Х				
West Hollywood	Х	Х	Х				
Westlake Village	Х	Х	Х	Х	Х	Х	

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Table K-3: Santa Monica Bay Watershed Management Area TMDLs

				ACTIVE T	MDLS		
SANTA MONICA			Marina del Rey	Marina del Rey Subwatershed			
BAY WATERSHED MANAGEMENT AREA PERMITTEES	Ballona Creek Trash TMDL	Ballona Creek Estuary Toxic Pollutants TMDL	Ballona Creek, Ballona estuary and Sepulveda Channel Bacteria TMDL	Ballona Creek Metals TMDL	Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation	Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	Marina del Rey Harbor Toxic Pollutants TMDL
Agoura Hills							
Beverly Hills	Х	Х	Х	Х	Х		
Calabasas							
Culver City	Х	Х	Х	Х	Х	Х	Х
El Segundo							
Hermosa Beach							
Hidden Hills							
Inglewood	Х	Х	Х	Х	Х		
Los Angeles (City of)	х	x	Х	Х	X	Х	Х
Los Angeles (County of)	Х	X	Х	Х	Х	Х	Х
Los Angeles County Flood Control		x	Х	Х	x	х	х
Malibu							
Manhattan Beach							
Palos Verdes Estates							
Rancho Palos Verdes							
Redondo Beach							
Rolling Hills							

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	ACTIVE TMDLS							
SANTA MONICA			Ballona Creek Subwate	ershed		Marina del Rey	Subwatershed	
BAY WATERSHED MANAGEMENT AREA PERMITTEES	BallonaCreekBallona Creek,BallonaWetlandsCreekEstuaryBallona estuary andCreekSedimeTrashToxicSepulveda ChannelMetalsSedimeTMDIPollutantsBacteria TMDITMDITMDI				Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation	Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	Marina del Rey Harbor Toxic Pollutants TMDL	
Rolling Hills Estates								
Santa Monica	Х	Х	Х	Х	X			
Torrance								
West Hollywood	Х	Х	Х	Х	X			
Westlake Village								

Table K-4: Dominguez Channel Watershed Management Area TMDLs

	ACTIVE TMDLS							
DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles Harbor Bacteria TMDL	Machado Lake Trash TMDL	Machado Lake Nutrient TMDL	Machado Lake Pesticides and PCBs TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL			
Carson		Х	Х	Х	Х			
Compton					Х			
El Segundo					Х			
Gardena					Х			
Hawthorne					Х			
Inglewood					Х			
Lawndale					Х			
Lomita		Х	Х	Х				
Los Angeles (City of)	Х	Х	Х	Х	Х			
Los Angeles (County of)	Х	Х	Х	Х	Х			

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			ACTIVE TMDLS		
DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles Harbor Bacteria TMDL	Machado Lake Trash TMDL	Machado Lake Nutrient TMDL	Machado Lake Pesticides and PCBs TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL
Los Angeles County Flood Control		Х	Х	Х	Х
Manhattan Beach					Х
Palos Verdes Estates		Х	Х	Х	
Rancho Palos Verdes		Х	Х	Х	
Redondo Beach		Х	Х	Х	Х
Rolling Hills		Х	Х	Х	
Rolling Hills Estates		Х	Х	Х	
Torrance		Х	Х	Х	Х

Table K-5: Los Angeles River Watershed Management Area TMDLs

		ACTIVE TMDLS						
LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River Watershed Trash TMDL	Los Angeles River Nitrogen Compounds and Related Effects TMDL	Los Angeles River and Tributaries Metals TMDL	Los Angeles River Watershed Bacteria TMDL	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabasas, Echo Park Lake, and Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	י ר E
Alhambra	Х	Х	Х	Х				
Arcadia	Х	Х	Х	Х		Х		
Bell	Х	Х	Х	Х				
Bell Gardens	X	Х	Х	Х				
Bradbury	Х	Х	Х	Х		Х		
Burbank	Х	Х	Х	Х				
Calabasas	X	Х	Х	Х		Х		
Carson	X	Х	Х	Х				

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LOS ANGELES	ACTIVE TMDLS						
RIVER RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River Watershed Trash TMDL	Los Angeles River Nitrogen Compounds and Related Effects TMDL	Los Angeles River and Tributaries Metals TMDL	Los Angeles River Watershed Bacteria TMDL	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabasas, Echo Park Lake, and Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL
Commerce	Х	Х	Х	Х			
Compton	Х	Х	X	Х			Х
Cudahy	Х	Х	Х	Х			
Downey	Х	Х	Х	Х			
Duarte	Х	Х	Х	Х		X	
El Monte	Х	Х	Х	Х		X	
Glendale	Х	Х	Х	Х			
Hidden Hills	Х	Х	Х	Х			
Huntington Park	Х	Х	Х	Х			
Inglewood							
Irwindale	Х	Х	Х	Х		X	
La Canada Flintridge	x	Х	Х	Х			
Lakewood	Х	Х					Х
Los Angeles (City of)	Х	Х	Х	Х		х	Х
Los Angeles (County of)	x	х	Х	Х		X	Х
Los Angeles County Flood Control		х	Х	Х	Х	х	Х
Lynwood	Х	Х	Х	Х			
Maywood	Х	Х	Х	Х			
Monrovia	Х	Х	Х	Х		X	
Montebello	Х	Х	Х	Х			
Monterey Park	Х	Х	Х	Х			
Paramount	Х	Х	Х	Х			Х

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LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River Watershed Trash TMDL	Los Angeles River Nitrogen Compounds and Related Effects TMDL	Los Angeles River and Tributaries Metals TMDL	Los Angeles River Watershed Bacteria TMDL	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabasas, Echo Park Lake, and Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	-
Pasadena	Х	Х	Х	Х				-
Pico Rivera	Х	Х	Х	Х				
Rosemead	Х	Х	Х	Х				F
San Fernando	Х	Х	X	Х				
San Gabriel	Х	Х	X	Х				
San Marino	Х	Х	Х	Х]_
Santa Clarita	Х	Х	X	Х				
Sierra Madre	Х	Х	Х	Х		Х		
Signal Hill	Х	Х	Х	Х	Х		Х] <i> </i>
South El Monte	Х	Х	Х	Х				
South Gate	Х	Х	Х	Х				
South Pasadena	Х	Х	Х	Х				
Temple City	Х	Х	Х	Х]_'
Vernon	Х	Х	Х	Х]

Table K-6: San Gabriel River Watershed Management Area TMDLs

	ACTIVE TMDLS						
SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	Legg Lake Trash TMDL	Los Angeles Area Lakes TMDLs for Legg Lake, Puddingstone Reservoir, and Santa Fe Dam Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL			
Arcadia	Х						
Artesia	Х						

Attachment K – Permittees and TMDLs Matrix

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	ACTIVE TMDLS						
SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	Legg Lake Trash TMDL	Los Angeles Area Lakes TMDLs for Legg Lake, Puddingstone Reservoir, and Santa Fe Dam Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL			
Azusa	Х		Х				
Baldwin Park	Х						
Bellflower	Х			Х			
Bradbury	Х						
Cerritos	Х						
Claremont	Х		X				
Covina	Х						
Diamond Bar	Х						
Downey	Х						
Duarte	Х						
El Monte	Х	Х	X				
Glendora	Х						
Hawaiian Gardens	Х						
Industry	Х						
Irwindale	Х		X				
La Habra Heights	Х						
La Mirada	Х						
La Puente	Х						
La Verne	Х		X				
Lakewood	Х						
Los Angeles (County of)	Х	Х	Х	Х			
Los Angeles County Flood Control	Х	Х	Х	Х			
Monrovia							
Norwalk	Х						
Pico Rivera	Х						

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	ACTIVE TMDLS						
SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	Legg Lake Trash TMDL	Los Angeles Area Lakes TMDLs for Legg Lake, Puddingstone Reservoir, and Santa Fe Dam Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL			
Pomona	Х		X				
San Dimas	Х		X				
Santa Fe Springs	Х						
South El Monte	Х	Х	X				
Walnut	Х						
West Covina	Х						
Whittier	Х						

Table K-7: Los Cerritos Channel and Alamitos Bay Watershed Management Area TMDLs

	ACTIVE TMDLS						
LOS CERRITOS CHANNEL AND ALAMITOS BAY WATERSHED MANAGEMENT AREA PERMITTEES	Los Cerritos Channel Metals TMDL	Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL				
Bellflower	Х		Х				
Cerritos	Х						
Downey	Х						
Lakewood	Х						
Los Angeles (County of)	Х		Х				
Los Angeles County Flood Control	Х	Х	Х				
Paramount	Х						
Signal Hill	Х						

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Table K-8: Middle Santa Ana River Watershed Management Area TMDLs

	ACTIVE TMDL	
MIDDLE SANTA ANA RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Middle Santa Ana River Watershed Bacterial Indicator TMDL	
Claremont	Х	
Pomona	Х	

Table K-9: Los Angeles River Watershed Management Area Metals TMDLs by Reach

		Los Angeles	River and Tributaries	Metals TMDL	
LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Reach 1 and Compton Creek	Reach 2, Rio Hondo, Arroyo Seco, and all contributing subwatersheds	Reach 3, Verdugo Wash, and Burbank Western Channel	Reach 4, Reach 5, Tujunga Wash, and all contributing subwatersheds	Reach 6, Bell Creek, and all contributing subwatersheds
Alhambra		Х			
Arcadia		Х			
Bell		Х			
Bell Gardens		Х			
Bradbury		Х			
Burbank			Х	Х	
Calabasas					Х
Carson	Х				
Commerce		Х			
Compton	Х	Х			
Cudahy		Х			
Downey		Х			
Duarte		Х			
El Monte		Х			

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		Los Angeles	River and Tributaries	Metals TMDL	
LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Reach 1 and Compton Creek	Reach 2, Rio Hondo, Arroyo Seco, and all contributing subwatersheds	Reach 3, Verdugo Wash, and Burbank Western Channel	Reach 4, Reach 5, Tujunga Wash, and all contributing subwatersheds	Reach 6, Bell Creek, and all contributing subwatersheds
Glendale		Х	Х	Х	
Hidden Hills					Х
Huntington Park	Х	Х			
Inglewood					
Irwindale		Х			
La Canada Flintridge		Х	Х		
Lakewood					
Los Angeles (City of)	Х	Х	Х	Х	Х
Los Angeles (County of)	Х	Х	Х	Х	Х
Los Angeles County Flood Control	х	Х	x	Х	Х
Lynwood	Х	Х			
Maywood		Х			
Monrovia		Х			
Montebello		Х			
Monterey Park		Х			
Paramount		Х			
Pasadena		Х	Х		
Pico Rivera		Х			
Rosemead		Х			
San Fernando				Х	
San Gabriel		Х			
San Marino		Х			
Santa Clarita					
Sierra Madre		Х			
Signal Hill	Х				
South El Monte		Х			

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LOS ANGELES RIVER /ATERSHED MANAGEMENT AREA PERMITTEES	Reach 1 and Compton Creek	Los Angeles Reach 2, Rio Hondo, Arroyo Seco, and all contributing subwatersheds	River and Tributaries Reach 3, Verdugo Wash, and Burbank Western Channel	Metals TMDL Reach 4, Reach 5, Tujunga Wash, and all contributing subwatersheds	Reach 6, Bell Creek, and all contributing subwatersheds
South Gate	Х	Х			
South Pasadena		Х			
Temple City		Х			
Vernon		Х			

Table K-10: Los Angeles River Watershed Management Area Bacteria TMDL by Reach

LOS ANGELES								Los	Angeles	River Wate	rshed Bacte	ria TMDL				
RIVER		Los Angeles River Segment				Los Angeles River Tributary										
MANAGEMENT AREA PERMITTEES	A	в	с	D	Е	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
Alhambra		Х												Х		
Arcadia														Х		,
Bell		Х														
Bell Gardens		Х												Х		
Bradbury														Х		
Burbank			Х							Х						
Calabasas												Х	Х			
Carson											Х					
Commerce		Х												Х		
Compton	Х	Х									Х					
Cudahy		Х														
Downey		Х												Х		
Duarte														Х		

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LOS ANGELES						-		Los	Angeles	River Wate	rshed Bacte	ria TMDL				
RIVER				gele gme						Los A	ngeles Rive	r Tributary				
MANAGEMENT AREA PERMITTEES	A	в	с	D	Е	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
El Monte														Х		
Glendale		Х	Х				Х			Х					Х	Х
Hidden Hills								Х					Х			
Huntington Park		х									Х					
Inglewood																
Irwindale														Х		
La Canada Flintridge			х				Х									Х
Lakewood	Х															<i>F</i>
Los Angeles (City of)		х	х	х	Х	Х	Х	Х	Х	Х	Х	Х	Х		Х	x
Los Angeles (County of)	х	х	х		х	Х	Х	Х	х		х	Х	Х	Х	х	х
Los Angeles County Flood Control	х	х	х	х	х	х	Х	х	х	х	х	х	x	х	х	×
Lynwood	Х	Х									Х					
Maywood		Х														
Monrovia														Х		
Montebello		Х												Х		
Monterey Park		Х												Х		
Paramount	Х	Х														
Pasadena		Х	Х				Х							Х		Х
Pico Rivera														Х		
Rosemead														Х		
San Fernando															Х	
San Gabriel														Х		

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LOS ANGELES								Los Angeles River Watershed Bacteria TMDL									
RIVER				gele gme						Los A	ngeles Rive	r Tributary					
MANAGEMENT AREA PERMITTEES	A	в	с	D	Е	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash	
San Marino														Х			_
Santa Clarita									Х								
Sierra Madre														Х		l r	
Signal Hill	Х																_
South El Monte														Х		l N	
South Gate		Х									Х			Х		I	
South Pasadena		х					Х							х			ſ
Temple City														Х			Δ
Vernon		Х															1

Table K-11: Santa Monica Bay Watershed Management Area Bacteria TMDL by Reach

SANTA MONICA			Santa Mo	nica Bay Beac	hes Bacteria T	MDL (Wet and	Dry Weather)		N
BAY WATERSHED MANAGEMENT AREA PERMITTEES	Jurisdiction Group 1	Jurisdiction Group 2	Jurisdiction Group 3	Jurisdiction Group 4	Jurisdiction Group 5	Jurisdiction Group 6	Jurisdiction Group 7	Jurisdiction Group 8	Jurisdiction Group 9
Agoura Hills									Х
Beverly Hills								X	
Calabasas	Х								Х
Culver City								X	
El Segundo		Х			Х				
Hermosa Beach					Х	Х			
Hidden Hills									Х

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SANTA MONICA			Santa Mo	nica Bay Beac	hes Bacteria T	MDL (Wet and	Dry Weather)		
BAY WATERSHED MANAGEMENT AREA PERMITTEES	Jurisdiction Group 1	Jurisdiction Group 2	Jurisdiction Group 3	Jurisdiction Group 4	Jurisdiction Group 5	Jurisdiction Group 6	Jurisdiction Group 7	Jurisdiction Group 8	Jurisdiction Group 9
Inglewood								Х	
Los Angeles (City of)	х	х	Х				Х	x	-
Los Angeles (County of)	х	х		х	х	Х	Х	x	Х
Los Angeles County Flood Control	х	х	х	х	х	х	Х	x	×
Malibu	Х			Х					х -
Manhattan Beach					Х	Х			
Palos Verdes Estates							Х		
Rancho Palos Verdes							Х		-
Redondo Beach						Х			
Rolling Hills							Х		
Rolling Hills Estates							Х		
Santa Monica		Х	Х					Х	
Torrance						Х			
West Hollywood								Х	
Westlake Village									Х

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Table K-12: San Gabriel River Watershed Management Area Metals TMDLs by Reach

SAN GABRIEL RIVER WATERSHED	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL									
MANAGEMENT AREA PERMITTEES	Walnut Creek	San Jose Creek	Coyote Creek	San Gabriel River Reach 1	San Gabriel River Reach 2	San Gabriel River Reach 3	San Gabriel River Reach 4	San Gabriel River Reach 5		
Arcadia							Х			
Artesia			Х	X						
Azusa	Х							Х		
Baldwin Park	Х					Х	Х	L C		
Bellflower				Х				N		
Bradbury								ľ		
Cerritos			Х	Х						
Claremont	Х	Х								
Covina	Х							l h		
Diamond Bar		Х	Х					_		
Downey				Х	Х					
Duarte								Х		
El Monte						Х	Х			
Glendora	Х							X		
Hawaiian Gardens			Х							
Industry	Х	Х			Х	Х				
Irwindale	Х					Х	Х	Х		
La Habra Heights		Х	Х							
La Mirada			Х							
La Puente	Х	Х				Х				
La Verne	Х	Х								
Lakewood			Х	Х						
Los Angeles (County of)	Х	Х	Х		Х	Х		Х		
Los Angeles County Flood Control	Х	х	Х	Х	Х	Х	Х	Х		

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SAN GABRIEL RIVER			San Gabri	el River and Impa	aired Tributaries N	letals and Seleni	um TMDL	
WATERSHED MANAGEMENT AREA PERMITTEES	Walnut Creek	San Jose Creek	Coyote Creek	San Gabriel River Reach 1	San Gabriel River Reach 2	San Gabriel River Reach 3	San Gabriel River Reach 4	San Gabriel River Reach 5
Monrovia								
Norwalk			Х	X				
Pico <i>Rivera</i>					Х	Х		-
Pomona	Х	Х						
San Dimas	Х	Х						
Santa Fe Springs			Х	Х	Х			
South El Monte						Х		
Walnut	Х	Х						
West Covina	Х	Х						
Whittier		Х	Х		Х	Х		

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ATTACHMENT L. TMDLs IN THE SANTA CLARA RIVER WATERSHED MANAGEMENT AREA (WMA)

A. Santa Clara River Nitrogen Compounds TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
- 2. Permittees shall comply with the following water quality-based effluent limitations for discharges to the Santa Clara River Reach 5³ as of the effective date of this Order:

Constituent	Effluent Limitations (mg/L)				
Constituent	1-hour Average	30-day Average			
Total Ammonia as Nitrogen	5.2	1.75			
Nitrate as Nitrogen plus Nitrite as Nitrogen		6.8			

B. Upper Santa Clara River Chloride TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
- Permittees shall comply with the following water quality-based effluent limitation for discharges to the Santa Clara River Reaches 5 and 6 as of the effective date of this Order:

Constituent	Effluent Limitation Instantaneous Maximum (mg/L)
Chloride	100

C. Lake Elizabeth Trash TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
- 2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Lake Elizabeth no later than March 6, 2016 and every year thereafter.
- **3.** Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to Lake Elizabeth, per the schedule below:

	Effluent Limitation				
Deadline	Drainage Area covered by Full Capture Systems (%)	Annual Trash Discharge (gal/yr)			
Baseline	0	529			
March 6, 2012	20	423			
March 6, 2013	40	317			
March 6, 2014	60	212			
March 6, 2015	80	106			
March 6, 2016	100	0			

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in C.2 and C.3 above per the provisions in Part VI.E.5.

³ The Basin Plan Chapter 7-9 Santa Clara River Nitrogen Compounds TMDL uses the USEPA Santa Clara River reach designations. The USEPA's Santa Clara River Reach 7 corresponds to Santa Clara River Reach 5 in the Los Angeles Region's Basin Plan Chapter 2.

Attachment L –TMDLs in the Santa Clara River WMA

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D. Santa Clara River Indicator Bacteria TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
- Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Santa Clara River Reaches 5, 6 and 7 during dry weather no later than March 21, 2023 and during wet weather⁴ no later than March 21, 2029:

Constituent	Effluent Limita	tion (MPN or cfu)		
Constituent	Daily Maximum Geometric Mea			
E. coli	235/100 mL	126/100 mL		

- **3.** Receiving Water Limitations
 - **a.** Permittees shall comply with the following interim bacteria receiving water limitations⁵ for the Santa Clara River Reaches 5, 6, and 7:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	17	3	March 21, 2016
Wet Weather	61	9	March 21, 2016

b. Permittees shall comply with the following final bacteria receiving water limitations⁶ for the Santa Clara River Reaches 5, 6, and 7:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	5	1	March 21, 2023
Wet Weather	16	3	March 21, 2029

c. Permittees shall comply with the following geometric mean receiving water limitation for the Santa Clara River Reaches 5, 6, and 7 during dry weather no later than March 21, 2023 and during wet weather no later than March 21, 2029:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

 $[\]frac{4}{2}$ Wet weather is defined as days with 0.1 inch of rain or more and the three days following the rain event.

⁶ Ibid.

⁵ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each reach.

Attachment L –TMDLs in the Santa Clara River WMA

ATTACHMENT M. TMDLs IN THE SANTA MONICA BAY WATERSHED MANAGEMENT AREA

A. Santa Monica Bay Beaches Bacteria TMDL

- **1.** Permittees subject to the provisions below are identified in Attachment K, Table K-2.
- 2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Santa Monica Bay beaches during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)			
Constituent	Daily Maximum	Geometric Mean		
Total coliform*	10,000/100 mL	1,000/100 mL		
Fecal coliform	400/100 mL	200/100 mL		
Enterococcus	104/100 mL	35/100 mL		

 Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-tototal coliform exceeds 0.1.

- 3. Receiving Water Limitations
 - **a.** Permittees in each defined jurisdictional group shall comply with the interim single sample bacteria receiving water limitations for shoreline monitoring stations within their jurisdictional area during wet weather, per the schedule below:

Deadline	Cumulative percentage reduction from the total exceedance day reductions required for each jurisdictional group as identified in Table 1
July 15, 2013	25%
July 15, 2018	50%

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Table M-1: Interim S	Single Sample Bacteria	Receiving Water Limitation	ns by Jurisdictional Group
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Jurisdiction Primary Jurisdiction	Additional Responsible	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather			
Group	,	Jurisdictions & Agencies			10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
1	County of Los Angeles	Malibu	Arroyo Sequit	SMB 1-1	221	212	197
		City of Los Angeles	Carbon Canyon	SMB 1-13			
		(Topanga only)	Corral Canyon	SMB 1-11,			
		Calabasas (Topanga only)		SMB 1-12			
			Encinal Canyon	SMB 1-3			
			Escondido Canyon	SMB 1-8			
			Las Flores Canyon	SMB 1-14			
			Latigo Canyon	SMB 1-9			
			Los Alisos Canyon	SMB 1-2			
			Pena Canyon	SMB 1-16			
			Piedra Gorda Canyon	SMB 1-15			
			Ramirez Canyon	SMB 1-6, SMB 1-7			
			Solstice Canyon	SMB 1-10			
			Topanga Canyon	SMB 1-18			
			Trancas Canyon	SMB 1-4			
			Tuna Canyon	SMB 1-17			
			Zuma Canyon	SMB 1-5			
2	City of Los Angeles	County of Los Angeles	Castlerock	SMB 2-1	342	324	294
		El Segundo (DW only) Manhattan Beach (DW	Dockweiler	SMB 2-10, SMB 2- 11, SMB 2-12, SMB			
		only)		2-13, SMB 2-14,			
		Culver City (MDR only)		SMB 2-15			
		Santa Monica	Marina del Rey	SMB 2-8,			
				SMB 2-9			
			Pulga Canyon	SMB 2-4, SMB 2-5			

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Jurisdiction Primary Jurisdiction	Additional Responsible	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather			
Group		Jurisdictions & Agencies	Subwatershed(s)	Monitoring One(3)	10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
			Santa Monica Canyon	SMB 2-7			
			Santa Ynez Canyon	SMB 2-2, SMB 2-3, SMB 2-6			
3	Santa Monica	City of Los Angeles County of Los Angeles	Santa Monica	SMB 3-1, SMB 3-2, SMB 3-3, SMB 3-4, SMB 3-5, SMB 3-6 SMB 3-7, SMB 3-8 [#] SMB 3-9	257	237	203
4	Malibu	County of Los Angeles	Nicholas Canyon	SMB 4-1 [#]	14	14	14
5	Manhattan Beach	El Segundo Hermosa Beach Redondo Beach	Hermosa	SMB 5-1 [#] , SMB 5-2, SMB 5-3 [#] , SMB 5-4 [#] , SMB 5-5 [#]	29	29	29
6	Redondo Beach	Hermosa Beach Manhattan Beach Torrance County of Los Angeles	Redondo	SMB 6-1, SMB 6-2 [#] , SMB 6-3, SMB 6-4, SMB 6-5 [#] , SMB 6-6 [#]	58	57	56

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Jurisdiction	Primary Jurisdiction	Additional Responsible	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather		
Group		Jurisdictions & Agencies	outwatershed(s)		10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
7	Rancho Palos Verdes		Palos Verdes Peninsula	SMB 7-1 [#] , SMB 7-2 [#] , SMB 7-3 [#] , SMB 7-4 [#] , SMB 7-5 [#] , SMB 7-6 [#] , SMB 7-7, SMB 7-8 [#] , SMB 7-9 [#]	36	36	36

For those beach monitoring locations subject to the antidegradation provision, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year.

* The California Department of Transportation (Caltrans) is a responsible agency in each Jurisdiction Group and is jointly responsible for complying with the allowable number of exceedance days. Caltrans is separately regulated under the Statewide Storm Water Permit for State of California Department of Transportation (NPDES No. CAS000003).

b. Permittees shall comply with the following grouped⁷ final single sample bacteria receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches, except for those monitoring stations subject to the antidegradation implementation provision as established in the TMDL and identified in subpart c. below, during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		
	Daily Sampling	Weekly Sampling	
Summer Dry-Weather (April 1 to October 31)	0	0	
Winter Dry-Weather (November 1 to March 31)	3	1	
Wet Weather ⁸	17	3	

c. Permittees shall comply with the following grouped² final single sample bacteria N receiving water limitations for shoreline monitoring stations along Santa Monica Bay beaches subject to the antidegradation provision as of the effective date of this Order:

			al Allowable Single Samp		•
Station ID	Beach Monitoring Location	Winter Dry Weather (November 1 – March 31)		Wet Weather (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 1-4	Trancas Creek at Broad Beach	0	0	17	3
SMB 1-5	Zuma Creek at Zuma Beach	0	0	17	3
SMB 2-13	Imperial Highway storm drain	2	1	17	3
SMB 3-8	Windward Ave. storm drain at Venice Pavilion	2	1	13	2
SMB 4-1	San Nicholas Canyon Creek at Nicholas Beach	0	0	14	2
SMB 5-1	Manhattan Beach at 40th Street	1	1	4	1
SMB 5-2	28th Street storm drain at Manhattan Beach	0	0	17	3
SMB 5-3	Manhattan Beach Pier, southern drain	1	1	5	1

⁷ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each beach monitoring location.

⁸ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event. Attachment M –TMDLs in the Santa Monica Bay WMA

Annual Allowable Exceedance I of the Single Sample Objective (-		
Station ID Beach Monitoring Location		Winter Dry Weather (November 1 – March 31)		Wet Weather (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 5-4	Hermosa City Beach at 26th St.	3	1	12	2
SMB 5-5	Hermosa Beach Pier	2	1	8	2
SMB 6-2	Redondo Municipal Pier- 100 yards south	3	1	14	2
SMB 6-5	Avenue I storm drain at Redondo Beach	3	1	6	1
SMB 6-6	Malaga Cove, Palos Verdes Estates	1	1	3	1
SMB 7-1	Malaga Cove, Palos Verdes Estates	1	1	14	2
SMB 7-2	Bluff Cove, Palos Verdes Estates	1	1	0	0
SMB 7-3	Long Point, Rancho Palos Verdes	1	1	5	1
SMB 7-4	Abalone Cove, Rancho Palos Verdes	0	0	1	1
SMB 7-5	Portuguese Bend Cove, Rancho Palos Verdes	1	1	2	1
SMB 7-6	White's Point, Royal Palms County Beach	1	1	6	1
SMB 7-8	Point Fermin/Wilder Annex, San Pedro	1	1	2	1
SMB 7-9	Outer Cabrillo Beach	1	1	3	1

d. Permittees shall comply with the following geometric mean receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

B. Santa Monica Bay Nearshore and Offshore Debris TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-2.

- Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged into water bodies within the Santa Monica Bay WMA and then into Santa Monica Bay or on the shoreline of Santa Monica Bay no later than March 20, 2020⁹, and every year thereafter.
- **3.** Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged into Santa Monica Bay or on the shoreline of Santa Monica Bay, per the schedule below:

Permittees	Baseline ¹⁰	Mar 20, 2016 (80%)	Mar 20, 2017 (60%)	Mar 20, 2018 (40%)	Mar 20, 2019 (20%)	Mar 20, 2020 ¹¹ (0%)
			Annual	Frash Discharge	(gals/yr)	
Agoura Hills ¹²	1,044	835	626	418	209	0
Calabasas ¹⁰	1,656	1,325	994	663	331	0
Culver City	52	42	31	21	10	0
El Segundo	2,732	2,186	1,639	1,093	546	0
Hermosa Beach	1,117	894	670	447	223	0
Los Angeles, City of	25,112	20,090	15,067	10,045	5,022	0
Los Angeles, County of	5,138	4,110	3,083	2,055	1,028	0
Malibu	5,809	4,648	3,486	2,324	1,162	0
Manhattan Beach	2,501	2,001	1,501	1,001	500	0
Palos Verdes Estates	3,346	2,677	2,007	1,338	669	0
Rancho Palos Verdes	7,254	5,803	4,353	2,902	1,451	0
Redondo Beach	3,197	2,558	1,918	1,279	639	0
Rolling Hills	515	412	309	206	103	0
Rolling Hills Estates	365	292	219	146	73	0
Santa Monica	5,672	4,537	3,403	2,269	1,134	0
Torrance	2,484	1,987	1,490	993	497	0
Westlake Village ¹⁰	3,131	2,505	1,879	1,252	626	0

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.

C. Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-2.

⁹ If a Permittee by November 4, 2013, adopts local ordinances to ban plastic bags, smoking in public places and single use expanded polystyrene food packaging then the final compliance date will be extended until March 20, 2023.

¹⁰ If a Permittee elects not to use the default baseline, then the Permittee shall include a plan to establish a site specific trash baseline in their Trash Monitoring and Reporting Plan.

 ¹¹ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2019-2020 storm year and every year thereafter.
 ¹² Permittees shall be deemed in compliance with the water quality-based effluent limitation for trash established to implement

¹² Permittees shall be deemed in compliance with the water quality-based effluent limitation for trash established to implement the Santa Monica Bay Nearshore and Offshore Debris TMDL, if the Permittee is in compliance with the water quality-based effluent limitations established to implement the Malibu Creek Watershed Trash TMDL.

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 Permittees shall comply with the following WLAs, expressed as an annual loading of pollutants from the sediment discharged to Santa Monica Bay, per the provisions in Part IV.E.3:

Constituent	Annual Mass-Based WLA (g/yr)	
DDT	27.08	
PCBs	140.25	

3. Compliance shall be determined based on a three-year averaging period.

D. TMDLs in the Malibu Creek Subwatershed

- 1. Malibu Creek and Lagoon Bacteria TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-2.
 - **b.** Water Quality-Based Effluent Limitations
 - i. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)		
Constituent	Daily Maximum	Geometric Mean	
Total coliform*	10,000/100 mL	1,000/100 mL	
Fecal coliform	400/100 mL	200/100 mL	
Enterococcus	104/100 mL	35/100 mL	

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

ii. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Malibu Creek and its tributaries during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitatio	Effluent Limitation (MPN or cfu)		
oonstituent	Daily Maximum	Geometric Mean		
E. coli	235/100 mL	126/100 mL		

- c. Receiving Water Limitations
 - i. Permittees shall comply with the following grouped¹³ final single sample bacteria receiving water limitations for Malibu Creek, its tributaries, and

¹³ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area to the receiving water.

Attachment M – TMDLs in the Santa Monica Bay WMA

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Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		
	Daily Sampling	Weekly Sampling	
Summer Dry-Weather (April 1 to October 31)	0	0	
Winter Dry-Weather (November 1 to March 31)	3	1	
Wet Weather ¹⁴	17	3	

ii. Permittees shall comply with the following geometric mean receiving water limitations for discharges to Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

iii. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Malibu Creek and its tributaries during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

- 2. Malibu Creek Watershed Trash TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-2.
 - b. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Malibu Creek from Malibu Lagoon to Malibou Lake, Malibu Lagoon, Malibou Lake, Medea Creek, Lindero Creek, Lake Lindero, and Las Virgenes Creek in the Malibu Creek Watershed no later than July 7, 2017 and every year thereafter.
 - **c.** Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to the Malibu Creek, per the schedule below:

¹⁴ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event. Attachment M –TMDLs in the Santa Monica Bay WMA

	Baseline	July 7, 2013 (80%)	July 7, 2014 (60%)	July 7, 2015 (40%)	July 7, 2016 (20%)	July 7, 2017 (0%)
Permittees		A	nnual Trash Dis	scharge (gals/	yr)	
Agoura Hills	1810	1448	1086	724	362	0
Calabasas	673	539	404	269	135	0
Hidden Hills	71	57	43	28	14	0
Los Angeles County	1117	894	670	447	223	0
Malibu	226	181	136	91	45	0
Westlake Village	143	114	86	57	29	0

- **d.** Permittees shall comply with the interim and final water quality-based effluent N limitations for trash in D.2.b and D.2.c above per the provisions in Part VI.E.5.
- 3. Malibu Creek Watershed Nutrients TMDL (USEPA established)
 - a. Permittees subject to the provisions below are identified in Attachment K, A Table K-2.
 - b. Permittees shall comply with the following grouped¹⁵ WLAs per the provisions in Part IV.E.3 for discharges to Westlake Lake, Lake Lindero, Lindero Creek, Las Virgenes Creek, Medea Creek, Malibou Lake, Malibu Creek and Malibu Lagoon and its tributaries. Tributaries to Malibu Creek and Lagoon, include the following upstream water bodies; Triunfo Creek, Palo Comado Creek, Cheesebro Creek, Strokes Creek and Cold Creek.

	WLA		
Time Period	Nitrate as Nitrogen plus Nitrite as Nitrogen	Total Phosphorus	
	Daily Maximum	Daily Maximum	
Summer (April 15 to November 15) ¹⁶	8 lbs/day	0.8 lbs/day	
Winter (November 16 to April 14)	8 mg/L	n/a	

E. TMDLs in the Ballona Creek Subwatershed

1. Ballona Creek Trash TMDL

¹⁵ USEPA was unable to specifically distinguish the amounts of pollutant loads from allocation categories associated with areas regulated by the storm water permits. Therefore, allocations for storm water permits are grouped.

¹⁶ The mass-based summer WLAs are calculated as the sum of the allocations for "runoff from developed areas" and "dry weather urban runoff."

Attachment M -TMDLs in the Santa Monica Bay WMA

- **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- **b.** Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Ballona Creek no later than September 30, 2015 and every year thereafter.
- **c.** Permittees shall comply with the interim and final water quality-based effluent limitations for trash discharged to Ballona Creek, per the schedule below:

Ballona Creek Subwatershed Trash Effluent Limitations per Storm Year¹⁷ (pounds of drip-dry trash)

	Baseline	Sept 30, 2012 (20%)	Sept 30, 2013 (10%)	Sept 30, 2014 (3.3%)	Sept 30, 2015 ¹⁸ (0%)
Permittees		Annu	al Trash Discha	irge (pounds of t	rash)
Beverly Hills	70,712	14,142	7,071	2,333	0
Culver City	37,271	7,454	3,727	1,230	0
Inglewood	22,324	4,465	2,232	737	0
Los Angeles, City of	942,720	188,544	94,272	31,110	0
Los Angeles, County of	52,693	10,539	5,269	1,739	0
Santa Monica	2,579	516	258	85	0
West Hollywood	13,411	2,682	1,341	443	0

Ballona Creek Subwatershed Trash Effluent Limitations per Storm Year (gallons of uncompressed trash)

	Baseline	Sept 30, 2012 (20%)	Sept 30, 2013 (10%)	Sept 30, 2014 (3.3%)	Sept 30, 2015 ¹⁶ (0%)
Permittees		Annual Tras	h Discharge (gal	lons of uncompr	essed trash)
Beverly Hills	45,336	9,067	4,534	1,496	0
Culver City	25,081	5,016	2,508	828	0
Inglewood	14,717	2,943	1,472	486	0
Los Angeles, City of	602,068	120,414	60,207	19,868	0
Los Angeles, County of	32,679	6,536	3,268	1,078	0
Santa Monica	1,749	350	175	58	0
West Hollywood	9,360	1,872	936	309	0

¹⁷ For purposes of the provisions in this subpart, a storm year is defined as October 1 to September 30.

¹⁸ Permittees shall achieve their final water quality-based effluent limitation of zero trash discharged for the 2014-2015 storm year and every year thereafter.

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- d. Seventy-two (72) hours after each rain event, Permittees shall clean out and measure trash retained.
- e. Every 3 months during dry weather, Permittees shall clean out and measure trash retained.
- **f.** Permittees shall comply with the interim and final water quality-based effluent limitations for trash in E.1.b and E.1.c above per the provisions in Part VI.E.5.
- 2. Ballona Creek Estuary Toxic Pollutants TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-3.
 - b. Permittees shall comply with the following final water quality-based effluent limitations no later than January 11, 2021, expressed as an annual loading of sediment-bound pollutants deposited to Ballona Creek Estuary:

Constituent	Effluent Limitations		
Constituent	Annual	Units	
Cadmium	8.0	kg/yr	
Copper	227.3	kg/yr	
Lead	312.3	kg/yr	
Silver	6.69	kg/yr	
Zinc	1003	kg/yr	
Chlordane	3.34	g/yr	
DDTs	10.56	g/yr	
Total PCBs	152	g/yr	
Total PAHs	26,900	g/yr	

c. Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound pollutant loads deposited to Ballona Creek Estuary, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)
January 11, 2013	25
January 11, 2015	50
January 11, 2017	75
January 11, 2021	100

d. Permittees shall be deemed in compliance with the water quality-based effluent limitations in Part E.2.b by demonstrating any one of the following:

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- i. Final water quality-based effluent limitations for sediment-bound pollutants deposited to Ballona Creek Estuary are met; or
- ii. The sediment numeric targets as defined in the TMDL are met in bed sediments; or
- **iii.** Concentrations of sediments discharged meet the numeric targets for sediment as defined in the TMDL.
- 3. Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-3.
 - **b.** Water Quality-Based Effluent Limitations
 - Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; and Centinela Creek at the confluence with Ballona Creek Estuary during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)		
Constituent	Daily Maximum	Geometric Mean	
Total coliform*	10,000/100 mL	1,000/100 mL	
Fecal coliform	400/100 mL	200/100 mL	
Enterococcus	104/100 mL	35/100 mL	

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

ii. Permittees shall comply with the following final water quality-based effluent V limitations for discharges to Sepulveda Channel during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)		
oonstituent	Daily Maximum	Geometric Mean	
E. coli	235/100 mL	126/100 mL	

iii. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Ballona Creek Reach 2; and Benedict Canyon Channel at the confluence with Ballona Creek Reach 2 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)		
oonstituent	Daily Maximum	Geometric Mean	
E. coli	576/100 mL	126/100 mL	

iv. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Reach 1 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)		
oonstituent	Daily Maximum	Geometric Mean	
Fecal coliform	4000/100 mL	2000/100 mL	

- c. Receiving Water Limitations
 - i. Permittees shall comply with the following grouped¹⁹ single sample bacteria receiving water limitations for Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; Centinela Creek at the confluence with Ballona Creek Estuary; Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective		Deadline	
	Daily Sampling	Weekly Sampling		
Summer Dry-Weather (April 1 to October 31)	0	0	April 27, 2013	
Winter Dry-Weather (November 1 to March 31)	3	1	April 27, 2013	
Wet Weather ²⁰	17*	3	July 15, 2021	

* In Ballona Creek Reach 2 and at the confluence with Reach 2, the greater of the allowable exceedance days under the reference system approach or high flow suspension shall apply.

- **ii.** Permittees shall not exceed the single sample bacteria objective of 4000/100 ml in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period. Permittees shall achieve compliance with this receiving water limitation during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021.
- iii. Permittees shall comply with the following geometric mean receiving water limitations for discharges to Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; and Centinela Creek at the confluence with Ballona Creek Estuary during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

iv. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Ballona Creek Reach 2; Benedict Canyon Channel at the

¹⁹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

²⁰ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event. Attachment M –TMDLs in the Santa Monica Bay WMA

confluence with Ballona Creek Reach 2; and Sepulveda Channel during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

v. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 1 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Fecal coliform	2000/100 mL

- 4. Ballona Creek Metals TMDL
 - a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
 - b. Final Water Quality-Based Effluent Limitations
 - i. Permittees shall comply with the following dry weather²¹ water quality-based effluent limitations no later than January 11, 2016, expressed as total recoverable metals discharged to Ballona Creek and Sepulveda Channel:

Constituent	Effluent Limitation Daily Maximum (g/day)	
	Ballona Creek	Sepulveda Channel
Copper	807.7	365.6
Lead	432.6	196.1
Selenium	169	76
Zinc	10,273.1	4,646.4

ii. In lieu of calculating loads, Permittees may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather²² no later than January 11, 2016, expressed as total recoverable metals discharged to Ballona Creek and Sepulveda Channel:

Constituent	Effluent Limitation Daily Maximum (µg/L)
Copper	24

²¹ Dry weather is defined as any day when the maximum daily flow in Ballona Creek is less than 40 cubic feet per second (cfs) measured at Sawtelle Avenue.²² Ibid.

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Lead	13
Selenium	5
Zinc	304

iii. Permittees shall comply with the following wet weather²³ water quality-based effluent limitations no later than January 11, 2021, expressed as total recoverable metals discharged to Ballona Creek and its tributaries:

Constituent	Effluent Limitation Daily Maximum (g/day)
Copper	$1.70 \times 10^{-5} x$ daily storm volume (L)
Lead	5.58 x 10^{-5} x daily storm volume (L)
Selenium	$4.73 \times 10^{-6} x$ daily storm volume (L)
Zinc	$1.13 \times 10^{-4} x$ daily storm volume (L)

c. Permittees shall comply with interim and final water quality-based effluent limitations for metals discharged to Ballona Creek and its tributaries, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)		
	Dry weather	Wet weather	
January 11, 2012	50	25	
January 11, 2014	75		
January 11, 2016	100	50	
January 11, 2021	100	100	

- 5. Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-3.
 - **b.** Permittees shall comply with the following grouped²⁴ WLA per the provisions in Part VI.E.3 for discharges of sediment into Ballona Creek Wetlands:

Constituent	Annual WLA ²⁵ (m³/yr)	
Total Sediment (suspended sediment plus sediment bed	44,615	

²³ Wet weather is defined as any day when the maximum daily flow in Ballona Creek is equal to or greater than 40 cubic feet per second (cfs) measured at Sawtelle Avenue.
²⁴ The WLA is group based and shared areas at the second areas at the second second second second at Sawtelle Avenue.

²⁵ The WLA is applied as a 3-year average.

²⁴ The WLA is group-based and shared among all MS4 Permittees located within the drainage area.

Attachment M – TMDLs in the Santa Monica Bay WMA

load)

F. TMDLs in Marina del Rey Subwatershed

- Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL
 - a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
 - **b.** Permittees shall comply with the following final water quality-based effluent limitations for discharges to Marina del Rey Harbor Beach and Back Basins D, E, and F during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitatio	Effluent Limitations (MPN or cfu)	
Constituent	Daily Maximum Geometric Mean		
Total coliform*	10,000/100 mL	1,000/100 mL	
Fecal coliform	400/100 mL	200/100 mL	
Enterococcus	104/100 mL	35/100 mL	

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

c. Receiving Water Limitations

i. Permittees shall comply with the following grouped²⁶ final single sample bacteria receiving water limitations for all monitoring stations at Marina Beach and Basins D, E, and F, except for those monitoring stations subject to the antidegradation provisions, during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021.

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		
	Daily Sampling	Weekly Sampling	
Summer Dry-Weather (April 1 to October 31)	0	0	
Winter Dry-Weather (November 1 to March 31)	3	1	
Wet Weather ²⁷	17	3	

ii. Permittees shall comply with the following grouped²⁸ final single sample bacteria receiving water limitations for monitoring stations in Marina del Rev subject to the antidegradation provision as of the effective date of this Order:

Annual Allowable Exceedance D of the Single Sample Objective (o
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²⁶ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

²⁸ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

Attachment M –TMDLs in the Santa Monica Bay WMA



Station	Monitoring	Winter Dry Weather (November 1 – March 31)		Wet Weather (November 1 – October 31)	
ID	Monitoring Location	Daily Sampling	Weekly Samplin g	Daily Sampling	Weekly Sampling
MdRH-9	Basin F, center of basin	3	1	8	1

iii. Permittees shall comply with the following geometric mean receiving water limitations for monitoring stations at Marina Beach and Basins D, E, and F during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)	
Total coliform	1,000/100 mL	
Fecal coliform	200/100 mL	
Enterococcus	35/100 mL	

- 2. Marina del Rey Harbor Toxic Pollutants TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, ${\sf A}$ Table K-3.
 - b. Permittees shall comply with the following final water quality-based effluent limitations no later than March 22, 2016²⁹, expressed as an annual loading of pollutants associated with total suspended solids (TSS) discharged to Marina del Rey Harbor Back Basins D, E, and F:

Constituent	Effluent Limitations		
Constituent	Annual	Units	
Copper	2.01	kg/yr	
Lead	2.75	kg/yr	
Zinc	8.85	kg/yr	
Chlordane	0.0295	g/yr	
Total PCBs	1.34	g/yr	

c. Permittees shall comply with interim and final water quality-based effluent limitations for pollutant loads associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F, per the schedule below:

If an Integrated Water Resources Approach is approved by the Regional Water Board and implemented then the Permittees shall comply with the final water quality-based effluent limitations no later than March 22, 2021. Attachment M -TMDLs in the Santa Monica Bay WMA M-18

Deadline	Total Drainage Area Served by the MS4 required to meet the effluent limitations (%)
March 22, 2014	50
March 22, 2016	100

d. If an approved Integrated Water Resources Approach is implemented, Permittees shall comply with interim and final water quality-based effluent limitations for pollutant loads associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the effluent limitations (%)
March 22, 2013	25
March 22, 2015	50
March 22, 2017	75
March 22, 2021	100

- **e.** Permittees shall be deemed in compliance with the water quality-based effluent limitations in Part F.2.b by demonstrating any one of the following:
 - i. Final water quality-based effluent limitations for pollutants associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F are met; or
 - ii. The sediment numeric targets as defined in the TMDL are met in bed E sediments; or
 - **iii.** Pollutant concentrations associated with TSS discharged meet the numeric targets for sediment as defined in the TMDL.

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ATTACHMENT N. TMDLs IN DOMINGUEZ CHANNEL AND GREATER HARBOR WATERS WATERSHED MANAGEMENT AREA

A. Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
- 2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles Harbor Main Ship Channel, Los Angeles and Long Beach Inner Harbor, and Inner Cabrillo Beach as of the effective date of this Order:

Constituent	Effluent Limitations (MPN or cfu)		
Constituent	Daily Maximum Geometric Me		
Total coliform*	10,000/100 mL	1,000/100 mL	
Fecal coliform	400/100 mL	200/100 mL	
Enterococcus	104/100 mL	35/100 mL	

Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

3. Receiving Water Limitations

a. Permittees shall comply with the following final single sample bacteria receiving water limitations for the Los Angeles Harbor Main Ship Channel and Inner Cabrillo Beach:

Time Period	Receiving Water	Compliance Monitoring	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
		Location	Daily sampling	Weekly sampling
Summer Dry-Weather	Inner Cabrillo Beach	CB1 & CB2	0	0
(April 1 to October 31)	Main Ship Channel	HW07	0	0
Winter Dry-Weather	Inner Cabrillo Beach	CB1 & CB2	0	0
(November 1 to March 31)	Main Ship Channel	HW07	3	1
Wet Weather ³⁰	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	15	3

b. Permittees shall comply with the following geometric mean receiving water limitations for the Los Angeles Harbor Main Ship Channel, Los Angeles and Long Beach Inner Harbor, and Inner Cabrillo Beach at all times:

 $^{^{30}}$ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event. Attachment N –TMDLs in the Dominguez Channel and Greater Harbor Waters WMA

Constituent	Geometric Mean	
Total coliform	1,000 MPN/100 mL	
Fecal coliform	200 MPN/100 mL	
Enterococcus	35 MPN/100 mL	

B. Machado Lake Trash TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
- 2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Machado Lake no later than March 6, 2016, and every year thereafter.
- 3. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to Machado Lake, per the schedule below:

Machado Lake Trash Water Quality-Based Effluent Limitations (gallons of uncompressed trash per year)

	31	3/6/2012	3/6/2013	3/6/2014	3/6/2015	3/6/2016
Permittees	Baseline ³¹	(80%)	(60%)	(40%)	(20%)	(0%)
			Annual Trash Discharge (gallons/yr)			r)
Carson	8141	6513	4885	3257	1628	0
Lomita	9393	7514	5636	3757	1879	0
City of Los						
Angeles	12331	9865	7399	4932	2466	0
Los Angeles						
County	8304	6643	4982	3322	1661	0
Los Angeles						
County Flood						
Control District	16	13	10	7	3	0
Palos Verdes						
Estates	1976	1581	1186	791	395	0
Rancho Palos						
Verdes	5227	4181	3136	2091	1045	0
Redondo						
Beach	18	15	11	7	4	0
Rolling Hills	7004	5603	4202	2801	1401	0
Rolling Hills						
Estates	14722	11777	8833	5889	2944	0
Torrance	34809	27847	20885	13924	6962	0

4. If a Permittee opts to derive a site specific trash generation rate through its Trash Monitoring and Reporting Plan (TMRP), the baseline limitation will be calculated by multiplying the point source area(s) by the derived trash generation rate(s).

The Regional Water Board calculated the baseline water quality-based effluent limitations for the Permittees based on the estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year. ³² Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year

thereafter.

Attachment N – TMDLs in the Dominguez Channel and Greater Harbor Waters WMA

5. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.

C. Machado Lake Nutrient TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
- **2.** Permittees shall comply with the following interim and final water quality-based effluent limitations for discharges to Machado Lake:

	Interim and Final Effluent Limitations		
Deadline	Monthly Average Total Phosphorus (mg/L)	Monthly Average Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (mg/L)	
As of the effective date of this Order	1.25	3.5	
March 11, 2014	1.25	2.45	
September 11, 2018	0.10	1.0	

- **3.** Compliance Determination
 - **a.** Permittees may be deemed in compliance with the water quality-based effluent limitations by actively participating in a Lake Water Quality Management Plan (LWQMP) and attaining the receiving water limitations for Machado Lake. The City of Los Angeles has entered into a Memorandum of Agreement with the Regional Water Board to implement the LWQMP and reduce external nutrient loading to attain the following receiving water limitations:

	Interim and Final Receiving Water Limitations Monthly Average Total Phosphorus (mg/L) (TKN+NO ₃ -N+NO ₂ -N) (mg/L)		
Deadline			
As of the effective date of this Order	1.25	3.5	
March 11, 2014	1.25	2.45	
September 11, 2018	0.10	1.0	

- **b.** Permittees may be deemed in compliance with water quality-based effluent limitations by demonstrating reduction of total nitrogen and total phosphorous on an annual mass basis measured at the storm drain outfall of the Permittee's drainage area where approved by the Regional Water Board Executive Officer based on the results of a special study by the Permittee.³³
 - **i.** The County of Los Angeles submitted a special study work plan, which was approved by the Regional Water Board Executive Officer, and established the following annual mass-based water quality based effluent limitations:

Deadline Interim and Final Effluent Limitations

³³ The annual mass-based allocation shall be equivalent to a monthly average concentration of 0.1 mg/L total phosphorus and 1.0 mg/L total nitrogen based on approved flow conditions.

Attachment N – TMDLs in the Dominguez Channel and Greater Harbor Waters WMA

	Annual Load Total Phosphorus (kg)	Annual Load Total Nitrogen (TKN+NO₃-N+NO₂-N) (kg)
March 11, 2014	887	1739
September 11, 2018	71	710

ii. The City of Torrance submitted a special study work plan, which was approved by the Regional Water Board Executive Officer, and established the following annual mass-based water quality based effluent limitations:

	Interim and Final	Effluent Limitations
Deadline	Annual Load Total Phosphorus (kg)	Annual Load Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (kg)
March 11, 2014	3,760	7,370
September 11, 2018	301	3008

D. Machado Lake Pesticides and PCBs TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
- 2. Permittees shall comply with the following water quality-based effluent limitations for discharges of suspended sediments to Machado Lake, applied as a 3-year average no later than September 30, 2019:

Pollutant	Effluent Limitations for Suspended Sediment-Associated Contaminants (µg/kg dry weight)
Total PCBs	59.8
DDT (all congeners)	4.16
DDE (all congeners)	3.16
DDD (all congeners)	4.88
Total DDT	5.28
Chlordane	3.24
Dieldrin	1.9

- E. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL
 - 1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
 - 2. Permittees shall comply with the following interim water quality-based effluent limitations for discharges to Dominguez Channel and Torrance Lateral listed below as of the effective date of this Order:
 - a. Dominguez Channel Freshwater Wet Weather
 - i. The freshwater toxicity interim water quality-based effluent limitation is 2 TUc. The freshwater interim effluent limitation shall be implemented as a trigger requiring initiation and implementation of the TRE/TIE process as outlined in

US EPA's "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program" (2000).

ii. Permittees shall comply with the following interim metals water quality-based effluent limitations for discharges to the Dominguez Channel and Torrance Lateral:

Metals	Interim Effluent Limitation Daily Maximum (µg/L)
Total Copper	207.51
Total Lead	122.88
Total Zinc	898.87

b. Permittees shall comply with the following interim concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment discharged to the Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters:

	Interim Effluent Limitations Daily Maximum					
	(mg/kg sediment)					
Water Body	Copper	Lead	Zinc	DDT	PAHs	PCBs
Dominguez Channel Estuary						
(below Vermont Avenue)	220.0	510.0	789.0	1.727	31.60	1.490
Long Beach Inner Harbor	142.3	50.4	240.6	0.070	4.58	0.060
Los Angeles Inner Harbor	154.1	145.5	362.0	0.341	90.30	2.107
Long Beach Outer Harbor						
(inside breakwater)	67.3	46.7	150	0.075	4.022	0.248
Los Angeles Outer Harbor						
(inside breakwater)	104.1	46.7	150	0.097	4.022	0.310
Los Angeles River Estuary	53.0	46.7	183.5	0.254	4.36	0.683
San Pedro Bay Near/Off						
Shore Zones	76.9	66.6	263.1	0.057	4.022	0.193
Los Angeles Harbor -						
Cabrillo Marina	367.6	72.6	281.8	0.186	36.12	0.199
Los Angeles Harbor -						
Consolidated Slip	1470.0	1100.0	1705.0	1.724	386.00	1.920
Los Angeles Harbor - Inner						
Cabrillo Beach Area	129.7	46.7	163.1	0.145	4.022	0.033
Fish Harbor	558.6	116.5	430.5	40.5	2102.7	36.6

- **3.** Permittees shall comply with the final water quality-based effluent limitations as listed below no later than March 23, 2032, and every year thereafter:
 - a. Dominguez Channel Freshwater Wet Weather
 - i. Freshwater Toxicity Effluent Limitation shall not exceed the monthly median of 1 TUc.
 - **ii.** Permittees shall comply with the following final metals water quality-based effluent limitations for discharges to Dominguez Channel and all upstream reaches and tributaries of Dominguez Channel above Vermont Avenue:

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Metals	Water Column Mass-Based Final Effluent Limitation Daily Maximum ³⁴ (g/day)
Total Copper	1,300.3
Total Lead	5,733.7
Total Zinc	9,355.5

- b. Torrance Lateral Freshwater and Sediment Wet Weather
 - i. Permittees shall comply with the following final metals water quality-based effluent limitations for discharges to the Torrance Lateral:

Metals	Water Column Effluent Limitation Daily Maximum ³⁵ (unfiltered, μg/L)
Total Copper	9.7
Total Lead	42.7
Total Zinc	69.7

ii. Permittees shall comply with the following final concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment discharged to the Torrance Lateral:

Metals	Concentration-Based Effluent Limitation Daily Maximum (mg/kg dry)
Total Copper	31.6
Total Lead	35.8
Total Zinc	121

- c. Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters
 - i. Permittees shall comply with the following final mass-based water qualitybased effluent limitations, expressed as an annual loading of pollutants in the sediment deposited to Dominguez Channel Estuary, Los Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

	Final Effluent Limitations Annual (kg/yr)			
Water Body	Total Cu	Total Pb	Total Zn	Total PAHs

³⁴ Effluent limitations are based on a hardness of 50 mg/L, and 90th percentile of annual flow rates (62.7 cfs) in Dominguez Channel. Recalculated mass-based effluent limitations using ambient hardness and flow rate at the time of sampling are consistent with the assumptions and requirements of the TMDL. In addition to the effluent limitations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the California Toxics Rule (CTR) are achieved.

Effluent limitations are based on a hardness of 50 mg/L. Recalculated concentration-based effluent limitations using ambient hardness at the time of sampling are consistent with the assumptions and requirements of the TMDL. In addition to the effluent limitations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the CTR are achieved. Attachment N – TMDLs in the Dominguez Channel and Greater Harbor Waters WMA

	Final Effluent Limitations Annual (kg/yr)					
Water Body	Total Cu	Total Pb	Total Zn	Total PAHs		
Dominguez Channel Estuary	22.4	54.2	271.8	0.134		
Consolidated Slip	2.73	3.63	28.7	0.0058		
Inner Harbor	1.7	34.0	115.9	0.088		
Outer Harbor	0.91	26.1	81.5	0.105		
Fish Harbor (POLA)	0.00017	0.54	1.62	0.007		
Cabrillo Marina (POLA)	0.0196	0.289	0.74	0.00016		
San Pedro Bay	20.3	54.7	213.1	1.76		
LA River Estuary	35.3	65.7	242.0	2.31		

ii. Permittees shall comply with the following final concentration-based water quality-based effluent limitations for pollutant concentrations in the sediments discharged to the Dominguez Channel Estuary, Consolidated Slip, and Fish Harbor:

Water Body	Effluent Limitations Daily Maximum (mg/kg dry sediment)				
	Cadmium	Chromium	Mercury		
Dominguez Channel Estuary	1.2				
Consolidated Slip	1.2	81	0.15		
Fish Harbor			0.15		

d. Permittees shall comply with the following final mass-based water guality-based effluent limitations, expressed as an annual loading of total DDT and total PCBs in the sediment deposited to Dominguez Channel Estuary, Los Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

	Final Effluent Limitations Annual (g/yr)			
Water Body	DDT total	PCBs total		
Dominguez Channel Estuary	0.250	0.207		
Consolidated Slip	0.009	0.004		
Inner Harbor	0.051	0.059		
Outer Harbor	0.005	0.020		
Fish Harbor	0.0003	0.0019		
Cabrillo Marina	0.000028	0.000025		
Inner Cabrillo Beach	0.0001	0.0003		
San Pedro Bay	0.049	0.44		
LA River Estuary	0.100	0.324		

- 4. Compliance Determination
- a. Permittees shall be deemed in compliance with the interim concentration-based water guality-based effluent limitations for pollutant concentrations in the Attachment N -TMDLs in the Dominguez Channel and Greater Harbor Waters WMA

sediment as listed above in part E.2.b by meeting any one of the following methods:

- i. Demonstrate that the sediment quality condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Objectives (SQO) Part 1, is met; or
- **ii.** Meet the interim water quality-based effluent limitations in bed sediment over a three-year averaging period; or
- **iii.** Meet the interim water quality-based effluent limitations in the discharge over a three-year averaging period.
- **b.** Permittees shall be deemed in compliance with the final fresh water metals water quality-based effluent limitations for discharges to Dominguez Channel and Torrance Lateral as listed above in parts E.3.a.ii and E.3.b.i by meeting any one of the following methods:
 - i. Final metals water quality-based effluent limitations are met; or
 - ii. CTR total metals criteria are met instream; or
 - iii. CTR total metals criteria are met in the discharge.
- **c.** Permittees shall be deemed in compliance with the final water quality-based effluent limitations for pollutants in the sediment as listed above in parts E.3.c.i and E.3.c.ii by meeting any one of the following methods:
 - i. Final water quality-based effluent limitations for pollutants in the sediment are met; or
 - **ii.** The qualitative sediment condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the SQO Part 1, is met, with the exception of chromium, which is not included in the SQO Part 1; or
 - iii. Sediment numeric targets are met in bed sediments over a three-year averaging period.
- **d.** Permittees shall be deemed in compliance with the final water quality-based effluent limitations for total DDT and total PCBs in the sediment as listed above in part E.3.d by meeting any one of the following methods:
 - i. Fish tissue targets are met in species resident to the specified water bodies³⁶; or
 - ii. Final water quality-based effluent limitations for pollutants in the sediment are met; or
 - iii. Sediment numeric targets to protect fish tissue are met in bed sediments over a three-year averaging period; or

³⁶ A site-specific study to determine resident species shall be submitted to the Regional Water Board Executive Officer for approval.

iv. Demonstrate that the sediment quality condition protective of fish tissue is achieved per the State Water Board's Statewide Enclosed Bays and Estuaries Plan.

ORDER NO. R4-2012-XXXX

NPDES NO. CAS004001

ATTACHMENT O. TMDLs IN LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

A. Los Angeles River Watershed Trash TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- 2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to the Los Angeles River no later than September 30, 2016 and every year thereafter.
- **3.** Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to the Los Angeles River, per the schedule below:

Permittees	2012	2013	2014	2015	2016 ³⁹
	(30%)	(20%)	(10%)	(3.3%)	(0%)
Alhambra	11971	7981	3990	1317	0
Arcadia	15032	10022	5011	1654	0
Bell	4808	3205	1603	529	0
Bell Gardens	4050	2700	1350	446	0
Bradbury	1283	855	428	141	0
Burbank	27777	18518	9259	3055	0
Calabasas	6752	4501	2251	743	0
Carson	2050	1366	683	225	0
Commerce	17620	11747	5873	1938	0
Compton	15957	10638	5319	1755	0
Cudahy	1781	1187	594	196	0
Downey	11719	7813	3906	1289	0
Duarte	3663	2442	1221	403	0
El Monte	12662	8442	4221	1393	0
Glendale	42094	28063	14031	4630	0
Hidden Hills	1099	733	366	121	0
Huntington Park	5748	3832	1916	632	0
Irwindale	3706	2470	1235	408	0
La Cañada Flintridge	10049	6699	3350	1105	0
Los Angeles	412454	274969	137485	45370	0
Los Angeles County	93067	62045	31022	10237	0
Lynwood	8460	5640	2820	931	0
Maywood	1839	1226	613	202	0
Monrovia	14006	9337	4669	1541	0
Montebello	15111	10074	5037	1662	0
Monterey Park	11670	7780	3890	1284	0
Paramount	8236	5490	2745	906	0
Pasadena	33599	22400	11200	3696	0
Pico Rivera	4186	2791	1395	460	0
Rosemead	8192	5461	2731	901	0
San Fernando	4184	2789	1395	460	0
San Gabriel	6103	4069	2034	671	0

Los Angeles River Watershed Trash Effluent Limitations³⁷ per Storm Year³⁸ (gallons of uncompressed trash)

³⁷ Effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations specified in Table 7-2.2 of the Basin Plan.

³⁸ Storm year is defined as October 1 to September 30 herein.

³⁹ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

Attachment O – TMDLs in the Los Angeles River WMA

Los Angeles County Municipal Separate Storm Sewer System

ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

Permittees	2012	2013	2014	2015	2016 ³⁹
	(30%)	(20%)	(10%)	(3.3%)	(0%)
San Marino	4317	2878	1439	475	0
Santa Clarita	270	180	90	30	0
Sierra Madre	3483	2322	1161	383	0
Signal Hill	2830	1887	943	311	0
Simi Valley	41	27	14	5	0
South El Monte	4800	3200	1600	528	0
South Gate	13171	8781	4390	1449	0
South Pasadena	4472	2981	1491	492	0
Temple City	5272	3514	1757	580	0
Vernon	14161	9441	4720	1558	0

Los Angeles River Watershed Trash Effluent Limitations ⁴⁰ per Storm Year ⁴¹	
(pounds of drip-dry trash)	

Permittees	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ⁴² (0%)
Alhambra	20628	13752	6876	2269	0
Arcadia	27911	18607	9304	3070	0
Bell	7601	5067	2534	836	0
Bell Gardens	7001	4674	2337	771	0
Bradbury	3648	2432	1216	401	0
Burbank	51117	34078	17039	5623	0
Calabasas	15669	10446	5223	1724	0
Carson	3062	2042	1021	337	0
Commerce	25644	17096	8548	2821	0
Compton	25907	17271	8636	2850	0
Cudahy	3018	2012	1006	332	0
Downey	20552	13701	6851	2261	0
Duarte	7106	4737	2369	782	0
El Monte	20480	13653	6827	2253	0
Glendale	88049	58700	29350	9685	0
Hidden Hills	3246	2164	1082	357	0
Huntington Park	9279	6186	3093	1021	0
Irwindale	5373	3582	1791	591	0
La Cañada Flintridge	22124	14749	7375	2434	0
Los Angeles	771750	514500	257250	84893	0
Los Angeles County	195542	130361	65181	21510	0
Lynwood	13940	9293	4647	1533	0
Maywood	3165	2110	1055	348	0
Monrovia	30296	20198	10099	3333	0
Montebello	25112	16741	8371	2762	0
Monterey Park	21137	14091	7046	2325	0
Paramount	13347	8898	4449	1468	0
Pasadena	62254	41503	20751	6848	0
Pico Rivera	6765	4510	2255	744	0
Rosemead	14213	9476	4738	1563	0
San Fernando	6923	4615	2308	762	0

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 ⁴⁰ Effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations specified in Table 7-2.2 of the Basin Plan.
 ⁴¹ Storm year is defined as October 1 to September 30 herein.
 ⁴² Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year

thereafter.

Attachment O -TMDLs in the Los Angeles River WMA

Permittees	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ⁴² (0%)
San Gabriel	10931	7287	3644	1202	0
San Marino	8744	5829	2915	962	0
Santa Clarita	698	465	233	77	0
Sierra Madre	7558	5038	2519	831	0
Signal Hill	4266	2844	1422	469	0
Simi Valley	103	69	34	11	0
South El Monte	7296	4864	2432	803	0
South Gate	21700	14467	7233	2387	0
South Pasadena	8507	5671	2836	936	0
Temple City	9546	6364	3182	1050	0
Vernon	20044	13363	6681	2205	0

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in A.2 and A.3 above per the provisions in Part VI.E.5.

B. Los Angeles River Nitrogen Compounds and Related Effects TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- 2. Permittees shall comply with the following water quality-based effluent limitations as of the effective date of this Order:

Water Body	NH ₃ -N	(mg/L)	NO ₃ -N (mg/L)	NO ₂ -N (mg/L)	NO ₃ -N+NO ₂ -N (mg/L)
Water Body	One-hour Average	Thirty-day Average	Thirty-day Average	Thirty-day Average	Thirty-day Average
Los Angeles River above Los Angeles-Glendale WRP (LAG)	4.7	1.6	8.0	1.0	8.0
Los Angeles River below LAG	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

C. Los Angeles River and Tributaries Metals TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- Final Water Quality-Based Effluent Limitations
 - a. The watershed is divided into five jurisdictional groups based on the subwatersheds of the tributaries that drain to each reach of the river. Each jurisdictional group shall achieve compliance in prescribed percentages of its subwatershed(s). Jurisdictional groups can be reorganized or subdivided upon approval by the Regional Water Board Executive Officer.
 - **b.** Permittees shall comply with the following grouped⁴³ dry weather⁴⁴ water qualitybased effluent limitations no later than January 11, 2024, expressed as total recoverable metals.45

The dry weather water quality-based effluent limitations are grouped-based and shared by the MS4 Permittees that are located within the drainage area.

Dry weather is defined as any day when the maximum daily flow in the Los Angeles River is less than 500 cfs measured at the Wardlow gage station.

⁴⁵ Dry weather effluent limitations are equal to storm drain flows (critical flows minus median POTW flows minus median open space flows) multiplied by reach specific numeric targets, minus the contribution from direct air deposition. Attachment O – TMDLs in the Los Angeles River WMA

Waterbody	Effluent Limitations Daily Maximum (kg/day)			
	Copper	Lead	Zinc	
LA River Reach 6	WER ¹ x 0.53	WER ¹ x 0.33		
LA River Reach 5	WER ¹ x 0.05	WER ¹ x 0.03		
LA River Reach 4	WER ¹ x 0.32	WER ¹ x 0.12		
LA River Reach 3	WER ¹ x 0.06	WER ¹ x 0.03		
LA River Reach 2	WER ¹ x 0.13	WER ¹ x 0.07		
LA River Reach 1	WER ¹ x 0.14	WER ¹ x 0.07		
Bell Creek	WER ¹ x 0.06	WER ¹ x 0.04		
Tujunga Wash	WER ¹ x 0.001	WER ¹ x 0.0002		
Burbank Channel	WER ¹ x 0.15	WER ¹ x 0.07		
Verdugo Wash	WER ¹ x 0.18	WER ¹ x 0.10		
Arroyo Seco	WER ¹ x 0.01	WER ¹ x 0.01		
Rio Hondo Reach 1	WER ¹ x 0.01	WER ¹ x 0.006	WER ¹ x 0.16	
Compton Creek	WER ¹ x 0.04	WER ¹ x 0.02		

 $^1 \rm WER(s)$ have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

c. In lieu of calculating loads, Permittees may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather no later than January 11, 2024, expressed as total recoverable metals:

Waterbody	Effluent Limitations Daily Maximum (µg total recoverable metals/L)			Daily Maximu (µg total recoverable		
	Copper	Copper Lead Zi				
LA River Reach 5, 6 and Bell Creek	WER ¹ x 30	WER ¹ x 19				
LA River Reach 4	WER ¹ x 26	WER ¹ x 10				
LA River Reach 3 above LA-Glendale WRP and Verdugo Wash	WER ¹ x 23	WER ¹ x 12				
LA River Reach 3 below LA-Glendale WRP	WER ¹ x 26	WER ¹ x 12				
Burbank Western Channel (above WRP)	WER ¹ x 26	WER ¹ x 14				
Burbank Western Channel (below WRP)	WER ¹ x 19	WER ¹ x 9.1				
LA River Reach 2 and Arroyo Seco	WER ¹ x 22	WER ¹ x 11				
LA River Reach 1	WER ¹ x 23	WER ¹ x 12				
Compton Creek	WER ¹ x 19	WER ¹ x 8.9				
Rio Hondo Reach 1	WER ¹ x 13	WER ¹ x 5.0	WER ¹ x 131			

¹WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

d. Permittees shall comply with the following grouped⁴⁶ wet weather⁴⁷ water qualitybased effluent limitations no later than January 11, 2028, expressed as total recoverable metals discharged to all reaches of the Los Angeles River and its tributaries.

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER ¹ x 2.8 x 10 ⁻⁹ x daily volume (L) – 1.8
Copper	WER ¹ x 1.5 x 10^{-8} x daily volume (L) – 9.5
Lead	WER ¹ x 5.6 x 10^{-8} x daily volume (L) – 3.85
Zinc	WER ¹ x 1.4 x 10^{-7} x daily volume (L) – 83

¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

3. Permittees shall comply with interim and final water quality-based effluent limitations for metals discharged to the Los Angeles River and its tributaries, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)		
	Dry weather	Wet weather	
January 11, 2012	50	25	
January 11, 2020	75		
January 11, 2024	100	50	
January 11, 2028	100	100	

D. Los Angeles River Watershed Bacteria TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- 2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

⁴⁶ The wet weather water quality-based effluent limitations are grouped-based and shared among all MS4 Permittees located within the drainage area.

⁴⁷ Wet weather is defined as any day when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs measured at the Wardlow gage station.

Attachment O – TMDLs in the Los Angeles River WMA

Constituent	Effluent Limitation (MPN or cfu)		
Concentration	Daily Maximum Geometric Mea		
E. coli	235/100 mL	126/100 mL	

3. Permittees shall comply with the following grouped⁴⁸ interim dry weather single sample bacteria water quality-based effluent limitations for specific river segments and tributaries as listed in the table, below, according to the schedule in Table O-1:

River Segment or Tributary	Daily Maximum <i>E. coli</i> Load (10 ⁹ MPN/Day)
Los Angeles River Segment A (Willow to Rosecrans)	301
Los Angeles River Segment B (Rosecrans to Figueroa)	518
Los Angeles River Segment C (Figueroa to Tujunga)	463
Los Angeles River Segment D (Tujunga to Balboa)	454
Los Angeles River Segment E (Balboa to headwaters)	32
Aliso Canyon Wash	23
Arroyo Seco	24
Bell Creek	14
Bull Creek	9
Burbank Western Channel	86
Compton Creek	7
Dry Canyon	7
McCoy Canyon	7
Rio Hondo	2
Tujunga Wash	10
Verdugo Wash	51

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- a. Unexpectedly high-loading outfalls may be excluded from interim compliance calculations under the following circumstances: If an outfall which was 1) loading E. coli at a rate less than the 25th percentile of outfalls during the monitoring events used to develop the "MS4 Load Reduction Strategy" (LRS), but, at the time of compliance monitoring, is 2) loading E. coli at a rate greater than the 90th percentile of outfalls, and 3) actions are taken prior to the end of the first phase (i.e. 10 years after the beginning of the segment or tributary specific phase) such that the outfall is returned to a loading less than the 50th percentile of the outfalls

⁴⁸ The interim dry weather water quality-based effluent limitations are group-based and shared among all MS4 Permittees located within the drainage area. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer. Attachment O –TMDLs in the Los Angeles River WMA O-6

at compliance monitoring, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.

- **b.** Likewise, if an outfall which was 1) the subject of a dry weather diversion is found, at the time of compliance monitoring, to be 2) contributing greater than the 90th percentile loading rate, and 3) actions are taken such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, and a maintenance schedule for the diversion is submitted with the compliance report, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.
- 4. Receiving Water Limitations
 - **a.** Permittees shall comply with the following grouped⁴⁹ final single sample bacteria receiving water limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)			
	Daily Sampling	Weekly Sampling		
Dry Weather	5	1		
Non-HFS ⁵⁰ Waterbodies Wet Weather	15	2		
HFS Waterbodies Wet Weather	10 (not including HSF days)	2 (not including HSF days)		

b. Permittees shall comply with the following geometric mean receiving water limitation for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Constituent	Geometric Mean (MPN or cfu)	
E. coli	126/100 mL	

Table O-1. Los Angeles River Bacteria Implementation Schedule for Dry Weather

Italics in this Table refer to Permittees using an alternative compliance plan instead of an LRS.

Implementation Action	Responsible Parties	Deadline		
SEGMENT B (upper and middle Reach 2 – Figueroa Street to Rosecrans Avenue)				
First phase – Segment B				
Submit a Load Reduction Strategy (LRS) for Segment B (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment B	September 23, 2014		

⁴⁹ The final receiving water limitations are group-based and shared among all MS4 Permittees, which includes LA MS4, Long Beach MS4, and Caltrans.

⁵⁰ HFS stands for high flow suspension as defined in Chapter 2 of the Basin Plan.

Attachment O –TMDLs in the Los Angeles River WMA

RB-AR4038

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 Permittees discharging to Segment B, if using LRS	March 23, 2019
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment B, if using LRS	March 23, 2022
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B, if using alternative compliance plan	March 23, 2022
Second phase, if necessary – Seg	ment B for LRS approach only	
Submit a new LRS	MS4 Permittees discharging to Segment B	March 23, 2023
Complete implementation of LRS	MS4 Permittees discharging to Segment B, if using LRS	September 23, 2026
Achieve final water quality-based effluent limitations in Segment B or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B, if using LRS	September 23, 2028
SEGMENT B TRIBUTARIES (Rio H	londo and Arroyo Seco)	
First phase – Segment B Tributari	es (Rio Hondo and Arroyo Seco)	
Submit a Load Reduction Strategy (LRS) for Segment B tributaries (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment B tributaries	March 23, 2016
Complete implementation of LRS	MS4 Permittees discharging to Segment B tributaries, if using LRS	September 23, 2020
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment B tributaries, if using LRS	September 23, 2023
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B tributaries, if using alternative compliance plan	September 23, 2023
Second phase, if necessary – S approach only	Segment B Tributaries (Rio Hondo	and Arroyo Seco) for LRS
Submit a new LRS	MS4 Permittees discharging to Segment B tributaries	September 23, 2024

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 Permittees discharging to Segment B tributaries, if using LRS	March 23, 2028
Achieve final water quality-based effluent limitations Segment B tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B tributaries, if using LRS	March 23, 2030
SEGMENT A (lower Reach 2 and F	Reach 1 – Rosecrans Avenue to Willo	ow Street)
First phase – Segment A		
Submit a Load Reduction Strategy (LRS) for Segment A (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A	September 23, 2016
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2021
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2024
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using alternative compliance plan	March 23, 2024
Second phase, if necessary – Seg	ment A for LRS approach only	
Submit a new LRS	MS4 Permittees discharging to Segment A	March 23, 2025
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2029
Achieve final water quality-based effluent limitations in Segment A or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2031
SEGMENT A TRIBUTARY (Compto	on Creek)	
First phase – Segment A Tributary	1	
Submit a Load Reduction Strategy (LRS) for Segment A tributary (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A tributary	March 23, 2018
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2022

RB-AR4040

Implementation Action	Responsible Parties	Deadline
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2025
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary, if using alternative compliance plan	September 23, 2025
Second phase, if necessary – Seg	ment A Tributary for LRS approach	only
Submit a new LRS	MS4 Permittees discharging to Segment A tributary	September 23, 2026
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2030
Achieve final water quality-based effluent limitations in Segment A tributary or demonstrate that non- compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2032
Balboa Boulevard) First phase – Segment E	headwaters [confluence with Bell C	
Submit a Load Reduction Strategy (LRS) for Segment E (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment E	September 23, 2017
Complete implementation of LRS	MS4 Permittees discharging to Segment E, if using LRS	March 23, 2022
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment E, if using LRS	March 23, 2025
quality-based effluent limitations and submit report to Regional		March 23, 2025 March 23, 2025
quality-based effluent limitations and submit report to Regional Water Board Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit	Segment E, if using LRS MS4 Permittees discharging to Segment E, if using alternative compliance plan	
quality-based effluent limitations and submit report to Regional Water Board Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	Segment E, if using LRS MS4 Permittees discharging to Segment E, if using alternative compliance plan	

Implementation Action	Responsible Parties	Deadline
Achieve final Water quality-based effluent limitations in Segment E or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment E, if using LRS	September 23, 2031
SEGMENT E TRIBUTARIES (Dry C	anyon Creek, McCoy Creek, Bell Cre	ek, and Aliso Canyon Wash)
First phase – Segment E Tributario	es	
Submit a Load Reduction Strategy (LRS) for Segment E tributaries (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment E tributaries	September 23, 2021
Complete implementation of LRS	MS4 Permittees discharging to Segment E tributaries if using LRS	March 23, 2026
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment E tributaries, if using LRS	March 23, 2029
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment E tributaries, if using alternative compliance plan	March 23, 2029
Second phase, if necessary – Seg	ment E Tributaries for LRS approach	only
Submit a new LRS	MS4 Permittees discharging to Segment E tributaries	March 23, 2030
Complete implementation of LRS	MS4 Permittees discharging to Segment E tributaries, if using LRS	September 23, 2033
Achieve final water quality-based effluent limitations in Segment E tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment E tributaries, if using LRS	September 23, 2035
SEGMENT C TRIBUTARIES (Tujur SEGMENT D (Reach 5 and upper F SEGMENT D TRIBUTARIES (Bull C		l, and Verdugo Wash) Iga Avenue)
First phase – Segment C, Segmen	t C Tributaries, Segment D, Segment	D tributaries
Submit a Load Reduction Strategies (LRS) for Segment C, Segment C tributaries, Segment D, Segment D tributaries (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	March 23, 2023

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	September 23, 2027
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	September 23, 2030
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using alternative compliance plan	September 23, 2030
Second phase, if necessary - S Tributaries for LRS approach only	Segment C, Segment C Tributaries	s, Segment D, Segment D
Submit a new LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	September 23, 2031
Complete implementation of LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	March 23, 2035
Achieve final water quality-based effluent limitations in Segment C, Segment C tributaries, Segment D, Segment D tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	March 23, 2037

5. Compliance

- **a.** Permittees may demonstrate compliance with the final dry weather limitations by demonstrating that final receiving water limitations are met in the receiving waters or by demonstrating one of the following conditions at outfalls to the receiving waters:
 - i. Flow-weighted concentration of *E. coli* in MS4 discharges during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge during dry weather.
- **b.** In addition, individual Permittees or subgroups of Permittees may differentiate their dry weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries:

- i. The flow-weighted concentration of E. coli in a Permittee's individual discharge or in a group of Permittees' collective discharge during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or
- **ii.** Zero discharge from a Permittee's individual outfall(s) or from a group of Permittees' outfall(s) during dry weather; or
- **iii.** Demonstration that the MS4 loading of E. coli to the segment or tributary during dry weather is less than or equal to the calculated loading rate that would not cause or contribute to exceedances based on the loading capacity representative of conditions in the River at the time of compliance.
- **c.** The interim dry weather water quality-based effluent limitations are group-based, shared among all MS4 Permittees that drain to a segment or tributary. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.
- E. Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)
 - 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - 2. Permittees shall comply with the following final WLAs for discharges to the Los Angeles River Estuary per the provisions in Part VI.E.3:

Constituent	WLA (MPN or cfu)	
Constituent	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

- 3. Receiving Water Limitations
 - **a.** Permittees shall comply with the following grouped⁵¹ final single sample bacteria WLAs for the Los Angeles River Estuary per the provisions in Part VI.E.3:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily sampling	Weekly sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	9	2

⁵¹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

Wet Weather ⁵²	17	3

b. Permittees shall comply with the following geometric mean receiving water limitations for all monitoring stations in the Los Angeles River Estuary per the provisions in Part VI.E.3:

Constituent	Geometric Mean (MPN or cfu)	
Total coliform	1,000/100 mL	
Fecal coliform	200/100 mL	
Enterococcus	35/100 mL	

- 4. Compliance Determination
 - a. Permittees may demonstrate compliance with the final dry or weather WLAs by demonstrating that final WLAs expressed as allowable exceedance days are met in the receiving waters or by demonstrating one of the following conditions at outfalls to the receiving waters:
 - i. Flow-weighted concentration of bacterial indicators in MS4 discharges during dry or wet weather is less than or equal to the WLAs in part E.2 above, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge during dry weather.
 - **b.** In addition, individual Permittees or subgroups of Permittees may differentiate their dry or wet weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries:
 - i. The flow-weighted concentration of bacterial indicators in a Permittee's individual discharge or in a group of Permittees' collective discharge during dry or wet weather is less than or equal to the WLAs in part E.2 above, based on a weighted-average using flow rates from all measured outfalls; or
 - **ii.** Zero discharge from a Permittee's individual outfall(s) or from a group of Permittees' outfall(s) during dry weather.

F. Los Angeles Area Lakes TMDLs (USEPA established)

- 1. Lake Calabasas Nutrient TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Permittee	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
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⁵² Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event. Attachment O –TMDLs in the Los Angeles River WMA

City of Calabasas	48.5	220
	e point of discharg	
	quivalent to existing co	
mg/L total phosph	orus as a summer ave	rage (May-September)
and annual average, and 0.66 mg/L total nitrogen as a summer		
average (May-Se	eptember) and annua	I average based on

approved flow conditions.

- **d.** The following concentration-based WLAs shall apply during both wet and dry weather if:
 - i. The Regional Water Board Executive Officer approves a request by the Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - **ii.** The Permittee shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved and the chlorophyll *a* target of 20 ug/L measured as a summer average (May-September) and as an annual average is met.
 - **iii.** If the applicable water quality objectives for ammonia, dissolved oxygen, pH are achieved, and the chlorophyll *a* target is met, then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
City of Calabasas	0.1	1.0

Measured as in-lake concentration and applied as a summer average (May-September) and an annual average.

- 2. Echo Park Lake Nutrient TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
Northern	City of Los Angeles	24.7	156
Southern	City of Los Angeles	7.129	49.69

Measured at the point of discharge using a three-year average. The mass-based allocations are equivalent to existing concentrations of 0.12 mg/L total phosphorus as a summer average (May-September) and annual average, and

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1.2 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- **d.** In assessing compliance with WLAs, Permittees assigned both northern and southern subwatershed allocations may have their allocations combined.
- e. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target of 20 ug/L as a summer average (May-September) and as an annual average is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.
- 3. Echo Park Lake PCBs TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight)	Total PCBs in the Water Column (ng/L)
Northern	City of Los Angeles	1.77	0.17
Southern	City of Los Angeles	1.77	0.17

c. Permittees shall comply with the following WLAs:

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total PCBs in the Water Column (ng/L) ^{****}
Northern	City of Los Angeles	59.8	0.17
Southern	City of Los Angeles	59.8	0.17

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

- 4. Echo Park Lake Chlordane TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (ug/kg dry weight)	Total Chlordane in the Water Column (ng/L)
Northern	City of Los Angeles	2.10	0.59
Southern	City of Los Angeles	2.10	0.59

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total Chlordane in the Water Column (ng/L) ^{*,***}
Northern	City of Los Angeles	3.24	0.59
Southern	City of Los Angeles	3.24	0.59

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

- 5. Echo Park Lake Dieldrin TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight)	Dieldrin in the Water Column (ng/L)
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Northern	City of Los Angeles	0.80	0.14
Southern	City of Los Angeles	0.80	0.14

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Dieldrin in the Water Column (ng/L) ^{*,***}
Northern	City of Los Angeles	1.90	0.14
Southern	City of Los Angeles	1.90	0.14

*Measured at the point of discharge.

Applied as a three-year average. *Applied as an annual average.

- 6. Echo Park Lake Trash TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Parts VI.E.3 and VI.E.5.
 - c. Permittees shall comply with the following WLA:

Permittee	Trash (Gal/year)	
City of Los Angeles	0	

- 7. Peck Road Park Lake Nutrient TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
Eastern	Arcadia	383	2,320

Subwatershed	Permittee	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
Eastern	Bradbury	497	3,223
Eastern	Duarte	1,540	9,616
Eastern	Irwindale	496	3,487
Eastern	County of Los Angles	924	5,532
Eastern	Monrovia	6,243	38,736
Near Lake	Arcadia	158	1,115
Near Lake	El Monte	96.2	602
Near Lake	Irwindale	28.2	207
Near Lake	County of Los Angeles	129	773
Near Lake	Monrovia	60.4	415
Western	Arcadia	2,840	16,334
Western	County of Los Angeles	467	2,818
Western	Monrovia	425	2,678
Western	Sierra Madre	695	4,254

Measured at the point of discharge using a three-year average. The massbased allocations are equivalent to existing concentrations of 0.076 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.76 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- **d.** If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target of 20 ug/L as a summer average (May-September) and as an annual average is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.
- 8. Peck Road Park Lake PCBs TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight)	Total PCBs in the Water Column (ng/L)
Eastern	Arcadia	1.29	0.17
Eastern	Bradbury	1.29	0.17
Eastern	Duarte	1.29	0.17
Eastern	Irwindale	1.29	0.17
Eastern	County of Los Angles	1.29	0.17
Eastern	Monrovia	1.29	0.17
Near Lake	Arcadia	1.29	0.17
Near Lake	El Monte	1.29	0.17
Near Lake	Irwindale	1.29	0.17
Near Lake	County of	1.29	0.17

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight)	Total PCBs in the Water Column (ng/L)
	Los Angeles		
Near Lake	Monrovia	1.29	0.17
Western	Arcadia	1.29	0.17
Western	County of Los Angeles	1.29	0.17
Western	Monrovia	1.29	0.17
Western	Sierra Madre	1.29	0.17

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total PCBs in the Water Column (ng/L) ^{*,***}
Eastern	Arcadia	59.8	0.17
Eastern	Bradbury	59.8	0.17
Eastern	Duarte	59.8	0.17
Eastern	Irwindale	59.8	0.17
Eastern	County of Los Angles	59.8	0.17
Eastern	Monrovia	59.8	0.17
Near Lake	Arcadia	59.8	0.17
Near Lake	El Monte	59.8	0.17
Near Lake	Irwindale	59.8	0.17
Near Lake	County of Los Angeles	59.8	0.17
Near Lake	Monrovia	59.8	0.17
Western	Arcadia	59.8	0.17
Western	County of Los Angeles	59.8	0.17
Western	Monrovia	59.8	0.17
Western	Sierra Madre	59.8	0.17

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

- 9. Peck Road Park Lake Chlordane TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.

b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (ug/kg dry weight)	Total Chlordane in the Water Column (ng/L)
Eastern	Arcadia	1.73	0.59
Eastern	Bradbury	1.73	0.59
Eastern	Duarte	1.73	0.59
Eastern	Irwindale	1.73	0.59
Eastern	County of Los Angles	1.73	0.59
Eastern	Monrovia	1.73	0.59
Near Lake	Arcadia	1.73	0.59
Near Lake	El Monte	1.73	0.59
Near Lake	Irwindale	1.73	0.59
Near Lake	County of Los Angeles	1.73	0.59
Near Lake	Monrovia	1.73	0.59
Western	Arcadia	1.73	0.59
Western	County of Los Angeles	1.73	0.59
Western	Monrovia	1.73	0.59
Western	Sierra Madre	1.73	0.59

c. Permittees shall comply with the following WLAs:

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total Chlordane in the Water Column (ng/L) ^{****}
Eastern	Arcadia	3.24	0.59
Eastern	Bradbury	3.24	0.59
Eastern	Duarte	3.24	0.59
Eastern	Irwindale	3.24	0.59
Eastern	County of Los Angles	3.24	0.59
Eastern	Monrovia	3.24	0.59
Near Lake	Arcadia	3.24	0.59
Near Lake	El Monte	3.24	0.59
Near Lake	Irwindale	3.24	0.59
Near Lake	County of Los Angeles	3.24	0.59

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total Chlordane in the Water Column (ng/L) ^{****}
Near Lake	Monrovia	3.24	0.59
Western	Arcadia	3.24	0.59
Western	County of Los Angeles	3.24	0.59
Western	Monrovia	3.24	0.59
Western	Sierra Madre	3.24	0.59

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

10. Peck Road Park DDT TMDL

- **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (ug/kg dry weight)	4-4' DDT in the Water Column (ng/L)
Eastern	Arcadia	5.28	0.59
Eastern	Bradbury	5.28	0.59
Eastern	Duarte	5.28	0.59
Eastern	Irwindale	5.28	0.59
Eastern	County of Los Angles	5.28	0.59
Eastern	Monrovia	5.28	0.59
Near Lake	Arcadia	5.28	0.59
Near Lake	El Monte	5.28	0.59
Near Lake	Irwindale	5.28	0.59
Near Lake	County of Los Angeles	5.28	0.59
Near Lake	Monrovia	5.28	0.59
Western	Arcadia	5.28	0.59
Western	County of Los Angeles	5.28	0.59
Western	Monrovia	5.28	0.59
Western	Sierra Madre	5.28	0.59

Measured at the point of discharge. Applied as an annual average.

11. Peck Road Park Lake Dieldrin TMDL

- **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight)	Dieldrin in the Water Column (ng/L)
Eastern	Arcadia	0.43	0.14
Eastern	Bradbury	0.43	0.14
Eastern	Duarte	0.43	0.14
Eastern	Irwindale	0.43	0.14
Eastern	County of Los Angles	0.43	0.14
Eastern	Monrovia	0.43	0.14
Near Lake	Arcadia	0.43	0.14
Near Lake	El Monte	0.43	0.14
Near Lake	Irwindale	0.43	0.14
Near Lake	County of Los Angeles	0.43	0.14
Near Lake	Monrovia	0.43	0.14
Western	Arcadia	0.43	0.14
Western	County of Los Angeles	0.43	0.14
Western	Monrovia	0.43	0.14
Western	Sierra Madre	0.43	0.14

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Dieldrin in the Water Column (ng/L) ^{*,***}
Eastern	Arcadia	1.90	0.14
Eastern	Bradbury	1.90	0.14
Eastern	Duarte	1.90	0.14
Eastern	Irwindale	1.90	0.14
Eastern	County of Los Angles	1.90	0.14
Eastern	Monrovia	1.90	0.14
Near Lake	Arcadia	1.90	0.14
Near Lake	El Monte	1.90	0.14
Near Lake	Irwindale	1.90	0.14
Near Lake	County of Los Angeles	1.90	0.14
Near Lake	Monrovia	1.90	0.14
Western	Arcadia	1.90	0.14
Western	County of	1.90	0.14



Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Dieldrin in the Water Column (ng/L) ^{****}
	Los Angeles		
Western	Monrovia	1.90	0.14
Western	Sierra Madre	1.90	0.14

*Measured at the point of discharge. **Applied as a three-year average. ***Applied as an annual average.

12. Peck Road Park Lake Trash TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Parts VI.E.3 and VI.E.5.
- c. Permittees shall comply with the following WLA:

Permittee	Trash (gal/year)
Arcadia	0
Bradbury	0
Duarte	0
El Monte	0
Irwindale	0
County of Los	0
Angeles	0
Monrovia	0
Sierra Madre	0

RB-AR4055

ATTACHMENT P. TMDLs IN SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

- A. San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL (USEPA established)
 - 1. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - 2. Permittees shall comply with the following grouped⁵³ wet weather⁵⁴ WLAs, expressed as total recoverable metals discharged to all upstream reaches and tributaries of the San Gabriel River Reach 2 and Coyote Creek per the provisions in Part VI.E.3:

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2		81.34 x daily storm volume (L)	
Coyote Creek	24.71 x daily storm volume (L)	96.99 x daily storm volume (L)	144.57 x daily storm volume (L)

3. Permittees shall comply with the following grouped⁷² dry weather WLAs, expressed as total recoverable metals discharged to San Gabriel River Reach 1, Coyote Creek, San Gabriel River Estuary, and San Jose Creek Reach 1 and Reach 2 per the provisions in Part VI.E.3:

	WL	4
Water Body	Daily Max	kimum
	Copper	Selenium
San Gabriel Reach 1	18 ug/L	
Coyote Creek	0.941 kg/day*	
San Gabriel River Estuary	3.7 ug/L	
San Jose Creek Reach 1 and 2		5 ug/L

*Calculated based upon the median flow at LACDPW Station F354-R of 19 cfs multiplied by the numeric target of 20 ug/L, minus direct air deposition of 0.002 kg/d.

4. Permittees may convert the grouped mass-based WLAs into individual WLAs based on the percentage of the watershed and land uses within the Permittee's jurisdiction, upon approval of the Regional Water Board Executive Officer.

B. Legg Lake Trash TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- 2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Legg Lake no later than March 6, 2016, and every year thereafter.

⁵³ The wet weather and dry weather water WLAs are group-based and shared among all MS4 Permittees, which includes LA _MS4 Permittees, the City of Long Beach, and Orange County MS4 Permittees located within the drainage area and Caltrans.

⁵⁴ In San Gabriel River Reach 2, wet weather TMDLs apply when the maximum daily flow of the river is equal to or greater than 260 cfs as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. In Coyote Creek, wet weather TMDLs apply when the maximum daily flow in the creek is equal to or greater than 156 cfs as measured at LACDPW flow gauge station F354-R, located at the bottom of the creek, just above the Long Beach WRP.

Attachment P – TMDLs in the San Gabriel River WMA

3. Permittees that choose to comply via a full capture compliance strategy must demonstrate a phased implementation of full capture devices attaining interim effluent limitations over the following 8-year period until the final effluent limitation of zero is attained:

	Effluent Limitation
Deadline	Drainage Area covered by Full Capture Systems
	(%)
March 6, 2008	0
March 6, 2012	20
March 6, 2013	40
March 6, 2014	60
March 6, 2015	80
March 6, 2016	100

Legg Lake Trash Effluent Limitations ⁵⁵	(gallons of uncompressed trash per year)
Legg Lake Hash Lindent Linitations	(ganons of ancompressed trash per year)

		(ganone et aneempreesea naemper Jear)				
Permittees	Baseline ⁵⁶ (100%)	3/6/2012 (80%)	3/6/2013 (60%)	3/6/2014 (40%)	3/6/2015 (20%)	3/6/2016 ⁵⁷ (0%)
Los Angeles County	2400.03	1920.02	1440.02	960.01	480.01	0
Los Angeles County Flood Control District	24.05	19.24	14.43	9.62	4.81	0
City of El Monte	509.48	407.58	305.69	203.79	101.90	0
City of South El Monte	3896.76	3117.41	2338.06	1558.70	779.35	0

- **4.** Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.
- 5. If a Permittee opts to derive site specific trash generation rates through its Trash Monitoring and Reporting Plan (TMRP), the baseline limitation shall be calculated by multiplying the point source area(s) by the derived trash generation rate(s).
- 6. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.

⁵⁵ Water quality-based effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations.

⁵⁶ The Regional Water Board calculated the baseline water quality-based effluent limitations for the Permittees based on the _____estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year.

⁵⁷ Permittees shall achieve their final effluent limitation of zero trash discharged for the year and every year thereafter. Attachment P –TMDLs in the San Gabriel River WMA

C. Los Angeles Area Lakes TMDLs⁵⁸ (USEPA established)

- 1. Legg Lake System Nutrient TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Flow (ac-ft/yr)	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
Northwestern	County of Los Angeles	33.5	53.6	148.7
Northwestern	South El Monte	308	526.3	1,500.6
Northeastern	El Monte	122	226.6	590.3
Northeastern	County of Los Angeles	8.18	12.8	39.2
Northeastern	South El Monte	287	498.7	1,394.8

Measured at the point of discharge. The mass-based allocations are equivalent to existing concentrations of 0.065 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.65 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- **d.** The following concentration-based WLAs shall apply during both wet and dry weather if:
 - i. The Regional Water Board Executive Officer approves a request by a Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - **ii.** Permittees shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target of 20 ug/L as a summer average (May-September) and an annual average is met, in the lake.
 - **iii.** If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

⁵⁸ Los Angeles Area Lakes TMDL includes multiple watershed management areas. Attachment P –TMDLs in the San Gabriel River WMA

Subwatershed	Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
Northwestern	County of Los Angeles	0.1	1.0
Northwestern	South El Monte	0.1	1.0
Northeastern	El Monte	0.1	1.0
Northeastern	County of Los Angeles	0.1	1.0
Northeastern	South El Monte	0.1	1.0

Measured as an in-lake concentration. Applied as a summer average (May-September) and an annual average.

- 2. Puddingstone Reservoir Nutrient TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Total Phosphorus (Ib-P/yr)	Total Nitrogen (Ib-N/yr)
Northern	Claremont	169	829
Northern	County of Los Angeles	741	3,390
Northern	La Verne	2,772	11,766
Northern	Pomona	6.30	28.3
Northern	San Dimas	31.1	137

Measured at the point of discharge. The mass-based allocations are equivalent to existing concentrations of 0.071 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.71 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- **d.** The following concentration-based WLAs shall apply during both wet and dry weather if:
 - i. The Regional Water Board Executive Officer approves a request by a Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - **ii.** Permittees shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved and the chlorophyll *a* target of 20 ug/L as a summer average (May-September) and an annual average is met, in the lake.
 - iii. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target is met, in the lake then the total

phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Subwatershed	Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
Northern	Claremont	0.1	1.0
Northern	County of Los Angeles	0.1	1.0
Northern	La Verne	0.1	1.0
Northern	Pomona	0.1	1.0
Northern	San Dimas	0.1	1.0

Measured as an in-lake concentration. Applied as a summer average (May-September) and an annual average.

- 3. Puddingstone Reservoir Mercury TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following WLAs during both wet and dry weather:

Subwatershed	Permittee	Total Mercury (g-Hg/yr)
Northern	Claremont	0.674
Northern	County of Los Angeles	2.79
Northern	La Verne	10.6
Northern	Pomona	0.026
Northern	San Dimas	0.109

Measured at the point of discharge.

- 4. Puddingstone Reservoir PCBs TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - **c.** Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight)	Total PCBs in the Water Column (ng/L)
Northern	Claremont	0.59	0.17
Northern	County of Los Angeles	0.59	0.17
Northern	La Verne	0.59	0.17
Northern	Pomona	0.59	0.17
Northern	San Dimas	0.59	0.17

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Total PCBs in the Water Column (ng/L) ^{****}
Northern	Claremont	59.8	0.17
Northern	County of Los Angeles	59.8	0.17
Northern	La Verne	59.8	0.17
Northern	Pomona	59.8	0.17
Northern	San Dimas	59.8	0.17

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

- 5. Puddingstone Reservoir Chlordane TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Permittee Total Chlordane associated with Suspended Sediment (ug/kg dry weight)		
Northern	Claremont	0.75	0.57	
Northern	County of Los Angeles	0.75	0.57	
Northern	La Verne	0.75	0.57	
Northern	Pomona	0.75	0.57	
Northern	San Dimas	0.75	0.57	

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	(ug/kg dry weight)	
Northern	Claremont	3.24	0.57
Northern	County of Los Angeles	3.24	0.57
Northern	La Verne	3.24	0.57
Northern	Pomona	3.24	0.57
Northern	San Dimas	3.24	0.57

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

- 6. Puddingstone Reservoir Dieldrin TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
 - c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight)	Dieldrin in the Water Column (ng/L)	
Northern	Claremont	0.22	0.14	
Northern	County of Los Angeles	0.22	0.14	
Northern	La Verne	0.22	0.14	
Northern	Pomona	0.22	0.14	
Northern	San Dimas	0.22	0.14	

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	Dieldrin in the Water Column (ng/L) ^{****}	
Northern	Claremont	1.90	0.14	
Northern	County of Los Angeles	1.90	0.14	
Northern	La Verne	1.90	0.14	



Northern	Pomona	1.90	0.14
Northern	San Dimas	1.90	0.14

*Measured at the point of discharge.

Applied as a three-year average. *Applied as an annual average.

- 7. Puddingstone Reservoir DDT TMDL
 - **a.** Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - **b.** Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (ug/kg dry weight)	4-4' DDT in the Water Column (ng/L)	
Northern	Claremont	3.94	0.59	
Northern	County of Los Angeles	3.94	0.59	
Northern	La Verne	3.94	0.59	
Northern	Pomona	3.94	0.59	
Northern San Dimas		3.94	0.59	

c. Permittees shall comply with the following WLAs:

Measured at the point of discharge. Applied as an annual average.

d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 21 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (ug/kg dry weight) ^{*,**}	4-4' DDT in the Water Column (ng/L) ^{****}	
Northern	Claremont	5.28	0.59	
Northern	County of Los Angeles	5.28	0.59	
Northern	La Verne	5.28	0.59	
Northern	Pomona	5.28	0.59	
Northern	San Dimas	5.28	0.59	

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

ATTACHMENT Q. TMDLs IN LOS CERRITOS CHANNEL AND ALAMITOS BAY WATERSHED MANAGEMENT AREA

A. Los Cerritos Channel Metals TMDL (USEPA established)

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-7.
- Permittees shall comply with the following dry weather⁵⁹ WLAs, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VI.E.3:

Constituent	WLA Daily Maximum (g/day)	
Copper	67.2	

3. Permittees shall comply with the following wet weather⁶⁰ WLA, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VI.E.3:

Constituent	WLA
Constituent	Daily Maximum (g/day)
Copper	4.709 x 10 ⁻⁶ x daily storm volume (L)
Lead	26.852 x 10 ⁻⁶ x daily storm volume (L)
Zinc	46.027 x 10 ⁻⁶ x daily storm volume (L)

B. Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-7.
- 2. Permittees shall comply with the following interim water quality-based effluent limitations as of the effective date of this Order, for sediments within Colorado Lagoon:

Constituent	Interim Concentration-based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	129.65
Dieldrin	26.20
Lead	399,500
Zinc	565,000
PAHs	4,022
PCBs	89.90
DDT	149.80

3. Permittees shall comply with the following final water quality-based effluent limitations no later than July 28, 2018, for sediments within Colorado Lagoon:

⁵⁹ Dry weather is defined as any day when the maximum daily flow in Los Cerritos Channel is less than 23 cubic feet per second (cfs) measured at Stearns Street Monitoring Station.

⁶⁰ Wet weather is defined as any day when the maximum daily flow in Los Cerritos Channel is equal to or greater than 23 cfs measured at Stearns Street Monitoring Station.

Attachment Q -TMDLs in the Los Cerritos Channel and Alamitos Bay WMA

Constituent	Final Concentration Based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	0.50
Dieldrin	0.02
Lead	46,700
Zinc	150,000
PAHs	4,022
PCBs	22.70
DDT	1.58

4. The mass-based water quality-based effluent limitations are shared by the MS4 Permittees, which includes the LACFCD, City of Long Beach and Caltrans. Permittees shall comply with the following grouped final water quality-based effluent limitations no later than July 28, 2018, expressed as an annual discharge of sediment to Colorado Lagoon:

Constituent	Annual Mass-based Effluent Limitations (mg/yr)				
Constituent	Project 452	Line I	Termino Ave	Line K	Line M
Chlordane	5.10	3.65	12.15	1.94	0.73
Dieldrin	0.20	0.15	0.49	0.08	0.03
Lead	476,646.68	340,455.99	1,134,867.12	181,573.76	68,116.09
Zinc	1,530,985.05	1,093,541.72	3,645,183.47	583,213.37	218,788.29
PAHs	41,050.81	29,321.50	97,739.52	15,637.89	5,866.44
PCBs	231.69	165.49	551.64	88.26	33.11
DDT	16.13	11.52	38.40	6.14	2.30

5. Compliance with the concentration-based water quality-based effluent limitations shall be determined by pollutant concentrations in the sediment in Colorado Lagoon at points in the West Arm, North Arm and Central Arm that represent the cumulative inputs from the MS4 drainage to the lagoon.

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ATTACHMENT R. TMDLs IN THE MIDDLE SANTA ANA RIVER WATERSHED MANAGEMENT AREA (SANTA ANA REGION TMDL)

A. Middle Santa Ana River Watershed Bacteria Indicator TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-8.
- 2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to San Antonio Creek during dry weather no later than December 31, 2015, and during wet weather no later than December 31, 2025:
 - **a.** Fecal coliform⁶¹: geometric mean less than 180 organisms/100 mL based on five or more samples during any 30-day period, and not more than 10% of the samples exceed 360 organisms/100 mL during any 30-day period.
 - **b.** *E. coli*: *E. coli*: geometric mean less than 113 organisms/100 mL based on five or more samples during any 30-day period, and not more than 10% of the samples exceed 212 organisms/100 mL during any 30-day period.
- **3.** Permittees shall comply with the following receiving water limitations for discharges to San Antonio Creek during dry weather no later than December 31, 2015, and during wet weather no later than December 31, 2025:
 - **a.** Fecal coliform⁶²: geometric mean less than 200 organisms/100 mL based on 5 samples during any 30-day period, and not more than 10% of the samples exceed 400 organisms/100 mL during any 30-day period.
 - **b.** *E. coli*: geometric mean less than 126 organisms/100 mL based on 5 samples during any 30-day period, and not more than 10% of the samples exceed 235 organisms/100 mL during any 30-day period.

⁶¹ The fecal coliform water quality-based effluent limitations become ineffective upon the replacement of the REC-1 fecal coliform water quality objectives with REC-1 *E. coli* water quality objectives in the Santa Ana Region Basin Plan.

⁶² The fecal coliform receiving water limitations become ineffective upon the replacement of the REC-1 fecal coliform water quality objectives with REC-1 *E. coli* water quality objectives in the Santa Ana Region Basin Plan.

Attachment R -TMDLs in the Middle Santa Ana River WMA

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September 6-7, 2012 (*last updated June 6, 2012*)

The following list constitutes the documents, references, evidence, exhibits and materials relied upon by Regional Water Board staff in drafting the Tentative Order that will be considered by the Regional Water Board on September 6-7, 2012. The list of documents identified here is without prejudice to the addition of further materials as may be necessary, or to respond to comments and testimony, or inquiries prior to or at the hearing. Documents may be inspected and/or copied from the files of the Regional Water Board pertaining to this matter by contacting Sandra Kelley, during business hours, at (213) 576-6619 or <u>skelley@waterboards.ca.gov</u>. Relevant portions of these materials will be present at the hearing. If there are any specific materials that any party would like staff to bring to the hearing, the party should identify the documents with specificity and by the deadline specified in the Notice of Public Hearing for this matter. The documents identified on this list, whether present at the hearing or not, will be incorporated into the administrative record.¹

<u>Section</u>	Item	<u>Page</u>
	Report of Waste Discharge, County of Los Angeles National Pollutant Discharge Elimination System Municipal Stormwater Permit Order 01-182	
	Report of Waste Discharge from LA County, DPW	
	Regional Board Letter addressed to Mark Pestrella,	
	Assistant Deputy Director	
	Report of Waste Discharge from City of Downey	
	Regional Board Letter addressed to Gerald Caton, City Manager	
	Section	Report of Waste Discharge, County of Los Angeles National Pollutant Discharge Elimination System Municipal Stormwater Permit Order 01-182 > Report of Waste Discharge from LA County, DPW > Regional Board Letter addressed to Mark Pestrella, Assistant Deputy Director > Report of Waste Discharge from City of Downey

¹ The Administrative Record is deemed to include all legal authorities be they constitutional, statutory, judicial, or regulatory (including precedential decisions of the State Water Resources Control Board and State Policy for Water Quality Control) that are applicable to this proceeding without regard to whether they are identified on this index or specifically referenced prior to or during the hearing.

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6/12/06		Report of Waste Discharge from City of Signal Hill	
7/12/06		Regional Board Letter addressed to Kenneth Farfsing,	
6/12/06		Group Report of Waste Discharge from:	
		➢ City of Azusa	
		➢ City of Glendora	
		➢ City of Whittier	
		➢ City of Claremont	
		➢ City of Irwindale	
7/12/06		Regional Board Letter addressed to Group	
11/24/10		Report of Waste Discharge from County of Los	
		Angeles	
9/13/11		➢ Regional Board Letter of Review to Gail Farber, Chief	
		Engineer, LA County	
		Stakeholder and Public Participation Meetings	
		Kick-Off Meeting on May 25, 2011	
4/8/11		Notice of Kick-Off Meeting	
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		• LAS MS4Permit: Reissuance Kick-off Meeting	

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		LA County MS4 Permit Structure -Print out of Survey Monkey	
11/7/11		LA MS4 Meeting/ LA Permit Group	
		Sign In Sheet	
		Proposed Flow Chart	
12/12/11		MS4 Permit Renewal Process Meeting with Staff from City of Los	
		Angeles, Watershed Protection Division and LARQWCB Staff	
		Meeting Agenda	
		➤ Handouts	
		Approaches to Incorporating TMDL WLAs into NPDES	
		Stormwater Permits	
		• Draft Talking Points for Development of the MS4 Permit	
		Strategy	
1/18/12		Meeting	
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1/19/12		MS4 Permit Meeting	
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1/19/12		County of Los Angeles- MS4 Renewal	
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		Handout: Draft Annotated Outline for the Watershed Plan	
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		Sign In Sheet	
4/25/12		Meeting: Los Angeles County- Wide Draft MS4 Permit	
		Sign In Sheet	
4/25/12		Meeting: Los Angeles County- Wide Draft MS4 Permit	
		Meeting Agenda	
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		Los Angeles County Flood Control District Proposal (LACFCD)	
		LACFCD Comments	
4/26/12		Meeting: Los Angeles County- Wide Draft MS4 Permit	
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		Contech letter: Comments on Staff Working Proposal – Los	
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		Suggested Changes Staff Working Proposal LA County	

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		State of the Watershed Reports:	
		• The Santa Clara River Watershed, November 2006	
		• The Santa Monica Bay Watershed Management Area (2 nd edition), November 2011	
		• Dominguez Channel and Los Angeles/ Long Beach Harbors	
		Watershed Management Area, October 2008	
		Watershed Management Initiative Chapter, December 2007	
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		LA MS4 Mandates Superior Court decision	
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		Court, Lead Case No. BS 080548, Related Cases: BS 080753, BS 080758, BS 080791, BS 080792, and BS 080807 (March 24, 2005)	
		 State Water Resources Control Board. Order No. WQ 99- 05. 	
		 United States Environmental Protection Agency. Establishing total maximum daily load (TMDL) wasteload allocations (WLAs) for storm water sources and NPDES permit requirements based on those WLAs. Office of Water. Memorandum to Water Division Directors Regions 1-10. November 22, 2002. 	

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		 United State Environmental Protection Agency. Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" Office of Water. Memorandum to Water Management Division Directors Regions 1-10. November 12, 2010. 	
		III. Discharge Prohibitions	
		 American Water Works Association – California - Nevada Section. Guidelines for the Development of Your Best Management Practices (BMP) Manual for Drinking Water System Releases. 2005. Awwa Research Foundation and USEPA. Environmental Impacts of Non-Treatment Discharges from Drinking Water Utilities. 2007. California Department of Forestry and Fire Protection – California State Fire Marshal. WATER-BASED FIRE PROTECTION SYSTEMS DISCHARGE BEST MANAGEMENT PRACTICES MANUAL. September 2011. CASQA. California Stormwater BMP Handbook – Municipal. Non-Stormwater Discharges (SC-10). 2003. City of Corona Fire Department et al. Best Management Practices Plan for Urban Runoff Management. May 1, 2004. City of El Segundo and USEPA. 2011. Municipal Separate Storm Sewer System (MS4) Compliance Inspection. Inspection Report. November 22, 2011 	

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		• City of LA. Best Management Practices – Swimming Pool, Spa, and Fountain Maintenance.	
		• City of Los Angeles Department of Water and Power. Pollution Prevention Plan for Water System Discharges. Wastewater Quality Compliance Group. 2008	
		• Culver City and USEPA. 2011. Municipal Separate Storm Sewer System (MS4) Compliance Inspection. Inspection Report. November 22, 2011	
		• Federal Register. Rules and Regulations. November 16, 1990.	
		Golden State Water Company. Water Pollution Control Program- Potable Water Distribution System Releases for Unincorporated Areas of Los Angeles County. June 2007	
		• Hagan, Catherine. Tentative Order No. R9-2010-0016, Regulation of Non-Storm Water Discharges, Consideration of Economics and Unfunded State Mandates. October 26, 2010.	
		• Los Angeles Regional Water Board. Resolution No. 98-08. Approving Best Management Practices for Municipal Storm Water and Urban Runoff Management Programs in Los Angeles County. [Need City of LA study cited is it in 2001 AR?]	
		• Los Angeles Water Board's Response to County of Los Angeles and Los Angeles County Flood Control District's (Collectively, "The County") Petition and Supplemental Statement (November 20, 2008).	

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		• Opposition Brief of Respondent State Water Resources Control Board and Respondent California Regional Water Quality Control Board, Los Angeles Region, to the County of Los Angeles' and Los Angeles County Flood Control District's Petition for Writ of Mandate. County of Los Angeles and Los Angeles County Flood Control District v. State Water Board; California Regional Water Board, Los Angeles Region. Case No. BS122724.	
		• PA Department of Health. Fact Sheet on Cyanuric Acid and Stabilized Chlorine Products.	
		• Pirarat, N. et al. The Pathological Effects of Melamine and Cyanuric Acid in the Diet of Walking Catfish (Clarius batrachus). J Comp Pathol. 2012 Feb 6.	
		 Statements of Decision in RE L.A. COUNTY MUNICIPAL STORM WATER PERMIT LITIGATION [Cities Of Arcadia, et al. v. RWQCB, LASC Case No. BS080548; City of Los Angeles v. RWQCB, LASC Case No. BS080753; County of Los Angeles v. RWQCB; LASC Case No. BS080758; City of Alhambra v. RWQCB, LASC Case No. BS080791; Los Angeles County EDC v. RWQCB, LASC Case No. BS080792; City of Monrovia, et al. v. RWQCB, LASC Case No. BS 080807] (March 25, 2005). 	
		• State Water Board. Attachment B – Special Protections for	

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		 Areas of Special Biological Significance, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges. March 16, 2012 version. State Water Board. Attachment B – Special Protections for Areas of Special Biological Significance, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges. Flow chart. USEPA. Model Ordinances to Protect Local Resources – Illicit Discharges. http://www.epa.gov/owow/NPS/ordinance/mo15.htm (accessed on 5/8/2012). 	
		 USEPA. Storm Water Management Fact Sheet – Non-Storm Water Discharges to Storm Sewers. EPA 832-F-99-022. September 1999. IV. Effluent Limitations and Discharge Specifications 	
		• Hagan, Catherine. Regulatory Authority for Imposing Numeric Effluent Limits on Dry Weather, Non-Storm Water Discharges, in Municipal Storm Water Permits. Memo to Chairman Wright and San Diego Regional Water Board Members. November 5, 2009.	
		V. Receiving Water Limitations	

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING UNINCORPORATED AREAS OF THE COUNTY OF LOS ANGELES AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITIES OF AVALON AND LONG BEACH (NPDES PERMIT NO. CAS004001)

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		VI. Provisions	
		A. Standard Provisions	
		• 40 CFR 122.26(d)	
		B. Monitoring and Reporting Program (MRP) Requirements	
		• Alteration of streamflow magnitudes and potential ecological consequences: a multiregional assessment. Carlisle D.M., Wolock, and Meador.	
		 Chapman, G.A., D.L. Denton, and J.M. Lazorchak, eds., Short- Termi Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. 1st ed. EPA/600/R-95-136. National Health and Ecological Effect Research Laboratory, Newport, Oregon, EPA Region IX, San Franceisco, CA, National Exposure Research Laboratory, Cincinnati, Ohio. 	
		• Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data, Gray et al., USGS	
		• Denton DL, Miller JM, Stuber RA. 2007. EPA Regions 8, 9 and 10 toxicity training tool (TTT). January 2010. San Francisco, CA. Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems	
		• Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems	

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		 Los Angeles Department of Public Works, Precipitation. http://dpw.lacounty.gov/wrd/Precip/index.cfmEffluents and Receiving Waters to Freshwater Organisms. 4th ed. EPA 821-R- 02-013. U.S. Environmental Protection Agency, Office of Water (4303T), Washington, D.C. NPDES MSGP NPDES Storm Water Sampling Guidance Document, EPA 833- 8-92-001. U.S. Environmental Protection Agency, Office of Water (EN 336). NPDES Storm Water Sampling Guidance Document. USEPA.1992. EPA 833-3-92-001. July 1992. Rapid Evaluation of Sediment Budgets. 2004. Stream Systems Technology Center. Stream Notes. April 2004. USEPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. 3rd ed. EPA-821-R-02-014. Ventura County MS4 Monitoring Program, Los Angeles Regional Water Quality Control Board 	
		C. Special Provisions: Watershed Management Programs	

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		 Hydromodification Effects on Flow Peaks and Durations in Southern California Urbanizing Watersheds; Robert J. Hawley, Brian P. Bledsoe, and Eric D. Stein 	
		• Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices ("LID") for Ventura County. Richard R. Horner	
		LID Credit Calculator speadsheet	
		• Memorandum to Tom Dalziel: Design of Integrated Management Practices Vertical Position of Underdrains in Bioretention Facilities Review and Interim Guidance; Dan Cloak, Dan Cloak Environmental Consulting	
		 Municipal Regional Stormwater NPDES Permit, Order No. R2- 2011-0083, NPDES Permit No. CAS612008, Amendment Revising Order No. R2-2009-0074; California Regional Water Quality Control Board San Francisco Bay Region 	
		• Riparian Buffer Guidebook, Protecting Streams and River Corridors, Creating Effective Local Riparian Buffer Ordinances. Seth J. Wenger and Laurie Fowler. Public Policy Research Series, Carl Vinson Institute of Government. The University of Georgia. 2000.	
		• Robert Pitt, National Stormwater Quality Database Version 3 (http://unix.eng.ua.edu/~rpitt/Research/ms4/mainms4.shtml, last visited May 15, 2012.)	

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		 Soil QualityUrban Technical Note No. 2. Urban Soil Compaction. United States Department of Agriculture, Natural Resources Conservation Service. March 2000. 	
		 South Orange County Hydromodification Management Plan. December 2011 	
		• Stormwater C.3 Guidebook, Stormwater Quality Requirements for Development Applications First Edition; Contra Costa Clean Water Program	
		• Stream fish occurrence in response to impervious cover, historic land use, and hydrogeomorphic factors. Wenger S.J., J.T. Peterson, M.C. Freeman, B.J. Freeman, and D.D. Homans.	
		• Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act, USEPA Office of Water	
		 USEPA Trash Clarification Letter dated April 10, 2008; Signed by Alexis Strauss, USEPA 	
		• Ventura County Technical Guidance Manual for Stormwater Quality Control Measures Manual Update 2011; Prepared by Larry Walker Associates and Geosyntec Consultants	
		• WERF, ASCE, USEPA, International Stormwater BMP Database (http://www.bmpdatabase.org/BMPPerformance.htm, last visited May 31, 2012)	

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		Chapter 2 Beneficial Uses approved by Regional Board on November 10, 2011	
		Chapter 7 Total Maximum Daily Loads approved by Regional Water Board on December 8, 2011	
		 Total Maximum Daily Loads BPAs not included in Chapter 7 as of December 8, 2011: Santa Monica Bay Nearshore and Offshore Debris TMDL, Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL Machado Lake Pesticides and PCBs TMDL Los Angeles River Watershed Bacteria TMDL Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL 	
		 Total Maximum Daily Loads Staff Reports: Total Maximum Daily Loads for Nitrogen Compounds and Related Effects in Los Angeles River and Tributaries, Revised July 10, 2003 Trash Total Maximum Daily Loads for the Ballona Creek and Wetland, January 16, 2004 Trash Total Maximum Daily Load for Lake Elizabeth, Munz 	

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		 Trash Total Maximum Daily Loads for the Los Angeles River Watershed, August 9, 2007 	
		• Trash Total Maximum Daily Load for the Malibu Creek	
		Watershed, February 14, 2008	
		• Santa Monica Bay Nearshore and Offshore Debris TMDL,	
		October 25, 2010	
		Ballona Creek Trash Calculations Spreadsheets	
		Santa Ana Region TMDL:	
		Middle Sana Ana River Watershed Waterbodies Bacterial	
		Indicatory TMDL (Resolution No. R8-2005-0001 and	
		Attachment to Resolution No. R8-2005-0001), August 26, 2005	
		USEPA TMDLs:	
		Malibu Creek Nutrients TMDL, March 21, 2002	
		• San Gabriel River Metals TMDL, March 26, 2007	
		• Los Cerritos Channel Metals TMDL, March 17, 2010	
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		• Public Review Period and Tentative Approval of Changes to the Santa Monica Bay Shoreline Monitoring Requirements Contained in the Monitoring and Reporting Program Under the Los Angeles County Municipal Storm Water Discharge Permit (NPDES NO. CAS004001) and the Santa Monica Bay Beaches Bacterial TMDLs	
		• Final Approval of Changes to the Santa Monica Bay Shoreline Monitoring Requirements Contained in the Monitoring and the Reporting Program Under the Los Angeles County Municipal Storm Water Discharge Permit (NPDES NO. CAS004001) to Conform to the Extent Possible with the Santa Monica Beaches Bacterial TMDLs	
		• Santa Monica Bay Beaches Bacteria TMDL Implementation Plans for Jurisdictional Groups 1 through 7 (2005)	
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		 United States Environmental Protection Agency. Establishing total maximum daily load (TMDL) wasteload allocations (WLAs) for storm water sources and NPDES permit requirements based on those WLAs. Office of Water. Memorandum to Water Division Directors Regions 1-10. November 22, 2002. 	

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		• United States Environmental Protection Agency. Interim permitting approach for water quality-based effluent limitations in storm water permits. EPA 833-D-96-001. Office of Water. 1996.	
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		F. Special Provisions: Miscellaneous Provisions	
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			 Data from the Los Angeles County Municipal Storm Water Permit (Order 01-182), Unified Annual Stormwater Report, 2010 – 2011, <u>http://ladpw.org/wmd/npdesrsa/annualreport/.</u> Data from the U.S. Census Bureau, 2010, <u>http://quickfacts.census.gov</u>. Accessed on 5/20/2012. Currier, Brian K., Joseph M. Jones, Glenn L. Moeller. "NPDES Stormwater Cost Survey, Final Report", Prepared for California State Water Resources Control Board, California State University Sacramento, Office of Water Programs, January, 2005. LARWQCB, 2004. "Alternative Approaches to Stormwater Quality Control". Included as Appendix H to Currier, Brian K., Joseph M. Jones, Glenn L. Moeller. "NPDES Stormwater Cost Survey, Final Report", Prepared for California State Water Resources Control Board, California State University Sacramento, Office of Water Programs, January, 2005. Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791. Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793. Haile, R.W., et al, 1996. "An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. 	

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		 Los Angeles Times, May 3, 2005. "Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick". 	
		• Southern California Association of Governments. "The State of the Region 2007 Measuring Regional Progress (Housing, Environment)". December 6, 2007.	
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		 Los Angeles and San Gabriel River Watershed Council. 2005. "Los Angeles Basin Water Augmentation Study Phase II Final Report". 	
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		<u>%20Santa%20Monica%20Urban%20Runoff%20Recycling%20</u> <u>Facility%20SMURFF.pdf</u> . Accessed on 5/22/2012.	

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 <u>http://www.sunvalleywatershed.org/watershed_management_plan/wmp-0ES.pdf</u>. Accessed on 5/22/2012. Los Angeles Water Quality Control Board Basin Plan. County of Los Angeles Department of Public Works, "County of Los Angeles County. BMP Effectiveness Study," August 	Date	Section	Item	Page
2005.			 <u>n/wmp-0ES.pdf</u>. Accessed on 5/22/2012. Los Angeles Water Quality Control Board Basin Plan. County of Los Angeles Department of Public Works, "County of Los Angeles County. BMP Effectiveness Study," August 	

All timely comment letters and evidence received by the Regional Board pertaining to this matter (when they become available)

Response to comments (when it becomes available)

Hearing transcript for the September 6-7, 2012 Regional Board meeting (when it becomes available), and any other Regional Board meetings during which consideration of this matter may take place

Speaker cards and other similar materials recording presence, participation, or testimony at the hearing (when they become available)

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MUNICIPAL STORM WATER AND URBAN RUNOFF DISCHARGES WITHIN THE COUNTY OF LOS ANGELES, AND THE INCORPORATED CITIES THEREIN, WASTE DISCHARGE REQUIREMENTS FOR **EXCEPT THE CITY OF LONG BEACH** NPDES PERMIT NO. CAS004001 **ORDER NO. 01-182**

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R000004	STORM001	2.	1/31/01	Report of Waste Discharge (ROWD) for Municipal Stormwater and Urban Runoff Discharges in the County of Los Angeles (ROWD+ 7 Plans)
R0000073	STORM001	3.	2/1/01	Watershed Management Area Plans (WMAP) prepared by the LA County Department of Public Works
R0000248	STORM001	4.	2/1/01	SQMP - Public Information and Participation Program - Industrial and Commercial Educational Program
R0000365	STORM001	5.	6/30/97	Stormwater Quality Management Plan (SQMP) - Public Information and Participation Program - Five-Year Education Plan
R0000420	STORM001	6.	2/1/01	SQMP - Development Construction Program
R0000626	STORM001	7.	2/1/01	SQMP - Illicit Connection and Illicit Discharge Elimination
R0000766	STORM001	8	2/1/01	SQMP - Development Planning Program
R0001037	STORM001	9.	2/1/01	SQMP - Public Agency Activities Program
R0001224	STORM001	10.	2/5/01	Fax from Carolina Trevizo to Dan Radulescu regarding submittal letters for ROWDs (County- wide and Santa Clara River Watershed) Attached list of permittees by watershed
R0001231	STORM001	11.	2/14/01	EAC Meeting - Agenda with presentation on permit comparison, faxed attendance from Carolina Trevizo, and 5 articles on permit requirements
R0001275	STORM001	12.	2/15/01	E-mail from Wendy Phillips to Mustafa Ariki on Proposed Renewal Schedule for LA County MS4

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R0001278	STORM001	14.	2/27/01	Inspection Program Issues Working Group Meeting - Agenda, notes from Dan Radulescu. and attendance
R0001282	STORM001	15.	2/28/01	IC/ID Working Group Meeting with agenda. attachment on exempted non-storm water discharges, and attendance from the meeting
R0001290	STORM001	16.	2/28/01	Transmittal Letter from Harry Stone and Rod Kubomoto to Laura Gentile about the ROWD for LA County
R0001291	STORM001	17.	3/1/01	Monitoring Working Group Meeting outline, notes, executive summary, program review, and attendance attachments
R0001332	STORM001	18.	3/2/01	Letter from Dennis Dickerson to Harry Stone regarding the Review of the ROWD. including municipal co-permittees list, summary of comments, and ROWD review and comments
R0001351	STORM001	19.	3/6/01	Email from Rufus Young (BWSLaw) to Dennis Dickerson regarding the Suggested ROWD Revisions
R0001369	STORM001	20.	3/12/01	PIPP Working Group Meeting agenda, attendance. meeting notes, school education attachment, and public education program attachment
R0001393	STORM001	21.	3/12/01	Letter from Harry Stone and Donald Wolfe to Dennis Dickerson regarding 2001 Stormwater Pollution Prevention Media Campaign
R0001395	STORM001	22.	3/14/01	EAC Meeting - Agenda, proposed renewal schedule, workshop registration. and Cigarette recycling article
R0001399	STORM001	23.	3/14/01	Issues from the meeting with the BIA, with copy of Richard Lambros business card
R0001401	STORM001	24.	3/14/01	Construction Program Working Group Meeting - Agenda and attendance
R0001404	STORM001	25.	3/15/01	Email from Xavier Swamikannu to Mustafa Ariki with parts 1-3 of the Preliminary Draft attached
R0001442	STORM001	26.	3/19/01	Email from Xavier Swamikannu to Megan Fisher regarding monitoring with an attached report on "Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data"
R0001462	STORM001	27.	3/20/01	Working Group to Address Industrial/Commercial Program Issues Agenda. attendance. key concept points
R0001467	STORM001	28.	3/20/01	Construction Program Working Group Meeting - Agenda, chart, and attendance
R0001470	STORM001	29.	3/21/01	Letter from Xavier Swamikannu to Permittees LA County regarding public workshop for the storm water permit renewal, with agenda attached

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R0001528	STORM001	31.	3/22/01	Letter form Desi Alvarez (EAC) to Alexis Strauss regarding her 12/19/00 letter to Dickerson
R0001530	STORM001	32.	3/23/01	Letter from David Spence, La Canada Flintridge Mayor, to Christine Whitman regarding local inspection recommendations
R0001532	STORM001	33.	3/29/01	Email form Eduardo Escobar with attached recommendations for the draft NPDES permit
R0001539	STORM001	34.	3/30/01	List of City of LA gas station permits issued from 1/1/99 and 12/31/00
R0001541	STORM001	35.	4/9/01	Monitoring Work Group Meeting Attendance sheet and points of discussion
R0001549	STORM001	36.	4/9/01	Email from Shelley Luce to Megan Fisher regarding tributary monitoring sites
R0001551	STORM001	37.	4/13/01	Letter from Xavier Swamikannu to Interested Parties (Permittees) regarding the First Draft of the NPDES Permit, list of permittees, proposed agenda for the April 24 th workshop, Staff
-				Keport and Draft attached
R0001684 & R0042863	STORM001 & STORM005	38.	4/13/01	Letter from Kenneth Farfsing, Coalition for Practical Regulation, to Dennis Dickerson regarding NPDES Workshop
				Agenda from Water Policy Task Force SCAG meeting with ROWD and comments
R0001686	STORM001	39.	4/17/01	attachment, permit and comparison presentations, watershed management article, Draft Regional/subregional Implementation program, and 2 articles from the Coalition for Practical Reform regarding the RSIP and proposed shift of to cities
R0001803	STORM001	40.	4/17/01	Email from Xavier Swamikannu regarding SCAG Committee Meeting
R0001804	STORM001	41.	4/19/01	Fax to Jorge Leon and Alex Mayer from Wendy Phillips regarding letter to Dennis Dickerson from the Coalition for Practical Reform (letter attached)
R0001807	STORM001	42.	4/19/01	Agenda from the Bay Watershed Council Meeting, with attendance, and attachments from Marianne Yamaguchi and Permit Reissuance presentation from Xavier Swamikannu
	-			Letter from Rutan & Tucker, Attorneys at Law, to Dennis Dickerson regarding the Draft
R0001828	STORM001	43.	4/20/01	NPDES permit, with attachments from 40 CFR, State Board Order WQ 2000 – 11, article on storm water discharge associated with industrial activity, 2 articles from the Coalition for
	· · ·		· · · · · ·	Practical Regulation, and the Draft RSIP
R0001887	STORM001	44	4/23/01	Letter from Wendy Phillips to Kenneth Farfsing regarding the Coalition for Practical Reform's comments on the April 24 th Workshop, with revised agenda attached
R0001891	STORM001	45.	4/23/01	Letter from Patrick F. West, City Manager, City of Paramount, to Dennis Dickerson regarding the limited time to review the NPDES Permit before the April 24 th Workshop
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R0001892	STORM001	46.	4/24/01	Public Workshop Agenda with CWA Amendment (WQA 1987). workshop presentation. and State Board Orders WQ 2000 – 11, WQ 99 - 05, WQ 98 – 01
R0001984	STORM001	47.	4/24/01	Letter from Honorable David Dreier to Christine Todd Whitman, USEPA Administrator
R0001985	STORM001	48.	4/24/01	Notes from the BIA meeting with Tim Piasky
	STORM001	49.	4/26/01	Letter from Wendy Phillips to Patrick West regarding comments to the April 24th workshop
	STORM001	50.	4/26/01	Email from Megan Fisher with agenda for April 27 th Monitoring Work Group Meeting
R0001989	STORM001	51.	4/27/01	Email from Megan Fisher to Dan Radulescu and Xavier Swannikannu regarding SNA map
R0001992	STORM001	52.	4/30/01	Email from Megan Fisher regarding the May 9 th Monitoring Work Group Meeting
		53.	4/30/01	Letter from Alexis Strauss. Director Water Division, USEPA Region 9 to Congressman Horn
R0001993	STORM001			regarding concerns from the CPR
		54.	5/1/01	Letter from David Fike, Director of Public Work, City of Monrovia. to Dennis Dickerson
R0001995	STORM001			regarding the limited time to review the NPDES Permit before the April 24 Workshop
K0001997	SI URMUU1	.00	10/7/0	Email from Don wolfe to J. Bishop regarding trash inotitioring
R0001998	STORM001	56.	5/8/01	Email from Megan Fisher with agenda for the 5/09 Monitoring Work Group Meeting
		./c	10/6/0	includes an email from TJ Kim to Megan Fisher regarding minimum detection limits with an
R0001999	STORM001		-	attachment of Bill Number SB 72 introduced by Senator Kuehl
R0002020	STORM001	58.	5/9/01	Email from Megan Fisher regarding the 5/30 tributary Monitoring Work Group Meeting
R0002021	STORM001	59.	5/9/01	Email from Megan Fisher regarding the tributary proposal
R0002022	STORM001	60.	5/10/01	Email from TJ Kim regarding chlorpyrifos water quality data from the tributary proposal
		61.	5/14/01	Email from Megan Fisher regarding 5/31 monitoring Work Group Meeting to discuss
R0002023	STORM001			questions prior to the second draft permit
R0002024	STORM001	62.	5/14/01	Fax from Dan Radulescu to Edward Schroeder, City of Signal Hill, with an attached copy of Board Resolution 98-08
		63.	5/15/01	Email from Megan Fisher regarding the cancellation notice of the May 31st Work Group
R0002032	STORM001			Meeting
		64.	5/16/01	Letter to James DeStefano, Interim City Manager - Diamond Bar, from Alexis Strauss. EPA
				Region IX Water Division Director, regarding comments on the letter concerning inspection
R0002033	STORM001	-		requirements in the LA MS4 draft permit
				LEGAL GROUPS & COALITIONS
		15	10/01/1	T William Wills - A consisting of One of More A consisting (A OWA) to Domin

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PAGE #	CD Vol.	ITEM.	DATE	DOCUMENT
				Dickerson regarding the possible negative impact of the SUSMP requirements in the LA MS4 permit could have on groundwater quality
	-	.99	5/17/01	Building Industry Association of Southern California comments on the first draft of LA MS4
R0002037	STORM001		•	permit
	-	67.	5/15/01	Letter from the law offices of Burke, Williams & Sorenson on behalf of the City of
R0002052	STORM001			Alhambra, with attached comments on the first draft.
		68.	5/16/01	Letter from Mark Smith, Charles Abbott Associates (CAA), to Dennis Dickerson, on behalf of
R0002065	STORM001			the cities of Bell , Hidden Hills , and Norwalk.
R0002071	STORM001	69.	5/16/01	Coalition for Practical Regulation (CPR) comments on the first draft of LA MS4 permit
		70.	4/26/01	Letter from Desi Alvarez, Chair Executive Advisory Committee (EAC), to David Nahai.
				Stating that the ROWD was a sufficient application for the NPDES Permit, and is
R0002092	STORM001			disappointed that the Board does not want to negotiate the next permit
R0002095	STORM001	71.	5/16/01	Executive Advisory Committee (EAC) comments on the first draft of LA MS4 permit
		72.	5/17/01	Richards, Watson & Gershon, Attorneys at Law is submitting comments on behalf of the
-				Cities of Agoura Hills, Carson, Artesia, Beverly Hills, Hidden Hills, Norwalk, La Mirada,
R0002105	STORM001			Mourovia, Raucho Palos Verdes, San Marino, San Fernando, and Westlake Village.
		73.	4/24/01	Rutan & Tucker, LLP representing a "Coalition" of cities comments on the first draft of LA
R0002115	STORM001			MS4 permit
R0002119	STORM001	74.	5/16/01	Rutan & Tucker, LLP representing CPR comments on the first draft of LA MS4 permit
				CITIES & LA COUNTY
R0002184	STORM001	75.	5/16/01	City of Arcadia comments to the first draft with specific comments attached.
R0002195	STORM001	76.	5/1-4/01	City of Baldwin Park comments to the first draft
R0002198	STORM001	77.	5/16/01	City of Bellflower comments to the first draft
R0002200	STORM001	78.	5/18/01	City of Bell Gardens comments to the first draft
R0002205	STORM001	, 79.	5/16/01	City of Burbank comments to the first draft
R0002209	STORM001	80.	5/1/01	City of Calabasas comments to the first draft
R0002216	STORM001	81.	5/16/01	City of Carson comments to the first draft
R0002226	STORM001	82.	5/16/01	City of Commerce comments to the first draft
R0002227	STORM001	.83.	5/16/01	City of Compton comments to the first draft
R0002230	STORM001	84.	5/3/01	City of Covina comments to the first draft
R0002233	STORM001	85.	5/16/01	City of Cudahy comments to the first draft
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STORM001 114. 5/16/01 STORM001 115. 4/3/01	PAGE # R0002239 R0002248 R0002248 R0002259 R0002266 R0002266 R0002260 R0002261 R0002261 R0002261 R0002261 R0002261 R0002361 R0002361 R0002361 R0002361 R0002361 R0002361 R0002366 R0002361 R0002366 R0002378 R0002378 R0002378 R0002370 R0002270 R0002370 R0002270 R000270000270000270 R000270000000000	CD Vol. STORM001 STORM001	ITEM 86. 88. 87. 88. 89. 99. 91. 92. 92. 92. 94. 94. 94. 94. 94. 94. 95. 94. 94. 94. 97. 97. 97. 97. 97. 97. 97. 97. 97. 97	DATE 5/15/01 5/16/01 5	DOCUMENT City of Diamond Bar comments to the first draft City of Glendale comments to the first draft City of Hawaiian Gardens comments to the first draft City of Hawaiian Gardens comments to the first draft City of Lakewood comments to the first draft City of Los Angeles comments to the first draft City of Manywood comments to the first draft City of Manywood comments to the first draft City of Monthere Park comments to the first draft City of Monthere Park comments to the first draft City of Monthere Park comments to the first draft City of Ponona comments to the first draft City of Ponona comments to the first draft City of Ponona comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rancho Palos Verdes comments to the first draft City of Rosenead additional comments to the first draft City of San Marino comments to the first draft City of South Cate comments to the first draft City of Yennenest to the first draft City of Yennenest to the first draft
STORM001 115. 4/3/01	125	STORM001	114.	5/16/01	Los Angeles County Department of Public Works comments to the first draft ENVIRONMENTAL GROUPS
	528	STORM001	115.	4/3/01	Heal the Bay comments regarding Monitoring and Reporting Requirements in the first draft

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DOCUMENT	Heal the Bay additional comments on the first draft	NRDC comments on the first draft	Santa Monica Baykeeper comments on the first draft	OTHER GROUPS	Western States Petroleum Association (WSPA), with comments regarding RGOs and first	draft	Ballona Creek/Santa Monica Bay Watershed cities comments on the first draft	NEST Environmental Services comments on the first draft	LA County Sanitation Districts comments on the first draft	END OF COMMENT LETTERS on first draft	Independent Cities Association (ICA) request for LA MS4 negotiation process	Letter from James Noyes and Rod Kubomoto from LA County Department of Public Works regarding the ROWD withdrawal for the Santa Clara River Watershed	Letter from Dennis Dickerson to David Fike, Monrovia Director of Public Works. responding to comments made about the 4/24 workshop and permit review schedule	Email from Megan Fisher to TJ Kim regarding monitoring changes, with an attached outline of significant changes to the Monitoring Program	Letter from Larry Forester, CPR to Dickerson regarding joint request for LA Storm Water Permit Facilitator	Letter from Dan Radulescu to Ann Wessel, Stormwater Permit Manager, requesting information on RGOs in Washington and Seattle	Letter from Dan Radulescu to Kelly Hendrix, Water Pollution Control Lab, requesting information on RGOs in Oregon and Portland	Notes and attendance from Regional Board meeting with Tim Piasky, BIA.	Letter from Tracy Patterson regarding Bioassessment in LA County Storm Water Permit	Email from Mark Gold to Megan Fisher regarding 6/4 monitoring Work Group Meeting agenda	Letter from James Noyes and Donald Wolfe, LA County Department of Public Works, to Dennis Dickerson regarding proposed addition of shoreline monitoring program to NPDES	Monitoring Work Group Meeting - Agenda, attendance, presentation slides, and attached General Workplan for Wet Weather Modeling of the LA River and Santa Monica Bay	
DATE	5/16/01	5/16/01	5/15/01		6/15/01)	5/15/01	5/16/01	5/15/01	END	5/16/01	5/17/01	5/18/01	5/23/01	5/23/01	5/24/01	5/24/01	5/24/01		5/31/01	6/4/01	6/4/01	
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				Watersheds
R0002811	STORM001	135.	6/4/01	Letter from Melinda Marks, Chair of California Stormwater Quality Task Force, to Dennis Dickerson regarding support for stakeholder consensus-building process
R0002813	STORM001	136.	6/5/01	Email from John Dorsey to Megan Fisher regarding shoreline monitoring
R0002814	STORM001	137.	6/7/01	NPDES presentation by Wendy Phillips at the City and County Engineers Meeting
R0002818	STORM001	138.	6/7/01	Email from Megan Fisher to Carolina Trevizo regarding Santa Clara station
R0002819	STORM001	139.	6/8/01	Email from Megan Fisher to Carolina Trevizo regarding 6/8 Monitoring Draft
R0002839	STORM001	140.	10/11/9	Letter form Larry Forester, CPR, to Dennis Dickerson regarding request for facilitative review process
R0002847	STORM001	141.	6/12/01	Email from Megan Fisher to C. Trevizo regarding 6/25 Monitoring Work Group Meeting
R0002849	STORM001	142.	6/13/01	Fax from Southern California Association of Governments to Xavier Swamikannu regarding percentage of land use in LA County
R0002855	STORM001	143.	6/15/01	Letter from Heal the Bay regarding preliminary revised draft of the monitoring and reporting requirements
R0002856	STORM001	144.	6/12/01	Letter from Dennis Dickerson to Donald Wolfe, County of LA Department of Public Works.
-		-	1	regarding working with local agencies to address storm water issues at industrial sites
R0002863	STORM001	145.	6/18/01	Email from Ann Wessel to Dan Radulescu regarding information on BMPs for gas stations
R0002867	STORM001	146.	6/18/01	Memo from Water Pollution Control Lab, City of Portland. to Dan Radulescu regarding retail gasoline outlets
R0002879	STORM001	147.	6/19/01	Email from John Dorsey to Megan Fisher regarding shoreline comments
R0002882	STORM001	148.	6/25/01	Monitoring Work Group Meeting - Attendance, agenda, and notes 6-25-01
R0002897	STORM001	149.	6/26/01	Email from TJ Kim to Megan Fisher regarding 6/25 Work Group Meeting
R0002900	STORM001	150.	6/29/01	Announcement of Storm Water Workshop with attached copy of Second Draft Permit
R0003124	STORM001	151.	6/29/01	Letter from James Langley (for Judith Wilson) to Dennis Dickerson regarding additional review comments on first draft.
R0003161	STORM001	152.	7/3/01	Attendance from meeting with BIA
R0003162	STORM001	153.	10/6/L	Attendance from Special Executive Advisory Committee Meeting
R0003165	STORM001	154.	10/11/2	Public notice of 7/26/01 Workshop for LA MS4 permit to print in LA Times
-		1	-	Letter from Christine Todd Whitman, USEPA Administrator. to Congressman David Dreier
R0003168	STORM001	155.	7/12/01	regarding enforcement of stormwater pollution controls at industrial and commercial sites in
				municipal stormwater permits

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DOCUMENT	Attendance from EAC-RB staff Meeting	Attendance from Environmental Groups – RB staff Meeting	Letter from David Fike, City of Monrovia, to Dennis Dickerson regarding the NPDES 2 nd Draft Workshop	Attendance from the WSPA-RB staff Meeting	Public Meeting/Workshop 444 th Regular Board Meeting – agenda and attached documents (continued in volume 8)	Public Meeting/Workshop 444 th Regular Board Meeting – agenda and attached documents	Public Meeting/Workshop 444 th Regular Board Meeting – Transcript of proceedings	CITIES & LA COUNTY	City of Arcadia comments to the second draft	City of Baldwin Park comments to the second draft	City of Burbank comments to the second draft	City of Calabasas comments to the second draft	City of Carson comments to the second	City of Cerritos comments to the second draft	City of Claremont comments to the second draft	City of Compton comments to the second draft	City of Covina comments to the second draft	City of Culver City comments to the second draft	City of Diamond Bar comments to the second draft	City of Duarte comments to the second draft	City of Hawthorne comments to the second draft	City of Industry comments to the second draft	City of lrwindale comments to the second draft	City of Lakewood comments to the second draft	City of Lakewood comments to the second draft	City of La Mirada comments to the second draft	City of Los Angeles comments to the second draft	City of Monrovia comments to the second draft	City of Montebello comments to the second draft	
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R0004534	STORM001	183.	8/1/01	City of Norwalk comments to the second draft
R0004538	STORM001	184.	8/6/01	City of Paramount comments to the second draft
R0004540	STORM001	185.	8/6/01	City of Pico Rivera comments to the second draft
.R0004543	STORM001	186.	8/2/01	City of Santa Clarita comments to the second draft
R0004548	STORM001	187.	8/8/01	City of Santa Fe Springs comments to the second draft
R0004552	STORM001	188.	8/2/01	City of San Gabriel comments to the second draft
R0004562	STORM001	189.	8/3/01	City of San Gabriel comments to the second draft
R0004565	STORM001	190.	8/3/01	City of San Marino comments to the second draft
R0004575	STORM001	191.	8/2/01	City of South Pasadena comments to the second draft
R0004578	STORM001	192.	8/6/01	City of Temple City comments to the second draft
R0004583	STORM001	193.	8/2/01	City of Vernon comments to the second draft
R0004586	STORM001	194.	8/3/01	City of Whittier comments to the second draft
R0004596	STORM001	195.	7/25/01	County of Los Angeles Fire Department comments to the second draft
R0004597	STORM001	196.	8/6/01	County of Los Angeles Dept. of Public Works comments to the second draft with comments made in color on the draft permit.
				LEGAL GROUPS & COALITIONS
R0004699	STORM001	197	10/61/L	Law Offices Burke, Williams & Sorensen, LLP comments to the second draft on behalf of the
0000				cities of Alhambra, Compton, El Segundo, Lomita, Santa Clarita, and Torrance
R0004719	STORM001	198.	8/6/01	Law Offices Burke, Williams & Sorensen, LLP additional comments to the second draft on behalf of the cities of Alhambra, Compton, El Segundo, Lomita, Santa Clarita, and
				LOITAIICE
R0004727	STORM001	199.	8/6/01	Law Offices Burke, Williams & Sorensen, LLP comments to the second draft on behalf of the cities of Camarillo and Moorpark
				Law Offices Burke, Williams & Sorensen, LLP comments to the second draft on behalf of the
R0004737	STORM001	200.	8/8/01	cities of Alhambra, Compton, El Segundo, Lomita, Santa Clarita, and Torrance (first
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B0004780	STORMON'	202	10/9/8	otities of Around Hills Corson Artesia Reverby Hills Hidden Hills Normally I a Miroda
				Monrovia, Rancho Palos Verdes, San Marino, San Fernando and Westlake Village.
R0004797	STORM001 203	203.	8/6/01	Charles Abbott Associates (CAA), on behalf of the cities of Bell, Hidden Hills, and Norwalk

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	DOCUMENT	Coalition for Practical Regulation comments to the second draft	Construction Industry Coalition on Water Quality (CICWQ) comments to the second draft	Executive Advisory Committee (EAC) - comments to the second draft	ENVIRONMENTAL GROUPS	Heal the Bay comments to the second draft	NRDC comments to the second draft	Santa Monica BayKeeper comments to the second draft	OTHER GROUPS	Bull Shot Systems Inc comments to the second draft	California Coastal Commission comments to the second draft	California Regional Water Quality Control Board – Raymond Jay, Nonpoint Source Unit,	Collification Volume Comments to the accord duality	Central Basin Water Association (CBWA) – comments to the second draft	County Sanitation Districts of Los Angeles County comments to the second draft	National Association of Industrial and Office Properties (NAIOP) SoCal Chapter – comments to the second draft	Southern California Water Company comments to the second draft	South Montebello Irrigation District – comments to the second draft	State of California Department of Health Services comments to the second draft	Upper Los Angeles River Area Watermaster comments to the second draft	Water Replenishment District of Southern California (WRD) comments to the second draft	Western States Petroleum Association (WSPA) comments to the second draft	END OF COMMENT LETTERS	Letter from Xavier Swamikannu to Melinda Marks regarding BMP Guide for RGOs.	Letter from EAC to Dennis Dickerson regarding stakeholder involvement in preparation of NPDES order	Attendance and outline for LA County MS4 Peak Discharge Study Work Group Meeting	Agenda for the Malibu Creek Watershed Advisory Council Meeting. Resource Conservation	District of the Santa Monica Mountains – with attached presentation of Municipal Storm Water Permit	
	DATE	8/6/01		8/6/01		8/6/01	8/6/01	8/6/01		7/30/01	7/25/01	8/6/01	10/10/1		8/6/01		10/9/8	8/6/01	8/6/01	1/27/01	8/6/01	8/6/01		8/20/01	8/22/01	8/23/01		9/4/01	
•	ITEM	204.	205.	206.		207.	208.	209.		210.	211.	212.		214	215.	216.	217.	218.	219.	220.	221.	222.		223.	224.	225.		226.	-
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STORM001 230. 9/20/01 STORM001 231. 9/21/01 STORM001 233. 9/24/01 STORM001 233. 9/27/01 STORM001 233. 9/27/01 STORM001 234. 9/27/01 STORM001 234. 9/27/01 STORM001 235. 9/28/01 STORM001 235. 9/28/01 STORM001 235. 10/9/01 STORM001 236. 10/1/01 STORM001 237. 10/17/01 STORM001 240. 10/17/01 STORM001 241. 10/13/01 STORM001 241. 10/13/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/1/9/01 STORM001 245. <td>R0005014 R0005015</td> <td>STORM001 STORM001</td> <td>228. 229.</td> <td>9/13/01 9/20/01</td> <td>Email from Xavier Swamikannu to Betsy Jennings regarding SUDMPS provisions Letter from Dennis Dickerson to David Fike regarding the municipal storm water permit</td>	R0005014 R0005015	STORM001 STORM001	228. 229.	9/13/01 9/20/01	Email from Xavier Swamikannu to Betsy Jennings regarding SUDMPS provisions Letter from Dennis Dickerson to David Fike regarding the municipal storm water permit
STORM001 231. 9/21/01 STORM001 232. 9/24/01 STORM001 233. 9/27/01 STORM001 233. 9/27/01 STORM001 234. 9/27/01 STORM001 235. 9/28/01 STORM001 234. 9/27/01 STORM001 235. 9/28/01 STORM001 235. 10/3/01 STORM001 236. 10/9/01 STORM001 237. 10/9/01 STORM001 234. 10/11/01 STORM001 240. 10/11/01 STORM001 241. 10/3/01 STORM001 242. 11/6/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 246. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. </td <td>R0005016</td> <td>STORM001</td> <td>230.</td> <td>9/20/01</td> <td>Email from Stan Ciuba to Xavier Swamikannu regarding questions on gas stations</td>	R0005016	STORM001	230.	9/20/01	Email from Stan Ciuba to Xavier Swamikannu regarding questions on gas stations
STORM001 232. 9/24/01 STORM001 233. 9/27/01 STORM001 234. 9/27/01 STORM001 235. 9/27/01 STORM001 235. 9/27/01 STORM001 235. 9/27/01 STORM001 235. 9/28/01 STORM001 235. 10/9/01 STORM001 237. 10/9/01 STORM001 239. 10/17/01 STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 241. 10/17/01 STORM001 244. 11/6/01 STORM001 244. 11/6/01 STORM001 244. 11/3/01 STORM001 244. 11/3/01 STORM001 244. 11/3/01 STORM001 244. 11/3/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250.<	R0005018	STORM001	231.	9/21/01	Analytes and Detection Limit Issues (Agenda items 5-6). From Storm water Monitoring Work Group Meeting with Long Beach.
STORM001 233. 9/27/01 STORM001 234. 9/27/01 STORM001 235. 9/28/01 STORM001 235. 9/28/01 STORM001 235. 9/28/01 STORM001 235. 9/28/01 STORM001 235. 10/9/01 STORM001 238. 10/9/01 STORM001 239. 10/17/01 STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 241. 10/17/01 STORM001 241. 10/30/01 STORM001 243. 11/6/01 STORM001 244. 11/3/01 STORM001 244. 11/3/01 STORM001 245. 11/3/01 STORM001 245. 11/3/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/113/01 STORM001 25	R0005040	STORM001	. 232.	9/24/0I	Letter from Dennis Dickerson to Don Wolfe regarding municipal storm water permit
STORM001 234. 9/27/01 STORM001 235. 9/28/01 STORM001 236. 10/3/01 STORM001 236. 10/9/01 STORM001 237. 10/9/01 STORM001 238. 10/1/01 STORM001 239. 10/11/01 STORM001 240. 10/11/01 STORM001 241. 10/30/01 STORM001 242. 11/6/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 246. 11/13/01 STORM001 246. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001	R0005042	STORM001	233.	9/27/01	Attendance form BIA meeting with Agenda
STORM001 235. 9/28/01 STORM001 236. 10/3/01 STORM001 237. 10/9/01 STORM001 237. 10/9/01 STORM001 239. 10/17/01 STORM001 239. 10/17/01 STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 241. 10/30/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/3/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 25	R0005044	STORM001	234.	9/27/01	LA County MS4 Public Education Program Work Group Meeting, with attendance, agenda. and LA County Public Education Program slides
STORM001 236. 10/3/01 STORM001 237. 10/9/01 STORM001 238. 10/9/01 STORM001 238. 10/1/01 STORM001 239. 10/17/01 STORM001 240. 10/17/01 STORM001 241. 10/17/01 STORM001 241. 10/17/01 STORM001 241. 10/17/01 STORM001 243. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/13/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/113/01	R0005053	STORM001	235.	9/28/01	Email from Tim Piasky to Dennis Dickerson regarding concerns with LA permit
STORM001 237. 10/9/01 STORM001 238. 10/1/01 STORM001 239. 10/1/01 STORM001 240. 10/1/01 STORM001 241. 10/30/01 STORM001 241. 10/30/01 STORM001 241. 10/30/01 STORM001 243. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/3/01 STORM001 244. 11/1/01 STORM001 244. 11/3/01 STORM001 244. 11/3/01 STORM001 245. 11/13/01 STORM001 245. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/14/01 STORM001 251. 11/13/01 STORM001 251. 11/13/01 STORM001 251. 11/13/01	R0005055	STORM001	236.	10/3/01	Restaurant Inspection Work Group Meeting LA County DHS - Attendance, notes, handouts
STORM001 238. 10/9/01 STORM001 239. 10/11/01 STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 241. 10/30/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 245. 11/101 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/3/01 STORM001 245. 11/13/01 STORM001 246. 11/13/01 STORM001 246. 11/13/01 STORM001 247. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 251. 11/13/01	R0005069	STORM001	237.	10/9/01	Letter from Judith Wilson to Dennis Dickerson requesting 10-day extension to submit comments on 3 rd draft permit
STORM001 239. 10/11/01 STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 241. 10/30/01 STORM001 243. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/1/01 STORM001 245. 11/1/01 STORM001 245. 11/1/3/01 STORM001 246. 11/1/3/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 251. 11/13/01	R0005071	STORM001	238.	10/9/01	Announcement for MSA LA & Orange Area Chapter General Meeting
STORM001 240. 10/17/01 STORM001 241. 10/30/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/3/01 STORM001 245. 11/13/01 STORM001 246. 11/13/01 STORM001 247. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01	R0005072	STORM001	239.	10/11/01	Announcement of Public Hearing and Transmittal of the Tentative Draft LA MS4 permit
STORM001 241. 10/30/01 STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/9/01 STORM001 244. 11/3/01 STORM001 246. 11/13/01 STORM001 246. 11/13/01 STORM001 246. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01	R0005339	STORM001	240.	10/11/01	Email from Carlos Santos to Wendy Phillips regarding reporting format
STORM001 242. 11/6/01 STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/1/01 STORM001 246. 11/1/01 STORM001 246. 11/1/3/01 STORM001 246. 11/13/01 STORM001 247. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01	R0005344	STORM001	241.	10/30/01	Fax from Joyce Clark to Carlos Urrunaga regarding debromination. and its inapplicability to drinking water.
STORM001 243. 11/6/01 STORM001 244. 11/9/01 STORM001 245. 11/1/01 STORM001 246. 11/1/01 STORM001 246. 11/1/01 STORM001 246. 11/1/3/01 STORM001 246. 11/13/01 STORM001 247. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01 STORM001 250. 11/13/01	R0005348	STORM001	242.	11/6/01	Change of location of public hearing for tentative draft of NPDES permit to 11/29/01
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STORM001 245. 11/1/01 STORM001 246. 11/13/01 STORM001 246. 11/13/01 STORM001 248. 11/13/01 STORM001 248. 11/13/01 STORM001 249. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/13/01 STORM001 251. 11/13/01	R0005351	STORM001	244.	11/9/01	Agenda for mediated discussion of inspection/enforcement permit language with handouts
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STORM001 248. 11/13/01 STORM001 249. 11/13/01 STORM001 250. 11/14/01 STORM001 251. 11/15/01 STORM001 252. 11/13/01	R0005441	STORM001	247.	11/13/01	City of Bell Gardens - comments to tentative draft
STORM001 249. 11/13/01 STORM001 250. 11/14/01 STORM001 251. 11/15/01 STORM001 252. 11/13/01	R0005447	STORM001		11/13/01	City of Burbank - comments to tentative draft
STORM001 250. 11/14/01 STORM001 251. 11/15/01 STORM001 252. 11/13/01	R0005449	STORM001	249.	11/13/01	City of Carson - comments to tentative draft
STORM001 251. 11/15/01 STORM001 252. 11/13/01	R0005456	STORM001	250.	11/14/01	City of Claremont - comments to tentative draft
STORM001 252. 11/13/01	R0005457	STORM001		11/15/01	City of Covina - comments to tentative draft
	R0005462	STORM001	252.	11/13/01	City of Cudaly - comments to tentative draft

		DOCUMENT	- comments to tentative draft	City of Diamond Bar - comments to tentative draft	City of Gardena - comments to tentative draft	City of Hawaiian Gardens - comments to tentative draft	City of La Canada Flintridge - comments to tentative draft	City of Lakewood - comments to tentative draft	City of Los Angeles - comments to tentative draft	City of Lynwood - comments to tentative draft	City of Manhattan Beach - comments to tentative draft	City of Monrovia - comments to tentative draft	City of Paramount - comments to tentative draft	City of Pasadena - comments to tentative draft	City of Pomona - comments to tentative draft	City of Rosemead - comments to tentative draft	City of Rancho Palos Verdes- comments to tentative draft	City of Rancho Palos Verdes- additional comments to tentative draft	City of Redondo Beach - comments to tentative draft	City of Santa Clarita - comments to tentative draft	City of Santa Fe Springs - comments to tentative draft	City of San Gabriel - comments to tentative draft	City of San Marino - comments to tentative draft	City of Signal Hill - comments to tentative draft Included two reports: "Financial and	Economic Impacts of Storm Water Treatment – Los Angeles County NPDES Permit Area"	and "Assessing the TMDL Approach to Water Quality Management"	City of Sierra Madre - comments to tentative draft	City of South El Monte - comments to tentative draft	City of South Gate - comments to tentative draft	City of Vernon - comments to tentative draft	City of West Hollywood - comments to tentative draft	County of Los Angeles - comments to tentative draft Included summary of comments and 2 copies of comments marked on the draft	
•			City of Culver City -	City of Diamond Bar	City of Gardena - cor	City of Hawaiian Gau	City of La Canada Fl	City of Lakewood - c	City of Los Angeles	City of Lynwood - cc	City of Manhattan Be	City of Monrovia - co	City of Paramount - c	City of Pasadena - co	City of Pomona - cor	City of Rosemead - c	City of Rancho Palos	City of Rancho Palos	City of Redondo Bea	City of Santa Clarita.	City of Santa Fe Spri	City of San Gabriel -	City of San Marino -	City of Signal Hill - o	Economic Impacts of	and "Assessing the T	City of Sierra Madre	City of South El Mor	City of South Gate -	City of Vernon - con	City of West Hollyw	County of Los Angeles - comments to te copies of comments marked on the draft	
		DATE	11/13/01	11/13/01	11/13/01	11/13/01	11/13/01	11/13/01	10/6/11	10/6/11	11/14/01	11/14/01	11/13/01	11/13/01	11/13/01	11/13/01	11/15/01	11/12/01	11/13/01	11/13/01	11/13/01	11/14/01	11/8/01		11/13/01		11/14/01	11/7/01	11/8/01	11/13/01	10/6/11	11/13/01	
		ITEM	253.	254.	255.	256.	257.	258.	259.	260.	261.	262.	263.	264.	265.	266.	267.	268.	-269.	270.	271.	272.	273.	۰.	274.		275.	276.	277.	278.	279.	280.	
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•	•	PAGE #	R0005468	R0005474	R0005479	R0005480	R0005486	R0005492	R0005499	R0005561	R0005563	R0005565	R0005573	R0005579	R0005585	R0005587	R0005593	R0005596	R0005600	R0005603	R0005609	R0005611	R0005618		R0005625	-	R0005752	R0005754	R0005761	R0005768	R0005775	R0005781	

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			•	LEGAL GROUPS & COALITIONS
ששטשטעיטים			10/9/11	Law Offices Burke, Williams & Sorensen, LLP - comments to tentative on behalf of the LAEDC, Cities of Alhambra, Camarillo, Compton, El Segundo, Industry, Lawndale, Lomita, Moorpark, Santa Clarita, and Torrance. Included three reports. "SCAG Staff
CONONNY			10/0/11	Report: Regional Solutions for Managing Stormwater Pollution", "Financial and Economic Impacts of Storm Water Treatment – Los Angeles County NPDES Permit Area", "Cost of Storm Water Treatment for the Los Angeles County NPDES Permit Area"
R0006190	STORM001	282.	11/9/01	Law Offices Burke, Williams & Sorensen, LLP - comments to tentative draft submitted report "Cost of Storm Water Treatment for California Urbanized Areas." On behalf of the cities of Alhambra, Camarillo, Compton, El Segundo, Industry, Lawndale, Lomita, Moorpark, Sonta Clarita and Lorrance and LAEDC
R0006449	STORM001	283.	11/13/01	Law Offices Burke, Williams & Sorensen, LLP - comments to tentative on behalf of the LAEDC, Cities of Alhambra, Camarillo, Compton, El Segundo, Industry, Lawndale, Lomita, Moorpark, Santa Clarita, and Torrance.
R0006471	STORM001	284.	11/14/01	Charles Abbott Associates (CAA) comments to tentative draft on behalf of the cities of Bell , Hidden Hills , and Norwalk
R0006483	STORM001	285.	11/13/01	Richards, Watson & Gershon, Attorneys at Law - comments to tentative draft Submitted letter and comments on behalf of the cities of Agoura Hills, Carson, Artesia, Beverly Hills, Hidden Hills, Norwalk, La Mirada, Monrovia, Rancho Palos Verdes, San Marino, San Fernando and Westlake Village
R006496	STORM001	286.	11/19/01	Rjchards, Watson & Gershon. Attorneys at Law – revised comments to tentative draft Submitted letter and comments on behalf of the cities of Agoura Hills, Carson, Artesia, Beverly Hills, Hidden Hills, Norwalk, La Mirada, Monrovia, Rancho Palos Verdes, San Marino, San Fernando and Westlake Village
R0006509	STORM001	287.	11/13/01	Rutan & Tucker, Attorneys at Law - comments to tentative draft on behalf of Signal Hill and members of CPR.
R0006545	STORM001	288.	11/13/01	Construction Industry Coalition on Water Quality (CICWQ) - comments to tentative draft Evacutive Advisory Committee (FAC) - comments to tentative draft
R0006555	STORM001	290.	10/6/11	Ballona Creek/Santa Monica Watershed - comments to tentative draft
				ENVIRONMENTAL GROUPS
R0006562	STORM001	291.	11/15/01	Heal the Bay – comments to tentative draft

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R0006571	STORM001	292.	11/14/01	NRDC - comments to tentative draft
R0006575	STORM001	293.	11/13/01	UCLA Environmental Law Clinic - comments to tentative draft submitted on behalf of the Santa Monica BayKeeper.
		<u> </u>		OTHER GROUPS
R0006591	STORM001	294.	11/13/01	County of Los Angeles Department of Health Services Public Health - comments to tentative draft concerning restaurant inspections
R0006593	STORM001	295.	11/13/01	County Sanitation Districts of Los Angeles County - comments to tentative draft
R0006595	STORM001	296.	10/6/11	Metropolitan Water District of Southern California (MWD) - comments to tentative draft
R0006599	STORM001	297.	11/12/01	Southern California Water Company - comments to tentative draft
R0006601	STORM001	298.	11/14/01	Upper Los Angeles River Area Watermaster - comments to tentative draft Melvin L. Blevins, ULARA Watermaster.
R0006603	STORM001	299.	11/13/01	Western States Petroleum Association - comments to tentative draft
			•	END OF COMMENT LETTERS
R0006611	STORM001	300.	10/61/11	Monitoring Work Group Meeting – Agenda, notes
R0006614	STORM001	301.	11/20/01	Email from Steve Bay to Megan Fisher regarding LA County toxicity language, with suggested changes attached
R0006619	STORM001	302.	11/14/01	Letter from CPR Steering Committee to Dennis Dickerson regarding completion request for NPDES Permit item on 11/29/01
R0006621	STORM001	303.	11/15/01	Letter from L. Donald Duke, Assistant Professor, UCLA Environmental Science and Engineering Program. Regarding GeoMatrix document: "Review of RGOS"
R0006624	STORM001	304.	11/20/01	Letter from Dennis Dickerson to Kenneth Farfsing regarding renewal of municipal storm water permit for LA County
R0006625	STORM001	305.	11/26/01	Letter from William Kelly, City Manager of Arcadia, to Congressman David Dreier requesting support for mediation effort
R0006627	STORM001	306.	11/26/01	Letter from William Kelly to Honorable Robert Margett requesting support for mediation effort.
R0006629	STORM001	307.	11/26/01	Letter from William Kelly to Honorable Richard Mountjoy requesting support for mediation effort
R0006631	STORM001	308.	11/27/01	Letter from Xavier Swamikannu to Sandy Matthews regarding review of BMP guide for RGOs

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R0006632	STORM001	309.	11/29/01	Supporting documents distributed at the 11/29/01 mediation session. Packet includes report from Dan Radulescu, "The Role of Municipal Operators in Controlling the Discharge of Pollutant in Storm Water Runoff from Industrial/Commercial Facilities." Packet includes NPDES permits from different regions across the nation, and City of Monterey Storm Water Ordinance
R0006709	STORM001	310.	11/29/01	Meeting notes and agenda for mediated dialogue on MS4 industrial/commercial inspections permit language
R0006727	STORM001	311.	12/3/01	Letter from Xavier Swamikannu to Steve Arita, WSPA, regarding supplemental document to 06/2001 RGO technical report "New Development Design Standards for Mitigation of Storm Water Impacts"
R0006738	STORM001	312.	12/3/01	Letter from CPR requesting continuation of mediation process
R0006740	STORM001	313.	12/3/01	Letter from Dennis Dickerson to Harry Seraydarian regarding version A/C industrial/commercial inspections permit language
R0006743	STORM001	314.	12/4/01	Fax from Dan Radulescu to Ronald Wilkniss, WSPA, containing 12/3/01 documents to Steve Arita, and report from Dan Radulescu, "Storm Water Quality Task Force BMP Guide for Retail Gasoline Outlets"
R0006750	STORM001	315.	12/5/01	Notes from WSPA Meeting regarding tentative permit, along with attendance and business card from BP's Maryann Gonzalez.
R0006752	STORM001	316.	12/5/01	Email from Dennis Dickerson regarding 12/13/01 Board meeting
R0006754	STORM001	317.	12/6/01	Fax from Ron Wilkniss to Dennis Dickerson regarding select language changes and delay of mark-up delivery
R0006756	STORM001	318.	12/6/01	Email from Shahram Kharanghani to Megan Fisher regarding suggested language from MS4
R0006758	STORM001	319.	12/7/01	Letter from Honorable Bob Margett to Chairman David Nahai regarding continuing the dialogue for the LA MS4 permit
R0006760	STORM001	320.	12/10/01	City of Signal Hill comments regarding proposed inspection program for version A/C
R0006763	STORM001	321.	12/10/01	Letter from CPR to Dennis Dickerson regarding LA MS4 permit schedule
R0006769	STORM001	322.	12/11/01	City of Baldwin Park - Alternative to Industrial/commercial pollution control program version A/C
R0006773	STORM001	323.	12/11/01	City of Walnut - Outlines major issues with the LA MS4 permit
R0006776	STORM001	324.	12/12/01	City of Irwindale - comments to tentative draft alternative to industrial/commercial pollution control program version A/C

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PAGE #	CD Vol.	ITEM	DATE	DOCUMENT
R0006780	STORM001		12/12/01	Fax from Angela Hudnall to Dennis Dickerson regarding increase of taxes due to storm water permit proposal
R0006782	STORM001	326.	12/12/01	Letter from Los Angeles Mayor James Hahn regarding issues related to the LA MS4 permit
R0006784	STORM001	327.	12/13/01	Notice of Exemption to State Board from Regional Board
R0006786	STORM001	328.	12/13/01	Board Meeting Agenda Item #10 (continued in Volume 14)
R0007753	STORM001	328.5	12/13/01	Board Meeting - Statement from Jacqueline Lambrichts, Friends of the San Gabriel River, supports efforts for approving a strong permit
R0007754	STORM001	329.	12/13/01	Board Meeting – Letters to the Board in support of passage of LA MS4 permit – List of senders only and a sample copy attached (originals available for review)
R0007762	STORM001	330.	12/13/01	Board Meeting - Statement by Larry Forester, Mayor, City of Signal Hill, and CPR.
R0007770	STORM001	331	12/13/01	Board Meeting- Transcript of Proceedings
R0007972	STORM001	332	12/17/01	Letter from Dennis Dickerson to Donald Wolfe regarding inspection of facilities covered under general permit.
R0007973	STORM001	333	12/21/01	Letter from Dennis Dickerson to James Noyes regarding requirements for baseline monitoring of trash in LA River and Ballona Creek
R0007977	STORM001	334	1/3/02	Transmittal letter and copy of the adopted LA MS4 Permit including the attachments to the permit and the fact sheet
R0008088	STORM001	335	1/7/02	Letter from Xavier Swamikannu regarding adoption of the LA County MS4 NPDES Permit
R0008090	STORM001 336	336	1/10/02	Letter from Howard Gest, Burhenn & Gest LLP, to Dennis Dickerson regarding petition of Order No. 01-182 and request for preparation of Administrative Record and list of interested persons
R0008092	STORM001	337	1/11/02	Letter from Dennis Dickerson to Senator Bob Margett replying to 12/7/01 letter regarding LA MS4 NPDES permit renewal
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R0008093	STORM001	339.		Federal Water Pollution Control Act – (33 U.S.C. 1251 et seq.)
R0008201	STORM001	340.		40 CFR § 122.26 et seq.
R0008238	STORM001	341.	06/11	Federal Register – Part II BPA – 40 CFR Parts 122, 123, and 124 NPDES Permit Application Regulations for Storm Water Discharges; Final Rule
R0008341	STORM001	342.	11/93	Federal Register – Part II EPA – Water Pollution Control, NPDES General Permits and Fact Sheets: Storm Water Discharges from Industrial Activity; Notice - Pages 61157-61158 The
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				Role of Municipal Operator
R0008344	STORM001	343.	8/9/96	Federal Register – Part III EPA – 40 CFR Part 122 Interpretative Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems; Final Rule.
R0008361	STORM001	344.	6/18/90	Order No. 90-079 NPDES No. CA0061654 WDR Stormwater/Urban Runoff Discharge for LA County and Co-Permittees.
R0008378	STORM001	345.	16/6/1	Memorandum from Donald Elliott, USEPA, regarding compliance with Water Quality standards in MS4 NPDES permits
R0008383	STORM001	346.	5/24/91	Memorandum from Craig Wilson, SWRCB, to Jesse Diaz regarding enforcement of general industrial storm water permit
R0008385	STORM001	347.	7/93	NPDES Storm Water Program. Question and Answer Document, Volume 2 US EPA Office of Water EPA 833-F-93-0028 – excerpt Question 88
R0008388	STORM001	348.	12/93	Memorandum from Eugene Bromley. EPA Region 9, to Maryann Jones. Storm Water SWRCB, regarding "Role of municipalities in Implementation of State General NPDES Permits for Storm Water Associated with Industrial Activity."
R0008395	STORM001	349.	10/5/94	Memorandum from William Attwater, SWRCB, to Clayton Roche regarding Attorney General Opinion NO. 94-814
R0008399	STORM001	350.	10/3/95	Memorandum from Elizabeth Miller Jennings to Bruce Fujimoto regarding compliance with water quality objectives in MS4 permits
R0008402	STORM001	351.	2/96	Responses to Comments Received on 12/18/95 Draft NPDES Permit
R0008455	STORM001	352.	4/17/96	Memorandum from Jorge Leon, Office of the Chief Counsel, to Catherine Tyrrell, regarding Legal issues for the draft LA MS4 NPDES permit
R0008472	STORM001	353.	7/30/96	Letter from Catherine Tyrrell to Permittees regarding WDR and NPDES Permit. Includes attachments: Storm Water Information Resources, letter from Winnie Jesena, letter from Catherine Kuhlman, and copy of Order No. 96-054
R0008581	STORM001	354.	3/17/98	Letter from Alexis Strauss, USEPA Region IX, to Walt Pettit regarding receiving water limitations language in MS4 permits
R0008584	STORM001	355.	5/5/98	Letter from Winnie Jesena, LA Coastal Watershed Unit, to LA County Municipal Storm Water Permittees regarding approval of BMPs for Development Construction and Industrial/Commercial Education Programs (NPDES Permit No. CAS614001)
R0008590	STORM001	356.	7/7/99	Letter from Dennis Dickerson to Ray Holland and Edward Putz transmitting the City of Long Beach Municipal Storm Water NPDES permit CAS004003
R0008647	STORM001	357.	2/00	Announcement – NPDES-Development Planning for Stormwater Management SUSMP

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STORM001 360. 4/6/00 STORM001 361. 7/31/00 STORM001 362. 7/31/00 STORM001 363. 8/3/00 STORM001 363. 8/3/00 STORM001 363. 8/3/00 STORM001 365. 10/18/00 STORM001 365. 12/11/00 STORM001 365. 12/11/00 STORM001 365. 12/11/00 STORM001 365. 12/19/00 STORM001 367. 04/08/99 STORM001 370. 01/12/96 STORM001 373. 09/26/94 STORM001	R0008686	STORM001	359.	4/3/00	Email from Barry Chalofsky regarding swimming pool discharges and attachments
STORM001 361. 7/31/00 STORM001 362. 7/31/00 STORM001 362. 7/31/00 STORM001 363. 8/3/00 STORM001 364. 10/18/00 STORM001 365. 12/11/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 367. 12/19/00 STORM001 369. 04/08/99 STORM001 370. 01/12/96 STORM001 371. 10/94 STORM001 372. 09/26/94 STORM001 373. 03/1997	R0008698	STORM001	360.	4/6/00	Letter from Lloyd Pellman, LA County Counsel, to Carol Browner regarding NRDC petition for correction of legal deficiencies or withdrawal of EPA approval
STORM001 362. 7/31/00 STORM001 363. 8/3/00 STORM001 363. 8/3/00 STORM001 365. 10/18/00 STORM001 365. 12/11/00 STORM001 365. 12/19/00 STORM001 366. 12/19/00 STORM001 367. 12/19/00 STORM001 369. 04/08/99 STORM001 370. 01/12/96 STORM001 371. 10/94 STORM001 372. 09/26/94 STORM001 373. 03/1997	R0008700	STORM001	361.	7/31/00	Letter from Harry Stone and Terri Grant, LA County Department of Public Works, to Dennis Dickerson with attached Countywide Stormwater Management Plan (CSWMP) Report of Effectiveness
STORM001 363. 8/3/00 STORM001 364. 10/18/00 STORM001 365. 12/11/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 367. 12/19/00 STORM001 368. 1/10/01 STORM001 368. 1/10/01 STORM001 369. 04/08/99 STORM001 369. 04/08/99 STORM001 370. 01/12/96 STORM001 370. 01/12/96 STORM001 371. 10/94 STORM001 372. 09/26/94 STORM001 373. 03/1997	R0008740	STORM001	362.	7/31/00	Five-Year Storm Water Public Education Strategic Analysis, submitted by LA County Department of Public Works
STORM001 364. 10/18/00 STORM001 365. 12/11/00 STORM001 365. 12/19/00 STORM001 365. 12/19/00 STORM001 367. 12/19/00 STORM001 367. 12/19/00 STORM001 368. 1/10/01 STORM001 369. 04/08/99 STORM001 369. 01/12/96 STORM001 370. 01/12/96 STORM001 371. 10/94 STORM001 373. 09/26/94 STORM001 373. 03/1997	R0008821	STORM001	363.	8/3/00	Letter from Dennis Dickerson to Jeff Pratt transmitting Ventura County Municipal Storm Water NPDES Permit CAS004002 (letter of transmittal)
STORM001365.12/11/00Fax from Gerald P. Munoz, Health Hazardous Materials Division, with attached letters concerning 'Residual Blood Releases'STORM001366.Letter from Alexis Strauss, Director Water Division, US EPA Region IX to Dennis A. Letter from Dickerson in support of a nunicipal inspection program for industrial sites included in the renewed MS4 Permit for LA CountySTORM001366.12/19/00Dickerson in support of a nunicipal inspection program for industrial sites included in the renewed MS4 Permit for LA CountySTORM001367.12/19/00Dickerson in support of Santa Monica City Council regarding green buildings fata and email from Dennis DickersonSTORM001368.1/10/01Executive Advisory Committee Meeting Agenda and email from Dennis DickersonSTORM001369.04/08/99Rouge River National Wet Weather Demonstration Project - Task Product MemorandumSTORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets - Project No. S2498- Geomatrix Consultants Inc.STORM001371.10/94Management Practices of Retail Gasoline Outlets - Project No. S2498- Geomatrix Consultants Inc.STORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets - California Stormwater QualitySTORM001373.09/26/94Project No. S2498 - Geomatrix Consultants Inc.	R0008822	STORM001	364.	10/18/00	Letter from Gary Lee Moore, City of LA, to Wendy Phillips on SUSMP Requirements as Part of CEQA Mitigation Measures
STORM001366.Letter from Alexis Strauss, Director Water Division. US EPA Region IX to Dennis A. renewed MS4 Permit for LA CountySTORM001367.12/19/00Dickerson in support of a municipal inspection program for industrial sites included in the renewed MS4 Permit for LA CountySTORM001367.12/19/00Dickerson in support of a municipal inspection program for industrial sites includedSTORM001367.12/19/00Dickerson in support of a municipal inspection program for industrial sites includedSTORM001368.1/10/01Executive Advisory Committee Meeting Agenda and email from Dennis DickersonSTORM001369.04/08/99Evaluation of On-Line Media Filters - Alsaigh, R; Boerna, J; Ploof, A and L. RegenmorterSTORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets - Project No. S2498 - Geomatrix Consultants Inc.STORM001371.10/94Management Practices or Vinibe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Project No. S2498 - Geomatrix Consultants Inc.STORM001373.03/1997Best Management Practices C Final Report-Uribe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Project No. S2498 - Geomatrix Consultants Inc.STORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets - California Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets - California Storm Water Quarker	R0008828	STORM001	365.	12/11/00	Fax from Gerald P. Munoz, Health Hazardous Materials Division, with attached letters concerning 'Residual Blood Releases'
STORM001367.12/19/00Ordinance (1995 CCS) of City of Santa Monica City Council regarding green buildingsSTORM001368.1/10/01Executive Advisory Committee Meeting Agenda and email from Dennis DickersonSTORM001369.04/08/99Eventive Advisory Committee Meeting Agenda and email from Dennis DickersonSTORM001369.04/08/99Evention of On-Line Media Filters - Alsaigh, R; Boerma, J; Ploof, A and L. RegenmorterSTORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets - Project No. S2498 -STORM001371.10/94Action Plan Demonstration Project - Demonstration of Gasoline Fueling Station BestSTORM001372.09/26/94Project No. S2498 - Geomatrix Consultants Inc.STORM001373.03/1997Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets - California Stormwater Quality	R0008830	STORM001	366.	12/19/00	Letter from Alexis Strauss, Director Water Division, US EPA Region IX to Dennis A. Dickerson in support of a municipal inspection program for industrial sites included in the renewed MS4 Permit for LA County
STORM001368.1/10/01Executive Advisory Committee Meeting Agenda and email from Dennis DickersonSTORM001369.04/08/99Rouge River National Wet Weather Demonstration Project – Task Product Mennorandum -STORM001369.04/08/99Evaluation of On-Line Media Filters – Alsaigh, R; Boerma, J; Ploof, A and L. RegenmorterSTORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets – Project No. S2498 –STORM001371.10/94Action Plan Demonstration Project – Demonstration of Gasoline Fueling Station BestSTORM001371.10/94Management Practices – Final Report-Uribe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets – California Stormwater Quality	R0008838	STORM001	367.	12/19/00	Ordinance (1995 CCS) of City of Santa Monica City Council regarding green buildings standards
STORM001369.04/08/99Rouge River National Wet Weather Demonstration Project – Task Product Memorandum - Evaluation of On-Line Media Filters – Alsaigh, R; Boerma, J; Ploof, A and L. Regenmorter STORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets – Project No. S2498 – Geomatrix Consultants Inc.STORM001371.10/94Action Plan Demonstration Project – Demonstration of Gasoline Fueling Station Best Management Practices – Final Report-Uribe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets – California Stormwater Quality	R0008840	STORM001	368.	10/01/1	Executive Advisory Committee Meeting Agenda and email from Dennis Dickerson
STORM001370.01/12/96Storm Water Best Management Practices for Retail Gasoline Outlets – Project No. S2498 – Geomatrix Consultants Inc.STORM001371.10/94Action Plan Demonstration Project – Demonstration of Gasoline Fueling Station Best Management Practices – Final Report-Uribe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff Study Project No. S2498 – Geomatrix Consultants Inc.STORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets – California Stormwater Quality	R0008890	STORM001	369.	04/08/99	Rouge River National Wet Weather Demonstration Project – Task Product Memorandum - Evaluation of On-Line Media Filters – Alsaigh, R; Boerma, J; Ploof, A and L. Regenmorter
STORM001371.10/94Action Plan Demonstration Project – Demonstration of Gasoline Fueling Station Best Management Practices – Final Report-Uribe & Associates, Larry Walker AssociatesSTORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff Study Project No. S2498 – Geomatrix Consultants Inc.STORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets – California Stormwater Quality	R0008940	STORM001	370.	01/12/96	Storm Water Best Management Practices for Retail Gasoline Outlets – Project No. S2498 – Geomatrix Consultants Inc.
STORM001372.09/26/94Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff StudySTORM001373.03/1997Best Management Practice Guide Retail Gasoline Outlets – California Stormwater Quality	R0009086	STORM001	371.	10/94	Action Plan Demonstration Project – Demonstration of Gasoline Fueling Station Best Management Practices – Final Report-Uribe & Associates, Larry Walker Associates
STORM001 373. 03/1997	R0009136	STORM001	372.	09/26/94	Results of a Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff Study – Project No. S2498 – Geomatrix Consultants Inc.
	R0008649	STORM001	373.	03/1997	Best Management Practice Guide Retail Gasoline Outlets - California Stormwater Quality

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				Task Force (SWQTF). Prepared by Retail Gasoline Outlet Work Group
R0009145	STORM001	374.	08/17/98	Petroleum Hydrocarbons in Stormwater Runoff from Retail Gasoline Stations – Pat L. Ashley. CSUF
R0009253	STORM001	375.	1995	Concentrations Of Selected Constituents In Runoff From Impervious Surfaces In Four Urban Catchments Of Different Land Use by Florence I. Rabanal et all in Proceedings of the 4th Biennial Conference on Stormwater Research, 18-20 October, 1995. Southwest Florida Water Management District, Clearwater, Florida, pp. 42-52.
R0009264	STORM001	376.	1998	A Review of Semivolatile and Volatile Organic Compounds in Highway Runoff and Urban Stormwater U.S. Department of the Interior and U.S. Geological Survey Open-File Report 98-409 http://wwwsd.cr.usgs.gov/nawqa/pubs/ofr/ofr98-409.pdf
R0009336	STORM001	377.	4-10/00	Stormwater Sampling – StormFilter TM Performance Results. Burwell/Straley's Union 76 Station Bremerton, Washington:
R0009343	STORM001	378.	1/11/01	Legislative Analysis – Committee Hearing: Economic Development. Transportation and Technology. File Number: 97-97-057 – Motor Fuel Prices. www.ci.sf.ca.us/bdsupvrs/leganalyst/97-97-057.htm
R0009354	STORM001	379.	1/23/01	Fax from the Board of Equalization Statistics Section to Dan Radulescu, with attachments regarding fuel taxes and highway gasoline use
R0009357	STORM001	380.	1/25/01	California Retail Service Stations, Fleet Fueling Facilities and Private Storage Tank Sites and Other Statistical Data by County – <u>http://www.energy.ca.gov/statistics/gasoline_stations/</u>
R0009361	STORM001	381.	3/7/01	Email from Dan O'Leary to Dan Radulescu regarding impact of gas stations to storm water with photographs attached
R0009369	STORM001	382.		Hydrocarbon Hotspots in the Urban landscape – Article 2: Feature article from Watershed Protection Techniques. 1(1): 3-5 (with notes from <u>www.stornwatercetner.net</u>)
R0009375	STORM001	383.	-	Cars are Leading Source of Metal Loads in California – Article 6: Technical Note #13 from Watershed Protection Techniques. 1(1): 28 – (TRS)
R0009376	STORM001	384.		Multi-Chamber Treatment Train Developed for Stormwater Hot Spots – Article 111: Technical Note from Watershed Protection Techniques 2(3): 11-13 – (TJL)
R0009381	STORM001	385.	2/01	Impact of Annual Average Daily Traffic on Highway Runoff Pollutant Concentration – ASCE Journal of Environmental Engineering
R0009410	STORM001	386.		Performance of Oil-Grit Separators in Removing Pollutants at Small Sites – Article 119: Technical Note #101 from Watershed Protection Techniques. 2(3): 539-542 – (TRS)

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	TITLE	Petroleum Hydrocarbon Concentrations Observed in Runoff from Discrete, Urbanized Automotive-Intensive Land Uses – David L. Shepp, Senior Environmental Engineer, Metropolitan Washington Council of Governments, Washington, DC	Characteristics of Parking Lot Runoff Produced by Simulated Rainfall – Southern California Coastal Water Research Project. Liesl L. Tiefenthaler, Kenneth C. Schiff, Steven M. Bay	New York State Stormwater Management Design Manual – Chapter 4 Unified Stormwater Sizing Criteria	State of Virginia Stormwater Management Manual – Chapter 2 Stormwater Management and Urban BMPs	Pollutant Dynamics of Pond Muck – Watershed Protection Techniques, Summer 1994 – http://www.stornnwater-resources.com/Library/124Pmuck.htm	Stormwater Management Manual – Revision #1. Environmental Services City of Portland Clean River Works – www.enviro.ci.portland.or.us/swm2.htm	Innovative Urban Wet-Weather Flow Management Systems – Chapter 4 Eds. Richard Field, James P. Heaney, Robert Pitt. Technomic Publishing Company, Inc. <u>http://www.epa.gov/ednn:mrl/publish/book/epa-600-r-99-029/</u>	Handbook – Urban Runoff Pollution Prevention and Control Planning. USEPA Office of Research and Development. EPA/625/R-93/004. Page 111 only	Technical Report CRWR 263 – Characterization of Highway Runoff in the Austin, Texas Area – Michael E.Barret, Joseph F. Malina, and Randall J. Charbeneau. Center for Research in Water Resources	Virginia Stormwater Management Handbook Chapter 3.12 http://www.dcr.state.va.us/sw/stormwat.htm#handbook	Report on The EPA Storm Water Management Program – USEPA EPA830-R-92-001	Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for	Discutinges from Municipal Separate Storing Sewer Systems – USEFA Unice of Water, EFA 833-B-92-002	Overview of the Storm Water Program – USEPA Office of Wastewater Enforcement and Compliance Permits Division	Memorandum – Municipal Storm Water Management Plan Components –Thomas Mumley (CARWOCB) to Storm Water Permit Program Coordinators	Municipal Wastewater Management Fact Sheets Storm Water Best Management Practices -
	DATE	Petroleum H. Automotive- Metropolitan	7/01 Characteristi Coastal Wate Coastal Wate	10/01 New York Stat Sizing Criteria	State of Virgi Urban BMPs	Pollutant Dy	9/00 Stormwater Noter P	2000 James P. Her <u>James P. Her</u>	9/93 Handbook – Research and	Technical Report10/95– Michael E.BarrWater Resources	Virginia Stor http://www.d	10/92 Report on Th	11/92 Guidance Ma	833-B-92-002	10/93 Overview of Compliance	8/8/94 Memorandur (CARWOCE	9/96 Municipal W
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				USEPA Office of Water EPA 832-F-96-001
R0010281	STORM002	402.	8/1/97	Economic Analysis of the Storm Water Phase II Proposed Rule: Initial Final Draft – USEPA.
R0010302	STORM002	403.	10/97	Enforceable State Mechanisms for the Control of Nonpoint Source Water Pollution – Environmental Law Institute Research Report.
R0010339	STORM002	404.	7/98	Performance of Urban Stormwater Best Management Practices – N.L. Law and L.E. Band University of North Carolina, Chapel Hill Department of Geography
R0010362	STORM002	405.	8/98	Analysis of the Sampling Results, 1996-97 Annual Report for Storm Water Industrial Activities General Permit. CARWQCB-LA Region, Standards and Enforcement Unit. Storm Water Industrial General Permit Group – Final Draft
R0010392	STORM002	406.	1998	From Theory to Implementation – Finding Illicit Connections. Barry Honson. Camp Dresser & McKee. Dean Tuomari, Wayne County Department of Environment
R0010402	STORM002	407.	5/99	The Causes of Urban Stormwater Pollution, Ch.2 Clean Water & Oceans: Water Pollution: In Depth Report: Stormwater Strategies, Community Response to Runoff Pollution – Natural
R0010418	STORM002	408.	10/99	Report to Congress on the Phase II Storm Water Regulations – USEPA Office of Water EPA 833-R-99-001.
R0010460	STORM002	409.	2/00	Stormwater Management Manual, First Edition - City of Greensboro Storm Water Services
R0010593	STORM002	410.	3/00	Storm Water Phase II Compliance Assistance Guide – USEPA Office of Water EPA 833-R-00- 002
R0010691	STORM002	411.	4/22/00	Building a Balance: Housing Affordability and Environmental Protection in the USA – Joseph Laquatra and Gregory L. Potter – Electronic Green Journal http://egi.lib.uidaho.edu/egi12/laguatra1.html
R0010703	STORM002	412.	9/04/00	Study Nails Building Costs – Janice Billingsley – HealthSCOUT – http://dailynews.yahoo.com/h/hsn/20000904/h1/study nails building costs 1.html
R0010706	STORM002	413.		Economic Issues in Water Quality Regulation – Adrian Griffin, Senior Economist, State Water Resources Control Board.
R0010711	STORM002	414.	9/95	Economic Benefits of Runoff Controls EPA 841-S-95-002
R0010735	STORM002	415.	66/8	Preliminary Data Summary of Urban Stornwater Best Management Practices Chapter 6 EPA- 821-R-99-012 <u>http://www.epa.gov/ost/stornwater/#Report</u>
R0010780	STORM002	416.	8/01	Cost Analysis Washington Dept. of Ecology Year 2001 Minimum Requirements for Stormwater Management in Western Washington
R0010880	STORM002	417.	10/01	The Economic Benefits of Protecting Virginia's Streams, Lakes, and Wetlands - State of

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				Virginia Dept. of Conservation and Recreation
R0010909	STÓRM002	418.	10/01	The Economic Benefits of Better Site Design in Virginia - State of Virginia Dept. of Conservation and Recreation
R0010916	STORM002	419.	10/2	U.S. Metro Economies: The Engines of America's Growth A Decade of Prosperity prepared for the United State Conference of Mayors
R0010984	STORM002	420.	8661	City of Los Angeles 1998 Economic and Demographic Information
R0011017	STORM002	421.	2/01	California and Los Angeles County statistics: population, education, labor force and employment, income and sales, foreign tradeCalifornia Dept. of Finance Economic Research
R0011082	STORM002	422.	2000	www.dof.ca.gov Storm Water 2000 Monitoring Efforts - Santa Monica Bay Restoration Project
R0011101	STORM002	423.	2000	Tools to Measure Source Control Program Effectiveness – Watershed and Ecosystems. Project 98-WSM-2.
R0011175 ~	STORM002	424.	10/1	A Citizen's Guide to Planning – Governor's Office of Planning and Research.
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R0020134	STORM003	514.	2/16/01	Urban Watershed Best Management Practices – ASCE Continuing Education Seminar, Presented by Dan O'Leary.
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R0027311	STORM003	590.	5/4/01	Coal mining, fecal bacteria, and radon are water-quality issues for the Kanawha River basin – News Release US Department of the Interior, US Geological Survey – James Eychaner and Katherine Paybins.
R0027314	STORM003	591.	5/01	Potential Pollutant Sources Associated with Various Industrial and Commercial Activities – Staff Report – Regional Water Quality Control Board – Los Angeles.
R0027327	STORM003	592.		Pesticides in Stream Sediment and Aquatic Biota; Current Understanding of Distribution and Major Influences – USGS Fact Sheet 092-00.
R0027331	STORM003	593.		Environmental Indicator Profile Sheet – Center for Watershed Protection
R0027335	STORM003	594.	3/75	Contributions of Urban Roadway Usage to Water Pollution – Office of Research and Development US EPA
R0027688	STORM003	595.	1996	Assessing the Condition and Status of Aquatic Life Designated Uses in Urban and Suburban

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				Watersheds - Chris O. Yoder and Edward T. Rankin
R0027715	STORM003	596.	1/01	Preparing for the Storm: Preserving Water Resources with Stormwater Utilities – Barrett P. Walker, Policy Study No. 275 RPPI
R0027760	STORM003	597;	1976	Basic Data on Urban Storm-Water Quality, Portland, Oregon – USGS Open File Report 76- 594. In cooperation with the US Army Corps of Engineers and the Columbia Region Accordation of Governments
R0027836	STORM003	598.	. 8661	Administrative Record for the City of Long Beach v. Los Angeles Regional Water Quality Control Board Case No. BC174293
PAGE#	CD Vol.	ITEM	DATE	VOLUME 1: Los Angeles County Storm Water/Urban Runoff Permit Renewal Process
R0027928	STORM004	599.	6/25/90	CRWQCB – Robert Ghirelli addressed to T.A. Tidemanson (Director of LACDPW) Regarding Waste Discharge Requirements – Storm Water/Urban Runoff Discharge for Los Angeles County and Co-Permittee
R0027929	STORM004	600.	6/18/90	Order No. 90-079 (NPDES No. CA0061654, CI 6948) – Waste Discharge Requirements Storm Water/Urban Runoff Discharge for Los Angeles County and Co-Permittees
R0027946	STORM004	601.	6/8/93	City of Long Beach letter addressed to T.A. Tidemanson – Letter of intent to participate as co- permittee in NPDES permit CA0061654, CI 6948
R0027947	STORM004	602.	8/8/94	LARWQCB Letter to Long Beach RE: Permit Renewal Requirements.
R0027949	STORM004	603.	11/15/94	LARWQCB Letter to Long Beach RE: Submitting a Letter of Intent
R0027952	STORM004	604.	1/4/95	LARWQCB - Letter to LA County Department of Public Works notifying inadequate fees
R0027954	STORM004	605.	1/13/95	LARWQCB – Acknowledgement of renewal application
R0027956	STORM004	606.	2/14/95	Letter from CRWQCB addressed to James Noyes, Deputy Director
R0027957	STORM004	607.	2/10/95	Draft of Storm water Management/Urban Runoff Discharges within the Malibu Creek an other Rural Areas Watershed – Santa Monica Bay, Los Angeles County
R0028002	STORM004	608.	9/15/95	Memo from Catherine Tyrrell to County of LA /Municipal Permittee Transmitting Sept. 15 draft of LA Municipal Permit
R0028003	STORM004	609.	9/15/95	Draft LA County Municipal Stormwater Discharge Permit - Sept. 15, 1995
R0028046	STORM004	610.	9/26/95	City of Long Beach comments on September 15, 1995, partial draft of the LA County Municipal Storm Water Permit.
R0028048	STORM004	611.	1/8/96	LARWOCB Response to Permittee Comments on September 15, 1995, draft permit.

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R0028063	STORM004	612.	12/18/9 5	LARWQCB letter to Permittees and interested parties transmitting the December 18. 1995 draft permit.
R0028075	STORM004	613.	12/18/95	Dec. 18, 1995 Draft Permit
R0028176	STORM004	614.	1/29/96	City of Long Beach comments on the December 18, 1995, draft permit.
R0028184	STORM004	615.	1/29/96	Letter from Jorge Leon, Lisa Peskay Malmsten and Rufus Young
R0028196	STORM004	616.	4/17/96	Letter to Municipal/ County Counsel from Jorge Leon, Senior Staff Counsel, State Water Resource Control Board
R0028200	STORM004	617.	5/8/96	City Attorney of Long Beach, Lisa Peskay Malmsten, Letter - addressed to Catherine Tyrrell
R0028203	STORM004	618.	5/17/96	City of Long Beach comments on the May 15, 1996 in-house draft Tentative Pennit
R0028207	STORM004	619.	7/3/97	City of Long Beach. Transmitting July 2, 1996 Resolution
R0028214	STORM004	620.	5/23/96	LARWQCB letter to Permittees and interested parties transmitting the May 23, 1996 draft permit
R0028218	STORM004	621.	5/23/96	LARWQCB Fact Sheet to Permittees and interested parties transmitting with the May 23, 1 996 draft permit
R0028231	STORM004	622.	5/23/96	The May 23, 1 996 Tentative Permit
	STOPMOON	623.	4/17/96	Memoranda from Jorge Leon (Board Counsel) to Catherine Tyrrell (Board Assistant
R0028333				Executive Officer) on legal issues raised by permittees.
R0028351	STORM004	624.	2/11/93	Memoranda from Elizabeth Miller Jennings, Senior Staff Counsel, State Water Resource Control Board
R0028356	STORM004	625.		LARWQCB Staff Response to Permittee Comments on December 18, 1995, draft permit.
R0028409	STORM004	626.	5/22/96	Memoranda from Jorge Leon to Catherine Tyrrell on Receiving Water Limitations.
R0028411	STORM004	627.	6/17/96	June 17, 1996 Letter/Transmitting Revisions to May 23, 1996 LA County Storm Water Tentative Permit.
R0028415	STORM004	628.	6/26/96	City of Long Beach comments on the May 23, 1996, Tentative Permit.
R0028428	STORM004	629.	6/22/96	City of Long Beach Resolution
R0028445	STORM004	630.	7/5/96	LARWQCB letter to Permittees and interested parties transmitting the July 5, 1996 Revised Tentative Permit
R0028446	STORM004	631.		Fact Sheet
R0028454	STORM004	632.	96/S/L	The July 5, 1996 Revised Tentative Permit
R0028570	STORM004	633.	7/5/96	Hearing Procedure for the July 15, 1996, Regional Water Quality Control Board Meeting
R0028571	STORM004	634.	7/15/96	Change Sheet to the July 5, 1996, Revised Tentative Permit

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R0028796	STORM004	659.	7/11/95	Storm Water Permit Renewal Subjects and Meeting Dates
R0028797	STORM004	660.	7/20/95	Storm Water Permit Renewal Subjects and Meeting Dates
R0028798	STORM004	661.	8/2/95	Storm Water Permit Renewal Subjects and Meeting Dates
R0028799	STORM004	662.	10/3/95	LA County Municipal Storm Water Permit Schedule
R0028800	STORM004	663.	11/2/95	Timeline for Finalizing Permit Sections
R0028801	STORM004	664.	11/15/95	Los Angeles County Municipal Storm Water Permit Schedule
R0028802	STORM004	665.	12/12/95	Los Angeles County Municipal Storm Water Permit Schedule
R0028803	STORM004	666.	06/18/96	Agenda for Los Angeles County Municipal Storm Water NPDES Permit at Los Angeles City Hall, Board of Public Works Hearing Room.
R0028805	STORM004	667.		Sign-in Sheet
R0028817	STORM004	668.	8/1/94	LA County Storm Water Permit meeting of the Executive Advisory Committee at LA County Dept. of Public Works Headquarters
R0028818	STORM004	669.		Sign-in Sheet
R0028820	STORM004	670.	8/11/94	NPDES Permit Renewal Coordinating Committee
R0028821	STORM004	671.	10/17/94	Joint Co-Permittee Meeting Minutes
R0028824	STORM004	672.	11/23/94	Phase III - Monthly Permittee Meeting Minutes
				NPDES Storm Water Permit Renewal Meeting - Representatives of Santa Monica Bay Cities
R0028827	STORM004	673.	1/17/95	Agenda and Sign-in sheet, Schedule, letter of Jan. 13,1995. and Initial Assessment of Volume 2 and 3 of ROWD
R0028837	STORM004	674.	1/19/95	Monthly Malibu Creek and Other Rural Areas Watershed Permittee Meeting and Sign-in Sheet
R0028841	STORM004	67.5.	1/24/95	NPDES Storm Water Permit Renewal Meeting Agenda - Environmental Group Representatives
R0028842	STORM004	676.	2/2/95	Santa Monica Bay, Malibu Creek and Other Rural Areas - Agenda Permittee Meeting
R0028843	STORM004	677.	4/3/95	NPDES Storm Water Permit Renewal Meeting - Regional Water Quality Control Board, Los Angeles Region Agenda and Sign-in Sheet
R0028846	STORM004	678.	4/17/95	NPDES Storm Water Permit Renewal Meeting - Regional Water Quality Control Board, Los Angeles Region Agenda and Sign-in Sheet
R0028847	STORM004	679.	5/12/95	NPDES Storm Water Permit Renewal Meeting - Regional Water Quality Control Board, Los Angeles Region Agenda Draft
R0028854	STORM004	680.	5/12/95	NPDES Storm Water Permit Renewal Meeting - Regional Water Quality Control Board, Los Angeles Region Final Agenda and Sign-in Sheet
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R0028972	STORM004	728.	3/18/96	LA Municipal Storm Water Discharge Permit Meeting Sign-in Sheet
R0028973	STORM004	729.	3/28/96	Dominguez Channel/Los Angeles Harbor Drainage Watershed -Permittee Meeting
R0028974	STORM004	730.	3/28/96	San Gabriel River Watershed Permittee Meeting
R0028975	STORM004	731.	5/1/96	Los Angeles County Municipal Storm Water Permit Renewal Meeting -Sign-in Sheet
R0028976	STORM004	732.	5/2/96	Malibu Creek and Other Rural Areas Watershed Monthly Co-Permittee Meeting- Major items of Discussion and Sign-in Sheet
R0028978	STORM004	733.	5/7/96	City of Los Angeles Inter-Departmental Correspondence - NPDES Co-Permittee Public Outreach Committee for May 1 996
R0028979	STORM004	734.	5/15/96	NPDES Storm Water Permit Renewal Meeting, Regional Water Quality Control Board, Los Angeles Region - Agenda Draft and Sign-in Sheet
R0028984	STORM004	735.	5/23/96	Water Resources Committee Meeting Notice - Los Angeles Area Chamber of Commerce
R0028986	STORM004	736.	96/9/9	Santa Monica Bay, Malibu Creek and Other Rural Areas - Permittee Meeting Agenda and sign in sheet
R0028988	STORM004	737.	6/11/96	Malibu Creek and Other Rural Areas Watershed Monthly Co-Permittee Meeting- Major items of Discussion and Sign-in Sheet
R0028989	STORM004	738.	6/13/96	Los Angeles River Watershed Monthly Co-Permittee Meeting - Major Points of Discussion and Sign-in Sheet
R0028992	STORM004	739.	6/14/96	LA County Renewal Meeting Sign-in Sheet
R0028993	STORM004	740.	6/2/1/96	Dominguez Channel/LA Harbor Drainage Watershed Monthly Permittee Meeting - Major Items of Discussion and Sign-in Sheet
R0028995	STORM004	741.	96/11//2	Santa Monica Bay, Malibu Creek and Other Rural Areas - Permittee Meeting Agenda
R0028996	STORM004	742.	96/11/L	Los Angeles River Watershed Permittee Meeting - Agenda, Major Points of Discussion, and Sign-in Sheet
R0029000	STORM004	743.	96/11/L	Malibu Creek and other Rural Areas Watershed Monthly Co-Permittee Meeting - Major Items of Discussion and Sign-in Sheet
R0029002	STORM004	744.	7/15/96	Malibu Creek Watershed Executive and Advisory Council Meeting Approving Minutes of April 8, 1996 meeting
R0029007	STORM004	745.	9/15/95	Memo from SMBRP to Bay Oversight Committee
R0029009	STORM004	746.	9/28/95	Meeting Agenda - SMBRP- Recommendation for Motion re Municipal Storm Water NPDES
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R0029015	STORM004	747.	11/29/95	Meeting Agenda and Minutes - SMBRP - Los Angeles County Municipal Stormwater NPDES Permit
R0029022	STORM004	748.	1/18/96	Meeting Agenda and Minutes - SMBRP - Los Angeles County Municipal Stormwater NPDES Permit
R0029030	STORM004	749.	2/21/96	Meeting Agenda and Minutes - SMBRP - Plan Implementation: Storm Water/Urban Runoff Management - Los Angeles County Municipal Stormwater NPDES Permit
R0029035	STORM004	750.	3/14/96	Meeting Agenda and Minutes - SMBRP - Management and Control of Storm Water/Urban Runoff: Los Angeles County Municipal Storm Water NPDES Permit.
R0029042	STORM004	751.	5/7/96	Meeting Agenda - SMBRP - Script for NPDES Advisory Video
R0029045	STORM004	752.	06/10/90	Meeting Agenda - SMBRP - Letter from City Council members
R0029046	STORM004	753.	06/20/96	Meeting Agenda and Minutes - SMBRP - Storm Water Permit
R0029051	STORM004	754.	6/27/96	Meeting Agenda - SMBRP
			·	1995 MEETING AGENDA PACKAGES
R0029054	STORM004	755.	4/3	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029108	STORM004	756.	4/17	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029160	STORM004	757.	5/1	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029377	STORM004	758.	5/15	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029466	STORM004	759.	6/5	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029594	STORM004	760.	7/24	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
R0029764	STORM004	761.	9/27	LARWQCB Storm Water Permit Renewal Meeting Agenda Package
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R0029841	STORM004	762.	1/29	State Senator Tom Harden
R0029843	STORM004	763.	1/29	State Assembly member Sheila James Kuehl, 41st District
R0029844	STORM004	764.	1/29	California Coastal Commission
R0029848	STORM004	765.	1/25	Metropolitan Water District
R0029851	STORM004	766.	1/29	Santa Monica Bay Restoration Project

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<b>DATE VOLUME 3:</b> Comments on Los Angeles County Storm Water NPDES Permit	1/22 County Sanitation Districts of Los Angeles County	1/23 County of Los Angeles, Department of Health Services	Ventura Countrywide Storm Water Quality Management Program	ENVIRONMENTAL GROUPS	1/25 Heal the Bay, NRDC, American Oceans Campaign, SM BayKeeper, Friends of LA River	1/29 American Oceans Campaign	1/29 Treepeople	1/29 Heal the Bay	2/27/96 Heal The Bay	1/29 NRDC	1/29 Santa Monica Baykeeper	BUSINESS ASSOCIATIONS AND COMPANIES	1/25 Ahmanson Land Company	1/26 Building Industry Association	3/17 Building Industry Association	1/26 Southern CA Contractors' Assn.	1/26 Southern CA Rock Products & Ready Mixed Concrete Assns.	1/30 Valencia Company	1/29 Western States Petroleum Assn.	CONSULTANTS TO PERMITTEES	<ul><li>John L. Hunter and Associates, Inc. – For Sierra Madre, Signal Hill, South El Monte, and</li><li>South Gate</li></ul>	1/30 Burke, Williams, & Sorensen – For City of Belfflower	I/29         Richards, Watson & Gershon – For: Bradbury, Beverly Hills, Carson, Diamond Bar, Hermosa           1/29         Beach, Norwalk, Rolling Hills, West Hollywood, & Westlake Village	2/12 Richards, Watson & Gershon – Public Records Request	2/15 Burke, Williams & Sorensen – Public Records Act Request	4/17 Richards, Watsonl& Gershon – Municipal Storm Water Permit Transmittal of Diskette	4/23 Richards, Watson & Gershon – Redlined copy of the revised version of NPDES permit.	
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R0030114	STORM004	792.	5/9	Richards, Watson & Gershon – Program Evaluation and Reporting Section of Draft NPDES Permit
R0030119	STORM004	793.	5/6	Oliver, Vose, Sandifer, Murphy and Lee –Request to reschedule the May 29, 1996 workshop
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R0030122	STORM004	794.	1/24	LA County Dept. of Public Works – Transmitted Executive Advisory Committee (EAC) comments
R0030123	STORM004	795.		LA County Dept. of Public Works – Executive Advisory Committee Concerns
R0030132	STORM004	796.	1/29	LA County Dept. of Public Works – Principal Permittee
R0030172	STORM004	797.	4/23	LA County Dept. of Public Works – EAC Adoption of Alternative Countywide Program Requirements
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R0030256	STORM004	805.	1/29	Calabasas
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R0030283	STORM004	810.	1/9	Covina
R0030287	STORM004	811.	1/25	Covina, addressed to Frank Kuo
R0030294	STORM004	812.	1/25	Culver City

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R0030309	STORM004	814.	1/29	Downey
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	Santa C	Santa Fo	Santa M	Sierra N	Signal <b>F</b>	South E	South G	Torranc	Vernon	Vernon	WestCo	Whittie	Ā		Burke, Bellflo	Sidley	Sidley	Transm	City of	David ] (pp 12,	Richard	Richard	Oliver,	City of	
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Environmental Group - Heal the Bay

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			GOVER	ERNMENT OFFICIALS AND PUBLIC AGENCIES
R0030891	STORM004	866.	6/25	Castaic Lake Water Agency
R0030892	STORM004	867.	6/25	California Coastal Commission
R0030917	STORM004	867.5	6/27	Southern California Association of Governments
R0030919	STORM004	868.	1//2	Independent Cities Association
R0030924	STORM004	869.	7/5	CRWQCB Response to 6/27, Councilman Dawidziak letter and Fact Sheet
R0030928	STORM004	870.	6/28	State Board Response to Citizen Letters-Attached Citizen Letters
R0030959	STORM004	871.	6/18	State Board Response-From Chairman John Caffrey to San Gabriel Valley Council of Governments, Description Ma. Boatring 18.1 is Dieto Vierlow
R0030961	STORM004	872.	7/3	Southern Phys. Deature 33, Lat Flato-Milluey Southern California Association of Governments – SCAG's position NPDES Stormwater Permit
				ENVIRONMENTAL GROUPS
R0030965	STORM004	873.	6/26	Heal the Bay
R0030971	STORM004	874.	6/28	Natural Resources Defense Council
R0030982	STORM004	875.	7/3	Letter from Santa Monica Baykeeper on Legal Authority regarding pet waste in New Permit
				BUSINESS ASSOCIATIONS
R0030990	STORM004	876.	6/24	Building Industry Association of Southern California, Inc.
R0030994	STORM004	877.	6/25	California Restaurant Association
R0030997	STORM004	878.	6/14	Western States Petroleum Association
R0031001	STORM004	879.	6/24	Western States Petroleum Associates
				CONSULTANTS TO PERMITTEES
R0031003	STORM004	880.	5/2	Sidley & Austin – Monitoring Language From L.A. County/NRDC Agreement
R0031016	STORM004	881.	6/5	Burke, Williams & Sorensen – For Cities of Alhambra, Bellflower, Downey, El Segundo, and Santa Clarita
R0031020	STORM004	882.	1/L	Oliver, Vose, Sandifer, Murphy & Lee - For: Covina, Bell, South Pasadena, and Calabasas
R0031022	STORM004	883.	6/26	Richards, Watson & Gershon – For Cities of Carson, West Hollywood, Westlake Village, Norwalk, Cudahy, La Habra Heights, San Marino, Diamond Bar, Rolling Hills, and Artesia
R0031047	STORM004	884.	6/26	Rutan & Tucker, LLP - For Cities of Baldwin Park, Lawndale, Signal Hill and West Covina
R0031063	STORM004	885.	6/26	Burke, Williams & Sorensen – For City of Downey
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				VOLUTME 5: Comments on Los Angeles County Storm Water NPDES Permit
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				PERMITTEES
R0031074	STORM004	886.	6/14	Board of Supervisors County of Los Angeles
R0031075	STORM004	887.	7/15	LA County, Dept. of Public Works - Year Six Annual Report
R0031076	STORM004	888.	6/26	LA County, Dept. of Public Works
				CITIES OF:
R0031084	STORM004	889.	6/24	Alhambra
R0031087	STORM004	890.	6/25	Azusa
R0031091	STORM004	891.	5/28	Baldwin Park
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R0031095	STORM004	893.	6/25	Commerce
R0031099	STORM004	894.	6/28	Cerritos
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R0031103	STORM004	896.	6/24	Cudahy
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R0031136	STORM004	901.	5/28	El Monte
R0031140	STORM004	902.	6/26	Glendale
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K0031314 80031327 80031332 80031332 80031332 80031332 80031334 80031334 80031335 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031336 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 80031337 8003137	STORM004 STORM004 STORM004 STORM004 STORM004	918. 918. 920. 921. ,	0/20 6/25 6/26 6/26 6/26 6/26	Redoluto Beacu Rolling Hills Estates Rosenead San Marino Santa Clarita
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R0031397 R0031402 R0031412	STORM004 STORM004 STORM004	934. 935. 936.	5/96 6/10/96 6/10/96	Permit "Lite" for the Non-Technical Reader" Comparison of LA County Draft Storm Water Permit with Similar Permits in Orange and Santa Clara Counties; EPA Region 9 Draft Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits

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R0031422.	STORM004	937.	96/11/9	Regional Board Letter Regarding EPA Revisions to the May 23, 1996, Tentative
R0031426	STORM004	938.	96/01/9	Comparative Cost of the LA County Storm Water Management Program
		939.	96/81/9	Slide Presentation Copies for Comparative Cost of the Los Angeles County Storm Water
	STORM004			Management Program by Marianne Yamaguchi & Dr. Guangyu Wang of Santa Monica Bay
R0031431				Restoration Project
R0031445	STORM004	940.	6/11/96	NPDES Tentative Permit Costs - City of Manhattan Beach
R0031446	STORM004	941.	6/20/96	Tourism and Beach Use Valuation
R0031455	STORM004	942.	96/81/9	Partial Audio Tapes
-				
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				ATTORNEYS
R0031457	STORM004	943.	96/L/L	John Samuel Brantley
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				GOVERNMENT/PUBLIC ORGANIZATION
	STORM004	945.	7/2/96	Board of Supervisors County of Los Angeles (From Joanne Sturges addressed to Michael
R0031471				
D0021175	STORM004	946.	7/11/96	Las Virgenes Municipal Water District (From James E. Colbaugh addressed to Mr. Keeton & members)
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R0031476	STORM004	947.	7/12/96	South Bay Association of Chamber of Commerce (From John Parsons addressed to Chairman Jack Coe)
R0031477	STORM004	948.	96/11//	Dominic L. Cortese, Assemblyman from 23rd District - addressed to Robert P. Ghirelli
R0031480	STORM004	949.	5/30/96	Assembly California Legislature, Wally Knox: addressed to Governor Pete Wilson
R0031482	STORM004	950.	96//S/9	Senate California Legislature, Tom Harden: addressed to Chairman Keston and Members of the Regional Board
R0031483	STORM004	951.	6/14/96	Board of Supervisors County of Los Angeles, Zev Yaroslavsky -addressed to Chairman Michael Keston
D0031185	STORM004	952.	96/18/96	State Board of Equalization (From Brad Sherman - addressed to LA Regional Board Member Mr. Dane)
R0031499	STORM004	953.	7/2/96	Assemby California Legislature, Richard Katz: Democratic Floor Leader -addressed to Michael

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<b>VOLUME 7:</b> Comments on Los Angeles County Storm Water NPDES Permit July, 1996	Keston	Assemby California Legislature, Antonio R. Villarigosa: Forty-Fifth District - addressed to Michael Keston and Members of Board	Southern California Edison	California Contract Cities Association	Los Angeles County Boards of Real Estate	Pacific Enterprises	South Bay Association of Chambers of Commerce	Various Comment Letters: May 13 - July 12	ENTS FROM CITIES AND COUNCIL RESOLUTIONS	Alhambra	Azusa	Baldwin Park	Burbank	Calabasas	Carson	Cerritos	Commerce	Cudahy	Downey	Duarte	El Segundo	Glendale (with Fax transmittal 7/10/96)	Glendora	I-lawthorne	Irwindale	Lakewood	Long Beach	Los Angeles	Lynwood		
DATE		7/5/96	96/6/L	7/15/96	7/12/96	7/12/96	7/12/96		COMMEN	7/8/96	96/1/L	7/8/96	96/6/L	7/15/96	7/2/96	7/15/96	96/6/L	7/12/96	7/9/96	96/01/L	7/2/96	219/96	7/10/96	7/12/96	7/12/96	7/11/96	7/15/96	96/11//	7/12/96		
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VOLUME 7: Comments on Los Angeles County Storm Water NPDES Permit July, 1996									-				Comments from the Cities of Carson, West Hollywood, Westlake Village, Norwalk, Cudahy, La Habra Heichts San Marino, Diamond Bar, Rolling Hills, and Artesia	ved after 7/9/96 Summary	tBay	<b>VOLUME 8:</b> Summary of Video Tapes	A. Video tape (Itape) on storm water pollution and the Tentative mayors and used in staff presentations to elected officials. Permit mailed out to mayors and used in staff presentations to elected officials.		C. Video taped recording (3 tapes) of the July 15, 1996 Regional Board Hearing (transcripts in the administrative record item 1404)		<b>VOLUME 9:</b> Regional Board Correspondence 1996	Regarding Public Records Act Request attached to the letter		
VOLUME 7: Commen	Monrovia	Pico Rivera	Pomona	Redondo Beach	Rosemead	San Dimas	San Gabriel	San Marino	Santa Fe Springs	Santa Monica	Torrance	Whittier	Comments from the Cities of Ca Habra Heights San Marino. Dia	List of Resolutions/Letters Received after 7/9/96 Summary	Petition for a Clean Santa Monica Bay	VOLUME	pe (Itape) on storm water pollutio cials. Permit mailed out to mayor	B. Mailing List for Video Tape A	eo taped recording (3 tapes) of the Julitem 1404)		VOLUME	Beverly O'Neill, Marior for City of	Long Beach -	addressed to Maribel Marin
DATE	7/3/96	7/15/96	7/11/96	7/3/96	7/10/96	96/6/L	7/12/96	7/10/96	7/17/96	96/6/L	7/11/96	7/15/96	7/15/96	7/14/96	7/15/96		A. Video ta elected offi	B. Mailing	C. Video ta record item	,	DATE		96/01/L	
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	VOLUME 9: Regional Board Correspondence 1996	SCAG	· · ·				Public Notice		Changes to LA County Municipal Storm Water Permit Requested	By SGVCOG		Update on status of Permit	Α.			Re: Participation in reviewing the LA County Municipal Storm	Water Permit		Proposed County of LA Municipal NPDES Storm Water	Discharge Permit			Tentative NPDES Municipal Storm Water Discharge Permit for	Los Angeles County					LA County Storm Water Workshop at City of LA Board of Public	Works Hearing Room (June 18, 1996)				
	NOLU	Councilmember Joseph	Dawidziak from	Catherine Tyrrell,	Assistant Executive	Officer	California Newspaper	Service Bureau, Inc.	Memo from Catherine	Tyrrell addressed to Bette	Worthman (SCAG)	Honorable Dominic L.	Cortese, Member of the	State Assembly from	Catherine Tyrrell	Letter from CRWQCB	addressed to Mayor and	City Council Members	Beatrice J.S. LaPisto-	Kirtley, President of San	Gabriel Valley Council of	Governments	Amy L. Glad,	Executive Vice	President, Building	Industry Assoc. of	Southern California,	Inc.	Michael Kantor, Storm	Water Management	Division, Board of Public	Works, City of Los	Angeles	
	DATE			7/5/96			715106	ncicii -		7/5/96			90/2/2	061011			6/28/96			2018012	0/70/0				6/28/96		•				6/21/96	•		
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R0031779	STORM004	1008.	6/21/96	John J.Agoglia, President of NBC Enterprises	Response to Support Letter for Permit
R0031780	STORM004	1009.	6/21/96	J.P. Ellman, President. Board of Public Works, City of Los Angeles	LA County Storm Water Workshop at City of LA Board of Public Works Hearing Room June 18. 1996
R0031781	STORM004	1010.	96/11/9	Interested Parties	Tentative Municipal Storm Water Permit for the County of Los Angeles
R0031785	STORM004	1011.	96/11/9	Rufus C. Young, Jr., Burke, Williams, & Sorensen	Response to Development of Provisions for the Municipal Permit
R0031786	STORM004	1012.	5/23/96	J.P. Ellman, President, Board of Public Works, City of Los Angeles	Use of City of LA Board of Public Works Hearing Room for Public Workshop on June 18, 1996
R0031787	STORM004	1013.	5/23/96	Interested Parties	Enclosed Documents: Response-to-Comments and Revised Tentative Permit for Review
R0031961	STORM004	1014.	5/22/96	Robert H. Sulnick, Executive Director, American Oceans Campaign from Michael Keston	Response to Mr. Sulnick's Previous Support Letters of Permit
R0031963	STORM004	1015.	5/14/96	Jim Noyes, LA County Department of Public Works	Message for Carlos Urrunaga having Phoned Joanne Sturges regarding the Use of County Board of Supervisors Hearing Room
R0031964	STORM004	1016.	5/13/96	Joanne Sturges, Executive Officer, County of LA Board of Supervisors	Use of County of LA Board of Supervisors Hearing Room for Public Hearing
R0031965	STORM004	1017.	5/2/96	CRWQCB - From Catherine Tyrrell addressed	Municipal Storm Water Permit: Revised Draft of Development Planning/ Construction Section.

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FAGE#	CD V0I.	TIEM	DALE		VULUME 9: Regional Board Correspondence 1990
				to Amy Uiad	
				Harry W. Stone, Director	National Pollutant Discharge Elimination System Municipal
R0031972	STORM004	1018.	4/29/96	of Department of Public	Storm Water Discharge Permit for Los Angeles County and Co-
				Works	Permittee (NPDES No. CA0061654)
				Donald Wolfe	Proposed NPDES Permit Adoption Schedule
R0031974	STORM004	1019.	4/23/96	(LACDPW) - addressed	
		-		to Catherine Tyrrell	
	VUONACTO		115106	Mark Pisano, Executive	1 996 Association of Governments General Assembly, Standing
KUU319/0	21 UKINI04	1020.	· 06/C/+	Director (SCAG)	Committee on Planning
		÷.,		Carl's Jr.	Re: Suggested Restaurant Checklist items to assist in
				Environmental	controlling materials from entering storm drains.
R0031988	STORM004	1021.	4/4/96	Specialist, Mike Kissel	
				letter - Addressed to	
			,	Frank Kuo, LACDPW	
	CTCDM004	1000	•	List and addresses to city	Mailing List
KUUS 1808				Mayors	
					REGARDING NATIONAL POLLUTANT
				LETTERS SENT FROM	<b>DISCHARGE ELIMINATION SYSTEM MUNICIPAL</b>
		•		CRWQCB TO:	STORM WATER FOR LA COUNTY (NPDES CA0061
					(554, CI (948)
R0031992	STORM004	1023.	4/3/96	Hon. Beverly O'Neil, Mayor	City of Long Beach
R0032005	STORM004	1024.	4/3/96	Hon. Rita Velenzuela, Mayor	City of Monterey Park
R0032008	STORM004	1025.	4/3/96	Hon. John Heilman, Mayor	City of West Hollywood
R0032011	STORM004	1026.	4/3/96	Hon. Carl Boyer, Mayor	City of Santa Clarita
R0032014	STORM004	1027.	4/3/96	Hon. Albert G. Perez, Mayor	City of South El Monte
	FOOMOCTO		20/01	Hon. Albert T. Robles,	City of South Gate
		1020.	06/04	Mayor	
R0032020	STORM004	1029.	4/3/96	Hon. Tom Breazeal, Mayor	City of Temple City
	STOPMODA	1030	20/2/1	I-Ion. Dorothy Ramirez,	City of Maywood
CZUZCUU1			061014	Mayor	
R0032026	STORM004	1031.	4/3/96	Hon. Robert T. Barlett,	City of Monrovia
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VOLUM	Mayor	Hon. Stephen Alexander, Mayor	Hon. George A. Maurer, Mayor	Hon. Isidro Menezes, Mayor	Hon. Sara Hanlon, Mayor	Hon. Thomas M. O'Leary, Mayor	Hon. Algird Leiga, Mayor	Hon. Paul W. Bowlen, Mayor	Hon. Mark Flewelling, Mayor	Hon. Randy Boıngaars, Mayor	Hon. Fidel A. Vargas, Mayor	Hon. Thomas E. Jackson, Mayor	Hon. Carol Liu, Mayor	Hon. Paul H. Richards II, Mayor	Hon. Talmage V. Burke, Mayor	Hon. Mary B. Young, Mayor	Hon. George Cole, Mayor	Hon. Arnold Alvarez- Glasman, Mayor	Hon. Judith Brennan, Mayor	Hon. Wayne Piercy, Mayor	Hon. Jon. H. Blickenstaff, Mayor
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<b>VOLUME 9:</b> Regional Board Correspondence 1996	City of Whittier	City of Santa Fe Springs	City of San Dimas	City of Pomona	City of Hidden Hills	City of La Puente	City of La Mirada	City of La Habra Heights	City of Torrance	City of Irwindale	City of Paramount	City of Pico Rivera	City of Hawaiian Gardens	City of Industry	City of Duarte	City of Glendora	City of Downey	City of Diamond Bar	City of Gardena	City of Hawthorne	City of Inglewood	City of Lawndale	City of Lomita	City of Agoura Hills	City of Calabasas	· · ·
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	VOLUM	Mayor	Hon. Joan House, Mayor	Hon. James Emmons, Mayor	Hon. Michael I. Mitoma, Mayor	Hon. Godfrey Pernell, Mayor	Robert Beck, Mayor	Hon. Paul Rosenstein, Mayor	Hon. June Wentworth, Mayor	Hon. Steve Herfert, Mayor	Hon. Leonis C. Malburg, Mayor	Hon. John Bowler, Mayor	Hon. Richard J. Riordan, Mayor	Hon. Steve Barnes, Mayor	Hon. Raymond Mattingly, Mayor	Hon. Marilyn Lyon, Mayor	Hon. Brad Parton, Mayor	Hon. Rick Reyes, Mayor	Hon. Steven Gourley, Mayor	Hon. Allan Alexander, Mayor	Hon. Carl Jacobson, Mayor	Hon. Maria Chacon, Mayor	Hon. Dave Golonski, Mayor	Hon. Artennio E. Nevarro, Mayor	Hon. Omar Bradley, Mayor
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				LETTERS SENT	REGARDING:
				FROM CRWQCB TO:	
R0032260	STORM004	1108.	3/22/96	Donald Wolfe, Deputy Director of Dept. of Public Works	Report of Storm Water Monitoring Under NPDES Municipal Storm Water Discharge Permit for LA County (NPDES No. CA0061 654, Cl 6948)
R0032264	STORM004	1109.	3/20/96	John. R. Mundy, Utilities Manager	Los Angeles County Municipal Storm Water Discharge Permit Schedule Change
R0032266	STORM004	1110.	3/20/96	Marcelino M. Martinez, P.E. Municipal Civil Engineer	Los Angeles County Municipal Storm Water Discharge Permit Schedule Change
R0032268	STORM004	1111.	3/20/96	Robert Rugroden, Office Engineer	Los Angeles County Municipal Storm Water Discharge Permit Schedule Change
R0032270	STORM004	1112.	3/20/96	Gerald E. Greene, D. Envr., Associate Planner	Los Angeles County Municipal Storm Water Discharge Permit Schedule Change
	-			LETTERS SENT BY CARLOS	Los Angeles County Municipal Storm Water Permit Draft Handbook
-				URRUNAGA	
R0032272	STORM004	1113.	2/16/96	Elroy Keipke, City Engineer	City of Agoura Hills
R0032273	STORM004	1114.	2/16/96	Amy Glad	Building Industry Association of Southern California

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	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96	2/16/96		
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R0032344	STORM004	1139.	12/22/95	Pam Keyes, Department of Public Works	City of Culver City
R0032345	STORM004	1140.	12/22/95	Fullmer Chapman, Department of Public Works	City of La Canada Flintridge
R0032346	STORM004	1141.	12/22/95	Cynthia Kurtz	City of Pasadena
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R0032348	STORM004	1143.	12/22/95	Nancy Delange, Department of Public Works	City of Santa Clarita
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R0032352	STORM004	1147.	12/22/95	Dee Zinke	Building Industry Association of LA/Ventura
R0032353	STORM004	1148.	12/22/95	Amy Glad	Building Industry Association of LA/Ventura
R0032354	STORM004	1149.	12/22/95	Melissa Beard	California Environmental Associates
R0032355	STORM004	1150.	12/22/95	Gail Feuer	Natural Resources Defense Council
R0032356	STORM004	1151.	12/22/95	Mark Gold	Executive Director of Heal the Bay
R0032357	STORM004	1152.	12/18/95	All Permittees and Interested Parties	Regarding Draft of Waste Discharge Requirements for the Discharge of Storm Water in Los Angeles County
R0032470	STORM004	1153.	10/25/95	CRWQCB to Public Works Officials and Interested Parties	Los Angeles County Municipal Storm Water Discharge Permit (NPDES No. CA0061654, Cl 6948) - Schedule Change

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	VULUMIE IN: Regional Board Correspondence 1995	Review of Draft NPDES Permit			orks   Los Angeles County Municipal Storm Water Discharge Permit (NPDES No.0061 654, CI 6948)	Draft Monitoring Program			Proposed Monitoring Program for Draft NPDES Permit				of General Meeting to Discuss Draft NPDES Pennit		· · ·	ater Order No. 95-XXX, Waste Discharge Requirements for		the County of Los Angeles	General meeting to discuss new NPDES Permit development				comments on July 21, 1995 Draft Permit	ng Review of Environmental Documents Attachment of				blic Phase II and III Monitoring Program		: Tyrrell	Review of Revised Program Management Chapter for the new	
<b>7</b> 13		Dept. of Public Works	addressed to Catherine	Tyrrell	CRWQCB to Public Works Official	Sidley & Austin	Letter - address to	Catherine Tyrrell	LA County Dept. of	Public Works -	addressed to	Catherine Tyrrell	CRWQCB - to County of	Los Angeles Municipal	Permittees	California Regional Water	Quality Control Board		Gary Hildebrand from	Dept. of Public Works	addressed to all	Permittees	Natural Resources Defense	Dave Yamahara Planning	Division from the City of	Malibu - addressed to	Carlos Urrunaga	LA County Dept. of Public	Works -	Addressed to Catherine Tyrrell	LA County Dept. of	
	DALE		10/17/95		10/12/95		10/7/95			20/07/05	CE11716			9/15/95			9/15/95			0/5/05	C6/C16		8/4/95			66/97/1	•		6/14/95		5/30/95	•
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				Addressed to Dr.	
				Robert P. Ghirelli	
				LA County Dept. of Public	Review of Revised
		11/5		Works -	Illicit Discharge Chapter for the New NPDES Storm Water
K0032617	S I UKINU4	.coll	C6/C7/C	Addressed to Dr. Robert P. Ghirelli	Permit
				State Water Resources Control	County of Los Angeles Stormwater Permit
				Board -	)
				addressed to Gail Feuer	
K0032627	SI URMUU4	11 66.	64/92/6	(NRDC) and	
				Howard Gest (Sidley &	
				Austin)	
				Frank Kuo (LA County Dept.	NPDES Legal Notice
	-			of Public	- -
R0032629	STORM004	1167.	5/18/95	Works) - addressed to All	
				Phase II Co-	
				Permittees	
				LA County Dept. of Public	Return of application fee for Stormwater Permit Renewal
D0000604	VUUNACTS	1160	50/2/5	Works -	
		1100.	neinin	addressed to Dr. Robert P.	
				Ghirelli	
				CRWQCB - addressed to	Trash and debris in Los Angeles and Long Beach Harbors
				Kenneth M.	
DUNSDER	CODMOOTS	1160	1/1/05	Graham, Chairman of Los	
40070001			1011714	Angeles/Long	
				Beach Harbor Safety	
				Committee	
		t i		LA County Dept. of Public	National Pollutant Discharge Elimination System Permit No.
2000000	NOMACT?	1170	1110105	Works -	CA006 1654 -3 rd Quarter Progress Report
		11/0.	10/77	addressed to Dr. Robert P.	
				Ghirelli	

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CRWQCB - addressed to95County of Los Angeles,Department of PublicWorksCounty of Los Angeles,Department of PublicWorksLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLos Angeles/Long BeachHarbor Safety CommitteeLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLos Angeles/Long BeachHarbor Safety CommitteeLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliLA County Dept. ofPublic Works -addressed to Dr.Robert P. GhirelliRobert P. GhirelliPostAddressed to Dr.Robert	CD Vol.	ITEM ]	DATE	VOLUME	<b>VOLUME 10:</b> Regional Board Correspondence 1995
<ul> <li>95 Harry Stone, Director of Harry Stone, Director of County of Los Angeles, Department of Public Works</li> <li>95 County Dept. of Public Works -</li> <li>95 addressed to Dr. Robert P. Ghirelli</li> <li>95 LA County Dept. of Public Works -</li> <li>95 LA County Dept. of Public Works -</li> </ul>		<u> </u>		CRWQCB - addressed to	Approval of Phase II and III Monitoring Sites (NPDES No.
<ul> <li>95 County of Los Angeles,</li> <li>95 County Of Los Angeles,</li> <li>95 Department of Public Works</li> <li>95 Jublic Works -</li> <li>95 addressed to Dr.</li> <li>96 Rubbic Works -</li> <li>97 Public Works -</li> <li>98 Addressed to Dr.</li> <li>99 Addressed to Dr.</li> <li>99 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>91 Public Works -</li> <li>92 Addressed to Dr.</li> <li>93 Addressed to Dr.</li> <li>94 Public Works -</li> <li>95 Addressed to Dr.</li> <li>96 Addressed to Dr.</li> <li>97 Public Works -</li> <li>98 Addressed to Dr.</li> <li>99 Addressed to Dr.</li> <li>99 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> <li>91 Addressed to Dr.</li> <li>92 Addressed to Dr.</li> <li>93 Addressed to Dr.</li> <li>94 Public Works -</li> <li>95 Addressed to Dr.</li> <li>95 Addressed to Dr.</li> <li>96 Addressed to Dr.</li> <li>97 Addressed to Dr.</li> <li>98 Addressed to Dr.</li> <li>98 Addressed to Dr.</li> <li>99 Addressed to Dr.</li> <li>90 Addressed to Dr.</li> </ul>				Harry Stone, Director of	0061654, CI 6948, Board No. 90-079)
Department of Public Works LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli La County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli La County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli	1171.		4/14/95	County of Los Angeles,	
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<ul> <li>addressed to Dr.</li> <li>Robert P. Ghirelli</li> <li>LA County Dept. of</li> <li>Public Works -</li> <li>addressed to Dr.</li> <li>Robert P. Ghirelli</li> <li>LA County Dept. of</li> </ul>	1177 3	~	115/05	Public Works -	079 Action Item Progress Report
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addressed to Dr. Robert P. Ghirelli 95 LA County Dept. of	1178		3/13/05	Publič Works -	Stormwater Permit Program
Robert P. Ghirelli LA County Dept. of				addressed to Dr.	
LA County Dept. of	-			Robert P. Ghirelli	
	1179.		3/13/95	LA County Dept. of	Boundary Correction for the Santa Clara River Watershed

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				addressed to Catherine Tyrrell	
R0032701	STORM004	1180.	2/23/95	NPDES Storm Water Permit Monitoring Program Meeting	Agenda and Attached Monitoring Requirements
R0032718	STORM004	1181.	2/15/95	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli	NPDES Permit No. CA0061654. CI 6948, Board No. 90-079 Action Item Progress Report
R0032726	STORM004	1182.	2/08/95	NRDC letter addressed to Mark Pumford, CRWQCB	New Municipal Permit
R0032729	STORM004	1183.	2/01/95	Illegal dumping complaint form faxed from Frank Kuo (LACDPW) to Carlos Urrunaga	
R0032731	STORM004	1184.	1/31/95	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli	Confirmation of January 10, 1995 meeting
R0032732	STORM004	1185.	1/17/95	Agenda	NPDES Storm Water Permit Renewal Meeting Representatives of Santa Monica Bay Cities
R0032734	STORM004	1.186.	1/13/95	CRWQCB - addressed to Jim Noyes, LA County Dept. of Public Works	NPDES Municipal Storm Water Discharge Permit. NPDES renewal application letter of receipt (NPDES No. CA0061 654, Cl 6948)
R0032736	STORM004	1187.	1/12/95	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelli	NPDES Permit No. CA0061 654, Cl 6948, Board No. 90-079 Action Item Progress Report
R0032740	STORM004	1188.	1/4/95	LA County Dept. of Public Works	Listing of Common Non-Stormwater Discharge to the Storm Drain System

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R0032744	STORM004	1189.	1/4/95	CRWQCB - addressed to Jim Noyes, LA County Dept. of Public Works	NPDES Municipal Storm Water Discharge Permit (NPDES No. CA0061 654, Cl 6948)
R0032746	STORM004	1190.	1/95	Report addressed to Natural Resources Defense Council , Los Angeles Office	Recommended Program for Urban Runoff Pollutant Control for Los Angeles County and Co-Permittees Subject to Storm Water NPDES Permit
		NOI	VOLUME 11:	II: REGIONAL BOARD CORRESPONDENCE 1990-1994	ESPONDENCE 1990-1994
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	-			1994 CORRESPONDENCE	NCE
R0032770	STORM004 [191.	.1191.	12/28/94	LA County Dept of Public Works -addressed to Dr. Robert P. Ghirelli (along with attachments)	NPDES Municipal Storm Water Permit No. CA0061654-2nd Quarter Progress Report
				I A County Dent of	NPDFS Dermit - Report of Waste Discharge Submittal
R0032795	STORM004	1192.	12/20/94	Public Works - addressed to Dr	
				Robert P. Ghirelli	
				LA County Dept. of	NPDES Permit No. CA0061 654, Cl 6948-Action Item
R0032797	STORM004	1193.	12/14/94	Public Works - addressed to Dr.	Progress Report
			-	Robert P. Ghirelli	
R0032800	STORM004	1194.	12/13/94	CRWQCB - addressed to Gary Hildebrand	Watershed Boundaries
				LA County Dept of	NPDES Permit - Action Item Progress Report
R0032801	STORM004	1195.	11/15/94	Public Works - addressed to Dr.	· · · · · · · · · · · · · · · · · · ·
				Robert P. Ghirelli	
R0032804	STORM004	1196.	11/1/94	Heal the Bay	Comments on Los Angeles County Dept. of Public Works Report of Waste Discharge (ROWD)
R0032809	STORM004	1197.	10/31/94	CRWQCB - addressed to Jim Noyes, Chief Deputy Director	Draft Report of Waste Discharge/Storm Water Management Program Plan

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R0032841	STORM004	1198.	10/24/94	CRWQCB - addressed to Gary Hildebrand	Final Date of Submittal of Report of Waste Discharge/Storm Water Management Program Plans
R0032842	STORM004	1199.	10/13/94	LA County Dept. of Public Works	NPDES Permit - 1 st Quarter Progress Report
	-			Letter from LADPW	
R0032866	STORM004	1200.	10/06/94	requesting digital and tabular data for NPDES	
				LA County Dept. of	County of Los Angeles NPDES Permit
R0032867	STORM004	1201.	9/22/94	Public Works -	
				Robert P. Ghirelli	
				CRWQCB - addressed to	Monitoring Requirements Under Board Order No. 90-079
R0032869	STORM004	1202.	9/13/94	Jack Ainsworth from Cal.	Installation of an Automated Water Sampler at Malibu Creek
				Coastal Commission	
		•		LA County Dept. of	Municipal Storm Water Permit - Response to May 4, 1994
R0032872	STORM004	1203	9/13/94	Public Works -	letter
	)			addressed to Dr.	
				Kobert P. Uniffeli	
			F () ( C L) ()	CRWQCB - addressed to	Tentative Cease and Desist Order for County of Los Angeles
KUU328/3		1204.	46/C1/6	Harry w. Stolle, Lifector of LA County DPW	
				LA County Dept of	Municipal Storm Water Permit Preparation of Report of
R0032883	STORM004	12.05	7/26/94	Public Works -	Waste Discharge (ROWD)
	)			addressed to Mark	
				Pumford	
				CRWQCB - addressed to	Section 401 Water Quality Certification Waiver - Malibu
R0032885	STORM004	1206.	7/20/94	Harry W. Stone and Brain	Creek Monitoring Station Project, Malibu Creek, City of
				Sasaki from DPW	Malibu, Los Angeles County
R0032887	STORM004	1207.	7/19/94	LA County Dept. of Public Works -	NPDES Permit - Fourth Year Annual Report

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OCORMO041212. $3/9/94$ addressed to Dr.STORM0041212. $3/9/94$ David Yamahara, AssistantSTORM0041213. $1/13/94$ Deputy Director of DPWSTORM0041213. $1/13/94$ Deputy Director of DPWSTORM0041213. $1/13/94$ Bavid Yamahara, AssistantSTORM0041213. $1/13/94$ Beputy Director of DPWSTORM0041213. $1/13/94$ Beputy Director of DPWISTORM0041213. $1/13/94$ STORM0041214. $12/21/93$ Bines A. Noyes (Deputy Director of LA County Director of LA County Director of LA County Director of LA County Director of LA CountySTORM0041215. $10/21/93$ LA County Dept of Public Director of LA County	DUNSDAR	STODMOOA	1101	10/91/2	Public Works -	Attachment, Title 20
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STORM004     1214     1214       STORM004     1215     10/21/93     DPW)       Works-addressed to Dr.	10022004	CTODM001		10/10/01	James A. Noyes (Deputy	Water/Urban Runoff Monitoring Program (NPDES No.
STORM004     1215.     10/21/93     LA County Dept of Public       Works-addressed to Dr.	17000000			06117171	Director of LA County	CA0061 654, CI 6948)
STORM0041215.10/21/93LA County Dept of PublicWorks-addressed to Dr.		L			DPW)	
	R0033024	STORM004	1215.	10/21/93	LA County Dept of Public Works addressed to Di-	NPDES Permit No. CA0061654, (CI 6948) - Quarterly Description Description (711,02, 0/1,02)
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				11. DECTONAL BOARD COBRESSONDENCE 1000 1001	SEDANDENCE 1000 1004
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				Robert P. Ghirelli (with attachments)	
R0033077	STORM004	1216.	9/16/93	CRWQCB - In-house Memo	Caltrans Non-Compliance Meeting on 9/15/93
R0033078	STORM004	1217.	6/12/63	CRWQCB - Letter addressed to Rod Kubomoto LA County DPW	Sample Letter Regarding Compliance with Requirement to Obtain an Industrial Storm Water Permit
R0033086	STORM004	1218.	8/27/93	CRWQCB - addressed to Rod Kubomoto, LA County DPW	Reply to Request for all NPDES Permitted Discharges in Upper Los Angeles and Upper San Gabriel River Drainage Basins
R0033087	STORM004	1219.	8/16/93	LA County Dept of Public Works - addressed to Dr. Robert P. Ghirelli	Municipal Storm Water Permit Confirmation of Discussion on Second Year Compliance Review
R0033091	STORM004	1220.	7/29/93	County of Los Angeles - DPW	Transmitting copy of letter dated 7/28/93 from LA County Board of Supervisors Chair to Mayor Ciraulo regarding the 24- Hour Hotline for Illegal Discharges and Dumping into Storm Drains
R0033094	STORM004	1221.	7/28/93	LA County Dept of Public Works - addressed to Dr. Robert P. Ghirelli	Request for copies of all NPDES Permits and most recent associated monitoring data in the Upper LA and San Gabriel River Drainage Basins
R0033095	STORM004	1222.	7/19/93	CRWQCB - Agenda	366th Regular Meeting (Slide Presentation of Second Year Compliance with LA County Storm Water Permit
R0033110	STORM004	1223.	7/8/93	LA County Dept of Public Works - addressed to Dr. Robert P. Ghirelli	Comment on the Second Review of Phase I. Year Two Compliance with NPDES Permit No. CA0061654
R0033112	STORM004	1224.	6/30/93	LA County Dept. of Public Works -addressed to Environmental Coordinators,	Compliance with and Enforcement of Industrial Activities Permit

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•		IOA	VOLUME 11: ]	11: REGIONAL, BOARD CORRESPONDENCE 1990-1994	SPONDENCE 1990-1994
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				list of addresses attached	
				CRWQCB - Addressed to	Municipal Storm Water Permit for Los Angeles County -
R0033119	STORM004	1225.	6/17/03	Thomas A. Tidemanson,	Review of Second Year Compliance (Staff review dated 6/1
				Director of DPW, LA County	4/93 attached)
	•			CRWQCB - Addressed to	Inadequacies of Caltrans compliance with Waste Discharge
R0033135	STORM004	1226.	6/4/93	Jerry Baxter of Caltrans	Requirements for Storm Water/Urban Runoff Discharge for Los
					Angeles County
				LA County Dept. of Public	NPDES Permit - Quarterly Progress Report (1/1/93 to 3/1/93)
R0033139	STORM004	1227.	4/29/93	Works	
				addressed to Robert P. Ghirelli	
				LA County Dept. of Public	Municipal Stormwater Permit for Los Angeles County -
R0033150	STORM004	1228.	2/8/93	Works	Comments on CRWQCB's Review of Second-Year Compliance
				addressed to Robert P. Ghirelli	-
	e.			USEPA	Comments on Staffs evaluation of Los Angeles County's
R0033158	STORM004	1229.	1/22/93		compliance with the second year requirements of Stormwater
-					NPDES permit
				CRWQCB - addressed to	Municipal Storm Water Permit for Los Angeles County - Review
D0033160		1720	1/11/03	Thomas Tidemanson,	of Second Year Compliance and Notice of Workshop
		.0621	CC/11/1	Director of LA County	
-				DPW	
R0033179	STORM004	1231.	1/11/93	LA County DPW	Ballona Creek Cleanup Task Force - BMP List (Final Draft)
R0033183	STORM004	1232.	1/5/93	LA County DPW	Storm Water NPDES Permit - Quarterly Progress Report (Oct. 1
		_			to Dec. 31, 1992)- Attached are Phase I and II
	•			<b>1992 CORRESPONDENCE</b>	NCE
				County of Los Angeles, Chief	Formation of Ballona Creek Cleanup Task Force
10033190	STORMODA	1733	11/10/02	Administrative Officer, memo	
				to LA County	
			1	Supervisors	
R0033198	STORM004	1234	11/13/02	Regional Board in-house memo	Ballona Creek Cleanup Task Force - Storm Drain Committee
	)		7/10/11/1		Meeting
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PACE #	CD Vol	ITEM		FROM	COMMENTS
				Memo from Michael	Ballona Creek Cleanup Task Force Meeting
R0033201	STORM004	I 235.	10/30/92	Lyons - Regional Board	
				In-house memo	
R0033203	STORM004	1236.	10/6/92	LA County, Dept. of Public Works	NPDES Permit No. CA0061654, (CI6948) Quarterly Progress Report (July 1 to Sept 30, 1992)
				Minutes of the Board	Formation of the Ballona Creek Cleanup Task Force
R0033205	STORM004	1237.	9/22/92	of Supervisors, County	
				of Los Angeles	
				Agenda for breakfast	Focus on Urban Runoff Impact of Stormwater Regulation on
				Workshop for Local	Local Authorities
R0033207	STORM004	1238.	7/8/92	Government Officials held	
				by LA County Dept. of	
				Public Works	
R0033210	STORM004	1239.	7/1/92	LA County Dept. of Public Works	NPDES Permit No. CA0061 654 (Cl 6948)-Second Year Report
				Heal the Bay addressed to	Comments on proposed additional Best Management Practices
	-			Jim Noyes Waste	(BMPS)
R0033212	STORM004	1240.	6/17/92	Management Division LA	
				County Dept. of Public Works	
R0033216	STORM004	1241.	4/23/92	Xavier Swamikannu, CRWOCB	Compliance Inspection Report (CA0061 654)
0100000	POMOCTS		01/1/2	LA County Dept. of Public	NPDES Permit No. CA0061 654 (CI 6948)-Quarterly
KUU332 10		1242.	114/94	Works	Progress Report (1/1/92 - 3/1/92)
				CRWQCB -	LA County DPW Application for Storm Drain
R0033220	STORM004	1243.	1/31/92	addressed to Pamela	Construction in Coastal Zone
				Ellieisuli, Cai. Cuastai Commission	•
				CRWOCB - Agenda	353rd Regular Meeting, Staff Report on Review of First Year's
R0033221	STORM004	1244.	76/17/1		compliance with the Municipal Storm Water Permit
R0033232	STORM004	1245.	1/22/92	LA County Dept. of	Storm Discharge Permit - NPDES Permit No. CA0061654 (Cl

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			VULUME II: I	II: KEUJUNAL BUAKD CUKKESPUNDENCE 1990-1994	SPUNDENCE 1990-1994
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				Public Works -	6948): Early Action Best Management Practices (BMP) Plan
				addressed to Dr.	Submittal
				Robert P. Ghirelli	
				LA County Dept. of	NPDES Permit No. CA0061654 (Cl 6948)-Quarterly Progress
D0033340	STORM004	1746	177/07	Public Works -	Report (Oct. 1 to Dec.31, 1998)
6430000		1240.	11 441 74	addressed to Dr.	
			2	Robert P. Ghirelli	
				CRWQCB - addressed to	Municipal Stormwater Permit for Los Angeles County
R0033757	STORMONA	2101	1/15/02	Thomas A. Tidemanson,	(NPDES No. CA0061654, CI6948)First Year Compliance
			761011	Director LAC Dept. of	Review and Notice of Workshop
	•			Public Works	
	-			1991 CORRESPONDENCE	ICE
DU0007E0	CTODMOD/	0101	10/2011	Proof of Publication - Daily	Early Action of BMP's Plan
RU200UN	31 ONN004	1240.	1610711	News and Daily Breeze	
				LA County, Dept. of	NPDES Permit No. CA0061 654 (Cl 6948)-Quarterly
B0033261	STORMOON	1740	10/1/11	Public Works -	Progress Report (July 1 to Sept. 30, 1991)
				addressed to Dr.	
				Robert P. Ghirelli	
-	-			LA County, Dept. of	NPDES Permit No. CA0061 654 -First Year Report (July 1, 1
D0033764	CTOBMOON	1050	10/31/2	Public Works -	990 to June 30, 1991)
		.0021		addressed to Dr.	
				Robert P. Ghirelli	
				LA County, Dept. of Public	Facilities Inspection Report of LA County, Dept of Public
R0033269	STORM004	1251.	6/13/91	Works (Xavier Swamikannu	Works
				Board Stuff)	
				CRWQCB - addressed to	Copies of NPDES Permit for Discharges to Santa Monica Bay
				John Mitchell (Waste	
R0033270	STORM004	1252.	6/13/91	Management Division, LA	
				County Dept. of Public	
				Works)	
R0033271	STORM004	1253.	5/8/91	LA County Dept. of	NPDES Permit No. CA0061 654, Cl 6948-Quarterly Progress
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				Public Works - addressed to Dr. Robert P. Ghirelii	Report (Jan. 1 to March 31, 1991)
R0033274 S	STORM004	1254.	2/19/91	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelii	NPDES Permit No. CA0061654, Cl 06948-Quarterly Progress Report (Oct. 1 to Dec. 31, 1990)
R0033277 S	STORM004	1255.	16/01/1	CRWQCB - addressed to John K. Mitchell (Waste Management Division, LA County Dept. of Public Works)	Standard Industrial Code Categories for Drainage Area Characterization (NPDES Permit No. CA0061654)
				<b>1990 CORRESPONDENCE</b>	VCE
R0033278 S	STORM004	1256.	12/20/90	USEPA to SWRCB	Approval of Los Angeles County Urban Runoff Public Education Campaign
R0033279 S	STORM004	1257.	12/19/90	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelii	NPDES Permit No. CA0061654 -Standard Industrial Code (SIC) Categories
R0033293	STORM004	1258.	10/16/90	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelii	NPDES Permit No. CA0061654 -Quarterly Progress Report (July 1 to Sept. 30. 1990)
R0033314 S	STORM004	1259.	7/25/90	LA County Dept. of Public Works - addressed to Dr. Robert P. Ghirelii	NPDES Permit No. CA0061654(CI6948)-request for copies of NPDES permits and most recent monitoring data
R0033316	STORM004	1260.	6/13/90	CR WQCB - addressed to Orville McCollom, LA County Department of	Tentative Waste Discharge Requirements - Stormwater/Urban Runoff Discharge Permit for County of Los Angeles (NPDES No. CA0061654)

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	)		DOCUMENT TITLE		
			A. STATEWIDE	WIDE	
			Comparison of the Storm Water	Presentation to the California Storm Water	July 1994
R0033337	STORM004	1262.	Program with the Hazardous Waste	Task Force	
			and Pollution Prevention Programs		
			1990 Water Quality	Division of Water Quality, State Water	1 990 & 1996
			Assessment (WQA)	Resources Control Board/Regional Board	
R0033374	STORM004	1263.			
			1996 Water Quality	Division of Water Quality, State Water	
R0033643	STORM004	1264.	Assessment	Resources Control Board/Regional Board	
			Changing the Counce of Colifornials	I I CEDA (The I indeen Museum)	1005
R0033798	STORM004	1265.	Changing ure course of Camorina's Water		C661
R0033835	STORM004	1266.	California's Rivers and Streams -	State Water Resources Control Board	
			Working Toward Solutions	Cal/EPA	
			Urban Runoff Technical Advisory	Prepared for the State Water Resources	November 1 994
R0033896	STORM004	1267.	Committee Report and	Control Board Nonpoint Source	
-		-	Recommendations	Management Program	
	•	•	California Storrn Water Best	Camp Dresser & McKee Larry Walker	March 1993
R0033974	STORM004	1268.	Management Practice Handbook -	Associates Uribe and Associates	
			Municipal	Resources Planning Associates	
R0034249	STORM004	1269.	California Storm Water Best	Camp Dresser & McKee Larry Walker	March 1993

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C	CD Vol.	ITEM	VOLUME 12 : Water Quality References DOCUMENT TITLE		PUBLICATION DATE
			Management Practice Handbook - Construction Activity	Associates Uribe and Associates Resources Planning Associates	
	STORM004	1270.	California Storm Water Best Management Practice Handbooks - Industrial/Commercial	Camp Dresser & McKee Larry Walker Associates Uribe and Associates Resources Planning Associates	March 1993
1	STORM004	1271.	ASIWPCA - EPA Transmittal of Draft of Non-point Source and Grants Guidance for 1997	ASIWPCA - EPA	Dec. 14, 1995
i i	STORM004	1272.	Fax - Review of SWPP's by Municipalities	EPA	July 26. 1995
1	STORM004	1273.	Alameda County - California Industrial/Commercial Storm Water Inspection Program Handbook		March 1996
1			B. FEDERAL	RAL	
1	STORM004	1274.	Final Report of the Nationwide Urban Runoff Program	EPA	December 1993
1	STORM004	1275.	National Water Quality Inventory 1992 Report to Congress	EPA	1992
1	STORM004	1276.	Selected Urban Storm Water Runoff Abstracts	EPA	July 1968 -June 1970
L	STORM004	1277.	Urbanization and Water Quality: A Guide to Protecting the Urban Environment	Terrene Institute Washington, D.C.	March 1994
	STORM004	1278.	Urban Runoff Management Information/Education Products	USEPA, Region 5 (Water Division. Wetlands and Watershed Section, Watershed Management Unit), USEPA Office of Wastewater Enforcement and Compliance Permit Division NPDES Program and Stormwater Section	R
<b></b> .	STORM004	1279.	Water: The Challenge of Cleansing	Pollution Program Affiliates, Inc.	April 7, 1994
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	PUBLICATION DATE		September 1993	1996	January 1993	March 1995			July 1992	January 1994	May 1991	7	August 17 100/		December 1995	
			USEPA - EPA(625/R-93/004) Office of Research and Development Washington, DC 20460	American Oceans Campaign	EPA/600/R-92-238 Office of Research and Development Washington, DC 20460	EPA 833-K-94-002 Office of Water (4203)			EPA 833-B-02-001 Office of Water (EN - 336)	EPA841-K-94-001 Office of Water (4503F)	USEPA Office of Water (WH - 533)		1 ISEPA (Draft)		USEPA 841-R-95-005 Office of	
	VOLUME 12 : Water Quality References DOCUMENT TITLE	Rivers and Oceans	Handbook on Urban Runoff Pollution Prevention and Control Planning	Estuaries on the Edge: The Vital Link Between Land and Sea	Investigation of Inappropriate Pollutant Entries into Storm Drainage Systems - A User's Guide	Storm Water Discharges Potentially Addressed by Phase II of The	National Pollutant Discharge Elimination System Storm Water	Program - Report to Congress	NPDES Storm Water Sampling Guidance Document	A State and Local Government Guide to Environmental Program Funding Alternatives	Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal	Waters - Under Section 6217 (g) of the Coastal Zone Act Reauthorization Amendments of	1990 Guidance Manual for Imalementino	Municipal Storm Water Management Proorams - (Chanter 1-4)	National Water Quality Inventory -	
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R0042527	STORM005	1298.	Hazardous and Toxic Wastes Associated with Urban Storm Water		<b>RB</b> 0661
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			Waste		
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R0042544	STORM005	1299	Housing, Bureau of the Census, U.S.		
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			Guidance manual for the Preparation	USEPA 505/8-91 -002 Office of Water	April 1991
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	Electronic Data Print Out	Alex Sheydayi, Chair of Management Committee	Tetra, Inc.	Los Angeles County Public Works	Tetra, Inc.	Roger Gorke with technical review by Mark Gold	Tetra Tech, Inc.	USDA - Natural Resources Conservation Service		Santa Monica Bay Restoration Project. The Coastal Watersheds		Santa Monica Bay Restoration Project	
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R0047175	STORM005	1319.	An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bv - Final Report	Santa Monica Bay Restoration Project	May 7, 1996
R0047458	STORM005	1320.	Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties	Adopted by CRWQCB, LA Region	June 13, 1994
R0047688	STORM005	1321.	Pathogens and Indicators in Storm Drains Within the Santa Monica Bay Watershed	Prepared for the Santa Monica Bay Restoration Project (Mark Gold, Melinda Bartlett, Charles McGee, and Greg Deets)	June 1992
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R0048071	STORM005	1325.	Water Quality and Beneficial Use Investigation of the Los Angeles River: Prospects for Restored Beneficial Uses	James M. Danza Environmental Studies M.S. California State University, Fullerton	June 1994
R0048205	STORM005	1326.	Southern California Coastal Water Research Project -Annual Report	Southern California Coastal Water Research Project	1987
R0048305	STORM005	1327.	Monitoring Southern California's Coastal Water	National Research Council	0661
R0048475	STORM005	1328.	Toxicity of Stormwater Runoff in Los Angeles County - Annual Report	Southern California Coastal Water Research Project	1988-1989

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R0049018	STORM005	1331.	Ozone Disinfection and Treatment of Urban Storm Drain Dry-Weather Flows: A Pilot Treatment Plant (Demonstration on the Renter Canyon Storm Drain Systems in Santa Monica)	Gerald E. Greene, Associate Civil Engineer Prepared for The Santa Monica Bay Restoration Project	June 1992
R0049133	STORM005	1332.	The Metropolitan Water District of Southern California - Annual Report	MWD - Fiscal year July 1, 1988 to June 30, 1989	1989
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R0049380	STORM005	1334.	Assessment of Storm Drain Sources of Contaminants to Santa Monica Bay - Vol. I (Annual Pollutant Loadings to Santa Monica Bay from Storm Water Runoff)	Michael K. Stenstrom Dept. of Civil and Environmental Engineering (UCLA) Eric W. Strecker (Woodward-Clyde Consultants)	May 1993
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R0049850	STORM005	1338.	Assessment of Storm Drain Sources of Contaminants to Santa Monica Bay - Vol. V (Toxicity of Dry Weather Urban Runoff)	Simlin Lau and Michael K. Stenstrom Dept. of Civil and Environmental Engineering (UCLA) Steven Bay from Southern California Coastal Water Research Project	June 14, 1994
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R0051024	STORM005	1345.	Marine Studies of San Pedro Bay, California Part 2-H - The Marine	Harbors Environmental Projects University of Southern California	October 1991 -June 1992
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R0051345	STORM006	1346.	Campaign -Chemical Contaminant Release into The Santa Monica Bay	School of Public Health	
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			Waterbodies, Wetlands, and their	Prem K. Saint, Ted L. Hanes. William J.	July 1993
			Beneficial Uses in the Los Angeles	Lloyd California State University, Fullerton	
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			Marine Studies of San Pedro Bay,	Dorothy F. Soule, Mikihiko Oguri, and	March 1991
			California, Part 20F - The Marine	Burton H. Jones Harbors Environmental	
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R0055055	STORM006	1367.	Analysis of Urban BMP Performance and Longevity - Final Report	Dept. of Environmental Programs, Metropolitan Washington, Council of Govt.	August 1 992
R0055287	STORM006	1368.	Riverside County Flood Control and Water Conservation District (NPDES Municipal Stormwater Application for Permit Renewal)	Flood Control District, County and Cities of Riverside County, Santa Ana Watershed	Januarys, 1995
R0055408	STORM006	1369.	Developing Successful Runoff Control Programs for Urbanized Areas	North Virginia Soil District, Fairfax Virginia	July 1, 1994
R0055507	STORM006	1370.	Actions Speak Louder than Legislation - Positive Experiences Provide Direction for Urban Runoff Management	Water Environment and Technology	January 1996
R0055511	STORM006	1371.	Stormwater Management Manual for the Puget Sound Basin - The Technical Manual	Washington State Department of Ecology	February 1992
R0056335	STORM006	1372.	A Current Assessment of Urban Best Management Practices - Techniques for Reducing Nonpoint Source Pollution in the Coastal Zone	Anacostia Restoration Team Department of Environmental Programs Metropolitan Washington Council of Governments	March 1992
R0056455	STORM006	1373.	1994 Puget Sound Water Quality Management Plan	Puget Sound Water Quality Authority	May 18, 1994
R0056744	STORM006	1374.	Urban Storm Drainage -Criteria Manual Vol. 3 (Best Management	Urban Drainage and Flood Control District Denver, Colorado	September 1992
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R0057133	STORM006	1376.	Urban Stormwater: An Overview for Municipalities	Public Works	December 1990
R0057140	STORM006	1377.	The Clock is Ticking to Comply with New Stormwater Regulations	Monica M. Oakley, and Carol L. Forrest	March 1991
R0057146	STORM006	1378.	The New Federal Stormwater Regulations	Public Works (City, County and State)	February 1991
R0057151	STORM006	1379.	Impervious Surface Reduction Study - Final Report	City of Olympia Dept. of Public Works - Water Resources Program	May 1995
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R0057414	STORM006	1382.	City and County of San Francisco Department of Public Works : Best Management Practices Study	Prepared by James M. Montgomery, Consulting Engineers, Inc.	August 1992
R0057738	STORM006	1383.	Thermal Impacts Associated with Urbanization and Stormwater Management, Best management Practices: Final Report	Prepared by John Galli, Department of Environmental Programs, Metropolitan Washington Council of Governments	December 1990
R0057936	STORM006	1384.	Thermal Impacts Associated with Urbanization and Stormwater Management, Best management Practices: Appendices	Prepared by John Galli & Robert Dubose, Department of Environmental Programs, Metropolitan Washington Council of Governments	December 1990
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R0058399	STORM006	1388.	Orange County NPDES Stormwater Program: Drainage Area Management Plan	Submitted to the San Diego and Santa Ana Regional Water Quality Control Boards	April 1993
R0058690	STORM006	1389.	Santa Clara Valley Non-Point Source Program -Proposed Storm Water Management Plan	Section 9	December 20, 1994
R0058767	STORM006	1390.	Service Station Storm Water Runoff Study Contract No. DT 308-02	Prepared for Western States Petroleum Association	Octobers, 1993
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R0058946	STORM006	1392.	Good Practices to Protect Our Creeks and Bay -Guidelines for Restaurants, Grocery Stores, Cafeterias, Bakeries, and Delicatessens	Santa Clara Valley Nonpoint Source Pollution Control Program	
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		ropolitan Flood Control District, ersity Fresno, and Caltrans, Urban Region)	ge Requirements for Storm tee (CRWQCB - Los Angeles	and Water Conservation District, nty Within the Santa Ana Region. . 90-104 - NPDES No.	ramento, Cities of Sacramento,	Region; CAS029718, Order 95- Water District, County of Santa Los Altos Hills, Town of Los . City of Palo Alto, City of San ch have joined together to form	Jrder No. 94-099 (NPDES No. y Lagoon Storm Water Discharge	United States Environmental ational Pollutant Discharge	B-AR4187
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R0066722	STORM007	1501.	12/2/92	Memo addressed to Archie Matthews (Division of Water Quality) from Elizabeth Jennings,

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R0066862	STORM007	1509.	9/8/94	Memorandum addressed to Storm Water Permit Program Coordinators – Municipal Storm Water Management Plan Components
R0066878	STORM007	1510.	9/95	EPA - Economic Benefits of Runoff Controls
R0066895	STORM007	1511.	10/3/95	Memo Addressed to Bruce Fujimoto (Division Of Water Quality) from Elizabeth Jennings of SWRCB regarding Municipal Storm Water Permits: Compliance With Water Quality Objectives
R0066898	STORM007	1512.	1994	EPA National Water Quality Inventory. 1994 Report to Congress - Executive Summary
R0066947	STORM007	1513.	1/10/96	Memo addressed to Catherine Tyrrell, et al from Jorge Leon SWRCB Senior Staff Counsel regarding legal issues Raised in Draft Storm Water WDRs/NPDES Permit for LA County, et al.
R0066951	STORM007	1514.	3/25/96	Comparison of Los Angeles County Draft Storm Water Permit with Similar Permits in Orange and Santa Clara Counties
R0066961	STORM007	1515.	5/96	Liquid Assets: A Summertime Perspective on the Importance of Clean Water to the Nation's Economy. USEPA Document No. 800-R-96-002. (see Table of Contents attached)
R0066991	STORM007	1516.	5/17/96	EPA - Interpretative Policy Memorandum on Re-application Requirements for Municipal
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R0067514	STORM007	1555.	10/25/95	City of San Dimas	Draft Municipal N.P.D.E.S Permit
R0067519	STORM007	1556.	11/1/95	City of Santa Fe Springs	Few comments regarding the latest draft of the proposed new NPDES Permit
R0067521	STORM007	1557.	10/12/95	City of San Marino	Comments on the September 15th Draft NPDES Permit CAS0061654
R0067523	STORM007	1558.	12/8/95	Sidley & Austin	Disk with Monitoring Program Documents
R0067524	STORM007	1559.	10/17/95	City of Signal Hill	Comments September 15th Draft NPDES Permit CAS0061654
R0067527	STORM007	1560.	10/03/95	City of South Gate	Comments September 15th Draft NPDES Permit CAS0061654

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		VOLUME 24		: Comments on LA County Storm Water Draft NPDES Permit Sept. 15, 1995	Water Draft NPDES Permit
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R0067529	STORM007	1561.	10/06/95	City of South El Monte	Comments - September 15 th Draft NPDES Permit CAS0061654
R0067532	STORM007	1562.	10/16/95	City of West Covina	Draft NPDES Permit No. CAS0061654
R0067533	STORM007	1563.	10/11/95	City of West Hollywood	Comments on September 15, 1995, Draft Waste Discharge Requirements for Stormwater Management/Urban Runoff Discharges within the County of Los Angeles (NPDES No. CAS0061654)
R0067540	STORM007	1564.	12/7/95	Transmittal Letter from NRDC to Catherine Tyrrell	Thresholds for Triggering the Urban Runoff Mitigation Plan
R0067541	STORM007	1565	12/14/95	Letter from NRDC to Catherine Tyrrell	Background Data for URMP Thresholds
R0067543	STORM007	1566.	12/14/95	Attached: NRDC to Catherine Tyrrell	List of Building Permits issued by CLA1 994 & 1995
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R0067607	STORM007	1567.	2000	Administrative record for Sta Bellflower, et al., Permit for A (SUSMPs) Within Los Augele	Administrative record for State Board Adopted Order - Petition of the City of Bellflower, et al., Permit for Municipal Storm Water and Urban Run-Off Discharges (SUSMPs) Within Los Angeles County (order WQ 2000-011) (October 2000)
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R0067609	STORM007	1568.	1/26/00	Binder for California Regional Regular Board Meeting, Includ	Binder for California Regional Water Quality Control Board, Los Angeles Region, 427 th Regular Board Meeting, Including Item 11, SUSMP Mitigation Plans
R0067610	STORM007	1569.	1/26/00	Agenda for California Regiona Regular Board Meeting, Includ	Agenda for California Regional Water Quality Control Board. Los Angeles Region, 427 th Regular Board Meeting, Including Item 11, SUSMP Mitigation Plans
R0067617.1	STORM007	1570.	1/26/00	Roll Call	
R0067627	STORM007	1571.	1/26/00	Order of Agenda	
R0067628	STORM007	1572.	1/26/00	Approval of Minutes of the Regular Boa Board Meeting held December 20, 1999	Approval of Minutes of the Regular Board Meeting held December 9, 1999; and the Special Board Meeting held December 20, 1999
R0067630	STORM007	1573.	1/26/00	Report of Nominating Committee and Election Officers	tee and Election Officers
R0067631	STORM007	1574.	1/2.6/00	Consideration of 2000 Board Meeting Schedule	decting Schedule

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VOLUME 01	Board Member Ex Parte Communication Disclosure	Uncontested Items Calendar	Public Forum	ltem 9	Item 10	Item 11- Separate Binder	Item 12	Item 13	Item 14	Item 15	ltem 16	Item 17	Item 18	ltem 19	Item 20	Item 21	VOLUME 02	Binder for Item 11, SUSMP Mitigation Plans of the California Regional Water Quality Control Board, Los Angeles Region, 427 th Regular Board Meeting	Letters to the Public Regarding Change of Date and Location for the 427 th Regular Board Meeting	Staff Report and Record of Decision for Standard Urban Storm Water Mitigation Plans and Numerical Standards For Best Management Practices	Los Angeles County Municipal Storm Water Permit - Order No. 96-054	Standard Urban Storm Water Mitigation Plan, Statement of Dennis Dickerson. Executive Officer	Dennis Dickerson's Notes From Meetings with Various Cities, Business and Environmental Groups, and Board Members and Staff	Board Meeting Presentations Exhibits A-R	Board Meeting Presentations Exhibits Overheads
DATE	1/26/00 E	1/26/00 L	1/26/00 F	1/26/00 1	1/26/00 1	1/26/00 1	1/26/00 1	1/26/00 1	1/26/00 I	1/26/00	1/26/00 1	1/26/00 I	1/26/00 I	1/26/00 I	1/26/00 I	1/26/00 1	 DATE	1/26/00	1/21/00 I	1/18/00	I	1/26/00		1/26/00	1/26/00
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R0068225	STORM007	1599.	1/27/00	Board Meeting Presentations sent to Jorge Leos by NRDC
R0068243	STORM007	1600.	1/27/00	Board Meeting Presentations sent to Xavier Swamikannu by NRDC
R0068257	STORM007	1601.	1/25/00	SUSMP Development Planning Change Sheet Revised
R0068261	STORM007	1602.	1/21/00	SUSMP Development Planning Change Sheet
R0068265	STORM007	1603.	1/21/00	Standard Urban Storn Water Mitigation Plan, Summary of Comments (Since December 6, 1990) and Resonnee-Sumplement
R0068268	STORM007	1604.	1/26/00	Standard Urban Storm Water Mitigation Plan presented to Regional Board by Xavier Swamikannu
R0068270	STORM007	1605.		Los Angeles County Municipal Storm Water Permit and Standard Urban Storm Water Mitigation Plan Presentation to Regional Board
R0068274	STORM007	1606.		Comments from Permittes
R0068343	STORM007	1607.		Comments from Executive Advisory Committee
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R0068388	STORM007	1609.		Comments from Interested Parties
R0068664	STORM007	1610.		Various Newspaper Articles Dealing with SUSMP
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R0068725	STORM007	1611.	1/26/00	Binder for Xavier Swamikannu's Presentation on Item 11, SUSMP Mitigation Plans of the California Regional Water Quality Control Board, Los Angeles Region, 427 th Regular Board Meeting
R0068726	STORM007	1612.		Outline of Presentation
R0068731	STORM007	1613.		BMP Cost Estimates
R0068739	STORM007	1614.	1/20/00	Newspaper Article: Sacramento Bee
R0068741	STORM007	1615.		Opening Statement
R0068742	STORM007	1616.	1/26/00	Procedure for Public Comment on
R0068744	STORM007	1617.	12/7/99	Tentative Resolution to SUSMP
R0068767	STORM007	1618.		Staff Report and Record of Decision SUSMP and Numerical Design Standards for Best Management Practices
R0068790	STORM007	1619.		SUSMP Development Planning Change Sheet
R0068725	STORM007	1620.	1/21/00	Revised Final Tentative Copy of Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County
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R0068818	STORM007	1622.		SUSMP Development Planning Change Sheet (Revised)
R0068822	STORM007	1623.	12/7/99	Revised Tentative Resolution to SUSMP
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R0068839	STORM007	1624.	1/26/00	Binder for NRDC's Presentation on Item 11, SUSMP Mitigation Plans of the California Regional Water Quality Control Board, Los Angeles Region, 427 th Regular Board Meeting
R0068840	STORM007	1625.	1/14/00	Letter to California Regional Water Quality Control Board, Los Angeles Region from NRDC regarding Proposed Model SUSMP Plans
R0068862	STORM007	1626.	66/6/6	Exhibit A- Letter to California Regional Water Quality Control Board, Los Angeles from NRDC
R0068868	STORM007	1627.	-	Exhibit B- A Guide to Better Site Planning
R0068875	STORM007	1628.		Exhibit C- Los Angeles County Requirements
R0068878	STORM007	1629.	12/3/99	Exhibit D- Storm Water Report by Los Angeles & San Gabriel Watershed Council- Final Draft
R0068916	STORM007	1630.	4/22/99	Exhibit F- Resolution 99-03 Approving BMPs for SUSMP in LA County
R0068925	STORM007	1631.	1/13/00	Exhibit G- Supplemental Declaration of Richard R. Horner
R0068930	STORM007	1632.	00/11/1	Exhibit H- Letter to California Regional Water Quality Control Board. Los Angeles from Centers for Watershed Protection supporting 34 inch standard
R0068961	STORM007	1633.	8/94	Exhibit I- Published Report on Urban Runoff
R0068962	STORM007	1634.		Exhibit J- Structural BMP Expected Pollutant Removal Efficiency Table
R0068964	STORM007	1635.		Exhibit K- Published Report on the Effectiveness of Two Storm Water Trash Trapping Systems
R0068965	STORM007	1636.		Exhibit L- Typical Base Capital Construction Costs for BMPs Table
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R0068968	STORM007	1639.	1/14/00	Cities of Alhambra, Compton, El Segundo, Lomita, Hawthome, Torrance. Industry and Santa Clarita

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	VOLUME 05	) City of West Hollywood	City of Whittier	VOLUME 06	Alameda County Urban Runoff Clean Water Program- Stormwater Inlet Insert Devices Literature Review	California Coastal Commission- State of California Resources Agency	California Coastal Commission- State of California Resources Agency	California Regional Water Quality Control Board Los Angeles Region	California Regional Water Quality Control Board Los Angeles Region	California Stormwater Quality Task Force	Center for Watershed Protection	County of Los Angeles Board of Supervisors	County of Los Angeles Department of Public Works	County of Los Angeles Department of Public Works	County of Los Angeles Department of Public Works	County of Los Angeles Department of Public Works	County of Los Angeles Department of Public Works	County of Los Angeles Department of Public Works	County of Ventura Public Works Agency- Email regarding comment letter on SUSMP		Los Angeles County Urban Runoff and Stormwater NPDES Permit Standard Urban Stormwater Mitigation Plan	San Gabriel Basin Water Master	San Gabriel Basin Water Quality Authority	San Gabriel Valley Council of Governments	Santa Monica Mountain Conservancy State of California Resources Agency	South Bay Cities Council of Governments	Southern California Association of Governments	Southern California Association of Governments- Meeting of the Water Quality Task Force	Southern California Association of Governments	
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R0069455	STORM007	1727.	1/13/00	USEPA- Region IX
R0069457	STORM007	1728.	1/14/00	Ventura Countywide Stormwater Quality Management Program
R0069460	STORM007	1729.	9/13/99	Ventura Countywide Stornwater Quality Management Program
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R0069472	STORM008	1731.	1/12/00	Ballona Wetlands Foundation
R0069474	STORM008	1732.	12/7/9	California CoastKeeper
R0069476	STORM008	1733.		California Native Plant Society
R0069478	STORM008	1734.	00/61/1	Center for Marine Conservation
R0069480	STORM008	1735.	1/11/00	Center for Watershed Protection
R0069492	STORM008	1736.	1/20/00	Coalition for Clean Air
R0069494	STORM008	1737.	12/06/99	Community Coalition for Change
R0069496	STORM008	1738.	6/12/99	Defend the Bay
R0069497	STORM008	1739.	1/5/00	Earth Communications Office
R0069498	STORM008	1740.	1/19/00	Education for Sustainable Living
R0069499	STORM008	1741.	1/11/00	Environmental Defense Center
R0069501	STORM008	1742.	1/17/00	Friends of the Los Angeles River
R0069503	STORM008	1743.	9/16/99	Friends of the Los Angeles River
R0069505	STORM008	1744.	8/6/99	Friends of the Los Angeles River
R0069506	STORM008	1745.	4/17/00	Heal the Bay SUSMP 6.0 Numeric Standard Version
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R0069524	STORM008	1749.	6/10/99	Heal the Bay
R0069526	STORM008	1750.		Heal the Bay Form Letters Sent out to the Public for Signatures (104)
R0069527	STORM008	1751.	66/6/6	Los Angeles River Watershed Management Committee
R0069573	STORM008	1752.	66/6/6	Los Cerritos Wetlands Task Force
R0069575	STORM008	1753.	1/24/00	Natural Resources Defense Council Letter to Mr. Alvarez

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R0069845	STORM008	1787.	1/14/00	California Restaurant Association
R0069851	STORM008	1788.	1/25/00	Cabrillo Economic Development Corporation
R0069853	STORM008	1789.	1/14/00	1/14/00 California Environmental Associates
R0069858	STORM008	1790.	12/16/99	California Environmental Associates
R0069859	STORM008	1791.	12/15/99	California Public Interest Research Group
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R0069864	STORM008	1794.	9/15/99	Centex Homes
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R0069872	STORM008	1798.	9/13/99	Desert Partners, Inc.
R0069873	STORM008	1799.	1/24/00	DeVere Anderson Enterprises
R0069876	STORM008	1800.	1/19/00	Executive Advisory Committee Version of SUSMP
R0069896	STORM008	1801.	12/22/99	Executive Advisory Committee
R0069906	STORM008	1802.	12/16/99	
R0069908	STORM008	1803.	8/31/99	Executive Advisory Committee Letter with Final Tentative SUSMP (12/07/99)
R0069926	STORM008	1804.	9/14/99	Engineering Contractors: Association
R0069928	STORM008	1805.	1/24/00	First American Title Company
R0069929	STORM008	1806.	9/14/99	FORMA
R0069930	STORM008	1807.	1/26/00	Greystone Homes
R0069932	STORM008	1808.	9/12/99	Greystone Homes
R0069933	STORM008	1809.	9/15/99	Greystone Homes
R0069937	STORM008	1810.	10/22/99	H, O& K Inc.
R0069938	STORM008	1811.	1/24/00	Harvey Stienberg, AICP

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· · ·	VOLUME 08	С.			· · ·												mmerce	AL ESTATE		ndscape Architecture														
		John L. Hunter and Associates, Inc.	Cruz/Krovetz: IDEAS	JBI Process Equipment	JCC Homes	JTL Development Corporation.	Justice & Associates	Kaufinan Broad	John Laing Flomes	John Laing Homes	John Laing Homes	LANTEX	Land Tech Engineers	Legacy Partners	Lennar Communities	Liberty Hill Foundation	Long Beach Area Chamber of Commerce	Los Angeles County Board of REAL ESTATE	Malibu Bay Company	MIA LEHRER & Associates, Landscape Architecture	Mid-Cities Escrow	New Hall Land	New Hall Land	New Hall Land	New Urban West, Inc.	Páce Engineering, Inc.	Pacific Bay Homes	Pacific Bay Homes	Pacific Bay Homes	Pacific Soils Engineering, Inc.	Pacific Soils Engineering, Inc.	Pacific Soils Engineering, Inc.		
a. 	DATE	1/15/00	00/01/1	1/5/00	1/25/00	9/15/99	1/25/00	1/2400	1/20/00	9/12/99	9/13/99	1/24/00	9/12/99	1/18/00	1/24/00	12/6/99	10/14/99	1/20/00	1/18/00	1/21/00	9/13/99	1/14/00	12/13/99	9/8/99	9/16/99	9/14/99	1/24/00	9/14/00	9/14/99	-1/24/00	9/15/99	9/15/99	۲ ۲۰۰۰ بالی ۲۰۰۰ بالی ۲۰۰۰ بالی ۲۰۰۰ بالی	- - - -
	ITEM	1812.	1813.	1814.	1815.	1816.	1817.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.	1831.	1832.	1833.	1834.	1835.	1836.	1837.	1838.	1839.	1840.	1841.	1842.		
	CD Vol.	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	STORM008	Ŧ	
•	PAGE #	R0069940	R0069948	R0069950	R0069952	R0069957	R0069959	R0069964	R0069969	R0069970	R0069973	R0069975	R0069976	R0069978	R0069979	R0069983	R0069985	R0069987	R0069989	R0069990	R0069992	R0069993	R0069996	R0069998	R0070003	R0070005	R0070007	R0070012	R0070014	R0070015	R0070020	R0070022		

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\$1         STORM008         1843.         1/20/00         Pardee Construction Company           7         STORM008         1844.         1/21/00         Playa Vista           7         STORM008         1844.         1/21/00         Playa Vista           8         STORM008         1844.         1/21/00         Playa Vista           8         STORM008         1847.         9/13/99         Rens B. Link & Associates, Inc.           9         STORM008         1849.         1/24/00         Rex B. Link & Associates           9         STORM008         1850.         12/22/99         Rutan & Tucker           9         STORM008         1851.         1/24/00         Shea Homes           9         STORM008         1853.         9/13/99         Shea Homes           9         STORM008         1855.         9/13/99         Shea Homes           9<	PAGE#	CD Vol	ITEM	DATE	VOLUME 08
STORM008       1844.       1/21/00         STORM008       1845.       9/14/99         STORM008       1845.       9/14/99         STORM008       1847.       9/14/99         STORM008       1847.       9/13/99         STORM008       1849.       1/24/00         STORM008       1850.       1/24/00         STORM008       1851.       1/24/00         STORM008       1851.       1/24/00         STORM008       1851.       1/24/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1855.       9/15/99         STORM008       1856.       1/22/00         STORM008       1866.       1/12/00         STORM008       1866.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008	0070023	STORM008	1843.	1/20/00	
STORM008       1845.       9/14/99         STORM008       1846.       9/14/99         STORM008       1847.       9/13/99         STORM008       1847.       9/13/99         STORM008       1849.       1/24/00         STORM008       1850.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1856.       1/22/00         STORM008       1856.       1/22/00         STORM008       1856.       1/22/00         STORM008       1866.       1/12/00         STORM008       1865.       9/15/99         STORM008	20070024	STORM008	1844.		Playa Vista
STORM008       1846.       9/14/99         STORM008       1847.       9/13/99         STORM008       1847.       9/13/99         STORM008       1849.       1/24/00         STORM008       1849.       1/24/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1855.       9/13/99         STORM008       1856.       1/20/00         STORM008       1855.       9/15/99         STORM008       1866.       1/21/00         STORM008       1866.       1/20/00         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008	R0070027	STORM008	1845.	9/14/99	David B. Placek, P.E.
STORM008       1847.       9/13/99         STORM008       1848.       1/24/00         STORM008       1850.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1852.       1/24/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1855.       9/15/99         STORM008       1856.       1/24/00         STORM008       1866.       1/12/00         STORM008       1866.       1/12/00         STORM008       1866.       1/12/00         STORM008       1866.       1/12/00         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008	R0070031	STORM008	1846.	9/14/99	Ramseyer and Associates, Inc.
STORM008       1849.       1/24/00         STORM008       1850.       1/24/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1852.       1/24/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1856.       1/24/00         STORM008       1855.       9/15/99         STORM008       1856.       1/24/00         STORM008       1856.       1/22/00         STORM008       1856.       1/22/00         STORM008       1866.       1/12/00         STORM008       1866.       1/22/00         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008	20070033	STORM008	1847.	9/13/99	James S. Rasmussen
STORM008       1849.       1/24/00         STORM008       1850.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1851.       1/25/00         STORM008       1855.       9/13/99         STORM008       1856.       1/24/00         STORM008       1856.       9/15/99         STORM008       1861.       1/24/00         STORM008       1866.       9/15/99         STORM008	20070036	STORM008	1848.	-	Rex B. Link & Associates
STORM008       1850.       12/22/99         STORM008       1851.       1/25/00         STORM008       1852.       1/24/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1855.       9/15/99         STORM008       1860.       1/12/00         STORM008       1861.       1/24/00         STORM008       1865.       9/15/99         STORM008       1866.       1/20/00         STORM008	20070037	STORM008	1849.	1/24/00	Rottman Froman Communities
STORM008       1851.       1/25/00         STORM008       1852.       1/24/00         STORM008       1855.       9/13/99         STORM008       1855.       9/15/99         STORM008       1855.       9/15/99         STORM008       1856.       1/24/00         STORM008       1856.       1/12/00         STORM008       1861.       1/24/00         STORM008       1861.       1/21/00         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1865.       9/15/99         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008	20070040	STORM008	1850.	12/22/99	Rutan & Tucker
0       STORM008       1852.       1/24/00         0       STORM008       1853.       9/13/99         0       STORM008       1854.       9/13/99         0       STORM008       1855.       9/13/99         0       STORM008       1855.       9/13/99         0       STORM008       1855.       9/13/99         1       STORM008       1855.       9/13/99         0       STORM008       1855.       9/15/99         1       STORM008       1855.       9/15/99         1       STORM008       1856.       9/15/99         1       STORM008       1861.       1/21/00         1       STORM008       1861.       1/21/00         1       STORM008       1865.       9/15/99         1       STORM008       1866.       9/15/99         1       STORM008       1866.       1/20/00         1       STORM008 <t< td=""><td>R0070049</td><td>STORM008</td><td>· 1851.</td><td>1/25/00</td><td>Shea Homes</td></t<>	R0070049	STORM008	· 1851.	1/25/00	Shea Homes
STORM008         1853.         9/13/99           STORM008         1854.         9/13/99           STORM008         1855.         9/13/99           STORM008         1856.         1/20/00           STORM008         1859.         9/13/99           STORM008         1860.         1/12/00           STORM008         1861.         1/24/00           STORM008         1861.         1/20/00           STORM008         1861.         1/20/00           STORM008         1865.         9/15/99           STORM008         1866.         9/15/99           STORM008         1866.         9/15/99           STORM008         1866.         1/20/00 <td>20070050</td> <td>STORM008</td> <td>1852.</td> <td>1/24/00</td> <td>Shea Homes</td>	20070050	STORM008	1852.	1/24/00	Shea Homes
0       STORM008       1854.       9/14/99         1       STORM008       1855.       9/13/99         1       STORM008       1855.       9/13/99         1       STORM008       1855.       9/13/99         1       STORM008       1855.       9/15/99         1       STORM008       1855.       9/15/99         1       STORM008       1859.       9/15/99         1       STORM008       1860.       1/12/00         1       STORM008       1861.       1/24/00         1       STORM008       1861.       1/24/00         1       STORM008       1861.       1/20/00         1       STORM008       1865.       9/15/99         1       STORM008       1866.       1/20/00         1       STORM008       1865.       9/15/99         1       STORM008 <t< td=""><td>30070053</td><td>STORM008</td><td>1853.</td><td>9/13/99</td><td>Shea Homes</td></t<>	30070053	STORM008	1853.	9/13/99	Shea Homes
STORM008       1855.       9/13/99         STORM008       1856.       1/20/00         STORM008       1857.       1/24/00         STORM008       1857.       9/15/99         STORM008       1857.       9/15/99         STORM008       1859.       9/15/99         STORM008       1856.       9/15/99         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1866.       9/15/99         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1870.       1/20/00         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008       1872.       9/15/99         STORM008	R0070059	STORM008	1854.	9/14/99	SIKAND Engineering, Planning, Surveying
STORM008       1856.       1/20/00         STORM008       1857.       1/24/00         STORM008       1858.       9/15/99         STORM008       1858.       9/15/99         STORM008       1856.       1/12/00         STORM008       1861.       1/12/00         STORM008       1861.       1/21/00         STORM008       1861.       1/21/00         STORM008       1861.       1/21/00         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       1/20/00         STORM008       1866.       1/20/00         STORM008       1866.       1/20/00         STORM008       1867.       9/15/99         STORM008       1870.       1/20/00         STORM008       1869.       1/20/00         STORM008       1870.       9/15/99         STORM008	20070061	STORM008	1855.	66/13/66	SIKAND Engineering, Planning, Surveying
STORM008       1857.       1/24/00         STORM008       1858.       9/15/99         STORM008       1859.       9/15/99         STORM008       18560.       1/12/00         STORM008       1860.       1/12/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1867.       9/15/99         STORM008       1867.       9/15/99         STORM008       1867.       9/15/99         STORM008       1870.       1/20/00         STORM008       1870.       1/20/00         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008	20070062	STORM008	1856.	1/20/00	Southern California Contractors Association, Inc.
STORM008       1858.       9/15/99         STORM008       1859.       9/13/99         STORM008       1860.       1/12/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       9/1/99         STORM008       1866.       9/1/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/99         STORM008       1870.       1/20/00         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008	20070063	STORM008	1857.	1/24/00	Southern California Ready Mixed Concrete Association
STORM008       1859.       9/13/99         STORM008       1860.       1/12/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1861.       1/24/00         STORM008       1865.       9/15/99         STORM008       1864.       1/20/00         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1866.       9/15/99         STORM008       1867.       9/15/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/99         STORM008       1870.       1/20/00         STORM008       18770.       9/15/99         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008       1871.       9/15/99         STORM008       1872.       9/15/99	30070064	STORM008	1858.	9/12/99	Southern California Ready Mixed Concrete Association
STORM008       1860.       1/12/00         STORM008       1861.       1/24/00         STORM008       1862.       1/21/00         STORM008       1863.       9/15/99         STORM008       1865.       9/15/99         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1867.       9/1990         STORM008       1869.       1/20/00         STORM008       1870.       1/20/00         STORM008       1870.       1/20/00         STORM008       1870.       1/20/00         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99         STORM008       1870.       9/15/99	30070066	STORM008	1859.	9/13/99	South Place Corporation
STORM008       1861.       1/24/00         STORM008       1862.       1/21/00         STORM008       1863.       9/15/99         STORM008       1864.       1/20/00         STORM008       1865.       9/15/99         STORM008       1866.       9/15/99         STORM008       1867.       9/1/90         STORM008       1867.       9/1/90         STORM008       1869.       1/20/00         STORM008       1870.       9/15/99         STORM008       1872.       9/15/99	30070068	STORM008	1860.	1/12/00	Stainless Industrial Companies
2       STORM008       1862.       1/21/00         5       STORM008       1863.       9/15/99         7       STORM008       1864.       1/20/00         9       STORM008       1865.       9/13/99         9       STORM008       1865.       9/13/99         2       STORM008       1866.       9/1/99         7       STORM008       1867.       9/1/99         7       STORM008       1867.       9/1/99         8       STORM008       1868.       1/26/00         9       STORM008       1869.       1/20/00         9       STORM008       1870.       1/20/00         9       STORM008       1870.       1/20/00         9       STORM008       1870.       1/20/00         9       STORM008       1870.       1/20/00         9       STORM008       1871.       9/14/99         2       STORM008       1871.       9/15/99         2       STORM008       1871.       9/15/99	30070069	STORM008	1861.	1/24/00	SunCal Companies
5         STORM008         1863.         9/15/99           7         STORM008         1864.         1/20/00           9         STORM008         1865.         9/13/99           2         STORM008         1866.         9/15/99           4         STORM008         1866.         9/15/99           7         STORM008         1866.         9/1/99           8         STORM008         1868.         1/26/00           9         STORM008         1868.         1/26/00           9         STORM008         1869.         1/20/00           9         STORM008         1870.         1/20/00           9         STORM008         1870.         9/14/99           9         STORM008         1871.         9/14/99           9         STORM008         1871.         9/14/99           2         STORM008         1871.         9/15/99	30070072	STORM008	1862.	1/21/00	SunCal Companies
7         STORM008         1864.         1/20/00           9         STORM008         1865.         9/13/99           2         STORM008         1866.         9/15/99           4         STORM008         1866.         9/15/99           7         STORM008         1866.         9/15/99           8         STORM008         1867.         9/1/99           9         STORM008         1869.         1/20/00           9         STORM008         1870.         1/20/00           9         STORM008         1870.         1/20/00           9         STORM008         1870.         1/20/00           9         STORM008         1871.         9/14/99           0         STORM008         1871.         9/14/99           2         STORM008         1872.         9/15/99	30070075	STORM008	1863.	9/12/99	SunCal Companies
STORM008       1865.       9/13/99         STORM008       1866.       9/15/99         STORM008       1866.       9/1/99         STORM008       1867.       9/1/99         STORM008       1867.       9/1/90         STORM008       1867.       9/1/99         STORM008       1869.       1/26/00         STORM008       1870.       1/20/00         STORM008       1870.       1/20/00         STORM008       1871.       9/14/99         STORM008       1872.       9/15/99         STORM008       1872.       9/15/99	30070077	STORM008	1864.	1/20/00	Taylor Woodrow
STORM008       1866.       9/15/99         STORM008       1867.       9/1/99         STORM008       1868.       1/26/00         STORM008       1868.       1/20/00         STORM008       1869.       1/20/00         STORM008       1870.       1/20/00         STORM008       1870.       1/20/00         STORM008       1871.       9/14/99         STORM008       1872.       9/15/99         STORM008       1872.       9/15/99	30070079	STORM008	1865.	9/13/99	Taylor Woodrow
STORM008     1867.     9/1/99       STORM008     1868.     1/26/00       STORM008     1868.     1/20/00       STORM008     1870.     1/20/00       STORM008     1871.     9/14/99       STORM008     1871.     9/14/99       STORM008     1871.     9/15/99       STORM008     1872.     9/15/99       STORM008     1872.     9/15/99	R0070082	STORM008	1866.	9/15/99	TETRA TECH, INC.
STORM008         1868.         1/26/00           STORM008         1869.         1/20/00           STORM008         1870.         1/20/00           STORM008         1871.         9/14/99           STORM008         1871.         9/15/99           STORM008         1872.         9/15/99           STORM008         1872.         8/30/99	R0070084	STORM008	1867.	66/1/6	Joseph C. Truxaw and Associates, Inc.
STORM008         1869.         1/20/00           STORM008         1870.         1/20/00           STORM008         1871.         9/14/99           STORM008         1872.         9/15/99           STORM008         1872.         8/30/90	R0070087	STORM008	1868.	1/26/00	Ventura Affordable Home, Inc.
STORM008         1870.         1/20/00           STORM008         1871.         9/14/99           STORM008         1872.         9/15/99           STORM008         1872.         8/15/99	30070088	STORM008	1869.	1/20/00	Ventura Affordable Home, Inc.
STORM008         1871.         9/14/99           STORM008         1872.         9/15/99           STORM008         1872.         8/30/99	R0070089	STORM008	1870.	1/20/00	VTN West, Inc.
STORM008 1872. 9/15/99 STORM008 1873 8/30/99	R0070090	STORM008	1871.	9/14/99	Warmington Homes California
STORMOOR 1873 8/30/00	R0070092	STORM008	1872.	9/12/99	Western Pacific Housing
	R0070095	STORM008	1873.	8/30/99	Western States Petroleum Association

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			VOLUME 08	Weston Communities	West Pointe Homes, Inc.	VOLUME 09	Binder for California Regional Water Quality Control Board, Los Angeles Region, 424 th Regular Board Meeting, Including Standard Urban Stormwater Mitigation Plans	Notice of Public Hearing	Opening Statement	Correspondence Between Dennis Dickerson, Xavier Swamikannu, and Jorge Leon regarding the Board Meeting	Los Angeles County Municipal Storm Water Permit Order No. 96-054 Part 2.I.G. and 2I.H.	Los Angeles County Municipal Storm Water Permit Order No. 96-054	The Los Angeles County Standard Urban Storm Water Mitigation Plans	SUSMP Summary of Comments Received and Responses	Letter from American Oceans Campaign to Dennis Dickerson Regarding SUSMPs	Letter from Santa Monica Baykeeper to Regional Board Members regarding SUSMPs	Statement of Eduardo Olivo	Comments on Proposed Standard Urban Storm Water Mitigation Plans Presented by Natural Resources Defense Council	SUSMP's Regional Water Quality Control Board Meeting Sept. 16, 1999	Memorandum to SUSMP	Ventura Countywide Stormwater Quality Management Program Document with Methodology for BMP Calculations	Ventura Countywide Stormwater Quality Management Program Drainage Examples	Proposed SUSMP and Supporting Regional Board Resolution	Copy of the Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County	Draft SUSMP Requirements for Stornwater Runoff Mitigation Calculations	Numerical Mitigation Criteria for Development Planning Sample Calculations, BMP Cost Estimates, Calculations to Determine Equivalent Percent Volume Capture Criterion	Various Studies and Presentations from throughout the Nation on SUSMP	
	•		DATE	1/24/00	1/21/00	DATE	9/16/99				96/51/1	7/15/96		12/7/99	9/8/99	66/6/6	. 66/91/6	66/91/6		12/6/99	66/L1/11	66//1/11	12/7/99	12/7/99	11/10/99	12/8/99		
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R0070717	STORM008	1898.	8/10/99	Sign in Sheet for the Standard Storm Water Mitigation Plans Workshop at the City of Alhambra
R0070724	STORM008	1899.	7/15/99	Outline for Discussion of NPDES Permit CAS614001 Part 2.III.A.I.c (Development of SUSMPs)
R0070727	STORM008	1900.		List of Region 4 Interested Parties
R0070733	STORM008	1901.	6/11/9	City of Los Angeles Comments on Draft Standard Urban Stormwater Mitigation Plans
R0070738	STORM008	1902.	8/12/99	County of Los Angeles, Department of Public Works Standard Urban Mitigation Plans
R0070787	STORM008	1903.	7/21/99	County of Los Angeles, Department of Public Works, Compliance File No. 6948. Standard Urban Mitigation Plans
R0070843	STORM008	1904.	7/12/99	County of Los Angeles, Department of Public Works Proposed Standard Urban Stormwater Mitigation Plans
R0070940	STORM008	1905.	8/13/99	Memorandum from John Hunter regarding NPDES Requirements for New Development Projects Numerical Limits and Anticipated Costs to Developers
R0070943	STORM008	1906.	10/20/99	City of Signal Hill, SUSMP
R0070944	STORM008	1907.	12/23/99	NRDC, Chpt. 3 of the County's Development Planning Volume, explaining the scope of projects to which the 0.75 inch capture volume standard applies
R0070948	STORM008	1908.	66/L/6	A Resolution of the City of Rancho Palos Verdes not to Require Cities to Impose Numeric Limits on the Treatment of Retention of Stormwater Runoff
R0070950	STORM008	1909.	66/6/6	Tom Richman & Associates. Workshop on Post-Construction Stormwater Controls in Los Angeles
R0070952	STORM008	1910.	12/2/99	Los Angeles County Municipal Storm Water And Urban Runoff Permit Status and Tracking Sheet
R0070955	STORM008	1911.	12/8/99	Los Angeles County NPDES Stormwater Executive Advisory Committee Meeting Sign-in Sheet
R0070958	STORM008	1912.	2/99	Draft Permittee SUSMP 6.0 Numerical Standard Version
R0070966	STORM008	1913.		LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD ADMINISTRATIVE RECORD INDEX: Water Quality References

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R0071788	STORM008	1916.	66/91/6	California Regional Water Quality Control Board, Los Angeles Region, 424 th Regular Board Meeting Transcripts
R0071901	STORM008	1917.	1/26/00	California Regional Water Quality Control Board, Los Angeles Region, 427 th Regular Board Meeting Transcripts
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R0072244	STORM008	1918.	4/22/99	Binder for California Regional Water Quality Control Board, Los Angeles Region, 419 th Regular Board Meeting, Including Standard Urban Stornwater Mitigation Plans
R0072245	STORM008	1919.	4/22/99	Notice of Public Hearing
R0072251	STORM008	1920.	4/22/99	Consideration of Recommended Best Management Practices (BMP's) for Development Planning and Construction for Municipal Storm Water Programs in Los Angeles County
R0072335	STORM008	1921.	6/14/99	Letter from Xavier Swamikannu to LA County regarding Approving BMP's for Development Planning and Construction (Board Resolution No. 99-03) with attachments
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R0072345	STORM008	1922.	3/8/00	Standard Urban Storm Water Mitigation Plans and Board Resolution Approving Post- Construction BMP Requirements for Development Planning and Construction (Board Resolution R-00-02)
R0072346	STORM008	1923.	1/26/00	California Regional Water Quality Control Board, Los Angeles Region Resolution No. R-00-02. Approving the Standard Urban Water Mitigation Plan for Municipal Storm Water and Urban Runoff Management Programs in Los Angeles County
R0072350	STORM008	1924.	3/8/00	California Regional Water Quality Control Board, Los Angeles Region Staff Report and Record of Decision Standard Urban Storm Water Mitigation Plans and Numerical Design Standards for Best Management Practices—Supplement Board Directed Changes
R0072354	STORM008	1925.	1/25/00	

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3/8/00 Los Angeles county Urban Runoff and Storm Water NPDES Permit Standard Urban Storm Water Mitigation Plan	DATE VOLUME 15	3/30/00 Letter Regarding Consolidation of Completed Petitions from Elizabeth M. Jennings to Richard Montevideo, Stephen P. Deitsch and Lyman C. Welch.	4/14/00 Letter Regarding Amendment of Parties to Petition from Elizabeth M. Jennings to Richard Montevideo and Lyman C. Welch.	4/18/00 Letter Requesting Extention of Time to Respond to Xavier Swamikannu and David Beckman from Elizabeth M. Jennings.	5/17/00 Dismissal of Stay Request from Edward C. Anton to Richard Montevideo. Lyman C. Welch and Stephen P. Deitsch.	5/12/00 SWRCB, Office of Chief Counsel-Notice of Public Hearing	5/25/00 Response to the letter dated 05/23/00 from Elizabeth M. Jennings to Richard Montevideo.	6/12/00 Fax to Dennis Dickerson from Jorge Leon regarding Post Hearing Briefs.	8/28/00 Board Meeting Notification from Craig L. Wilson to Richard Montevideo. Lyman C. Welch and Stephen P. Deitsch. Draft Order attached.	9/25/00 SWRCB Board Meeting, Office of Chief Counsel October 5, 2000-Item 16		10/5/00 SWRCB Board Meeting-Office of Chief Counsel, Oct. 5, 2000-Errata Sheet	SUSMP and Board Resolution Approving Post-Construction BMP Requirements for           3/8/00         Development Planning and Construction from Dennis Dickerson to Harry Stone with a copy of	the Resolution No R-00-02	5/4/00 Letter from Xavier Swamikannu to Elizabeth Jennings in regards to the Transmittal and Certification of the Administrative Record	5/5/00 Response to Petition from Dennis Dickerson to Elizabeth Jennings.	6/6/00 Presentation by Jorge Leon on Legal Issues.	6/6/00 Presentation by Dr. Xavier Swamikannu, including Script for Hearing.	7/7/00 Letter of Transmittal from Dennis Dickerson to Elizabeth M. Jennings including a copy of the Post-Hearing Brief	9/27/00 Letter of Transmittal from Dennis Dickerson to Craig Wilson. Including Regional Board Comment On Proposed Order.	
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R0072628	STORM008	1947.	4/18/00	Natural Resources Defense Council-Petitions of the Cities of Bellflower from David Beckman to Richard Montevideo.
R0072630	STORM008	1948.	5/2/00	Natural Resources Defense Council- Fax from Alex N. Helperin of Memorandum of points & Authorities in response to petitions for Review.
R0072668	STORM008	1949.	5/24/00	Natural Resources Defense Council- Fax from Alex N. Helperin of Scheduling of Expert Testimony from David S. Beckman to Elizabeth Jennings.
R0072671	STORM008	1950.	00/L/9	NRDC Presentation
R0072690	STORM008	1951.	7/6/00	Post-Hearing Brief on Behalf of NRDC, The Santa Monica Baykeeper, and Heal the Bay.
R0072703	STORM008	1952.	7/25/00	Objections to Petitioners' Post-I-learing Brief.
R0072707	STORM008	1953.	10/3/00	Draft Order to Chairman Arthur G. Baggett Jr. and Members of the Board from David S. Beckman, Mark Gold and Steve Fleischli.
R0072714	STORM008	1954.	2/25/00	Best Best & Krieger LLP-Petition for Review of 01/26/00 Action of the RWQCBLA and Action and Failures to Act by it and Its Executive Officer from Stephen P. Deitsch to SWRCB Office of Chief Courset
R0072718	STORM008	1955.	00/01//	Petitioner City of Arcadia's Post-I-learing Reply Brief to June 12, 2000 State Board Inquiry.
R0072722	STORM008	1956.	2/24/00	Petition for Review of the Regional Water Quality Control Board—Los Angeles Region's 01/26/00 Approval of The Standard Urban Storm Water Mitigation Plan Regulation.
R0072729	STORM008	1957.	2/28/00	Mayer, Brown & Platt- Request for Preparation of the Regional Board Record of the January 26, 2000 SUSMP Approval.
R0072730	STORM008	1958.	4/11/00	Amendment to Western States Petroleum Association's Petition for Review of the Regional Water Quality Control Board-Los Angeles Region's 01/26/00 Approval of The Standard Urban Stormwater Mitigation Plan Regulation.
R0072765	STORM008	1959.	6/2/00	Mayer, Brown & Platt-Fax of declaration to appear in court from Lyman C. Welch to Dennis Dickerson.
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R0072769	STORM008	1960.	2/25/00	Petitioner's Statement of Points and authorities in Support of Legal Issues in Petition of Actions and Inactions of the California Regional Water Quality Control Board, Los Angeles Region and its Executive Officer, Dennis Dickerson, Pursuant to Order NO. 96-054 (NPDES NO. CAS614001).

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R0072935	STORM008	1962.	5/22/00	Rutan & Tucker-Letter from Terence J. Gallagher to Parvaneh Khayat regarding the Administrative Record for Standard Urban Storm Water Mitigation Plan.
R0072938	STORM008	1963.	6/1/00	Petitioner's Summary of Arguments and Reply to Oppositions Filed by Respondents and By NRDC, Santa Monica Bay Keeper and Heal the Bay.
R0072961	STORM008	1964.	7/10/00	Petitioner's Pos-Hearing Reply Brief to June 12, 2000 State Board Inquiry.
R0072989	STORM008	.1965.	7/31/00	Petitioner's Response to NRDC's Objections to Petitioner's Post-Hearing Brief.
R0072997	STORM008	1966.	9/27/00	Western State Petroleum Association's Comments on the Board's Tentative Order.
R0073001	STORM008	1967.	9/27/00	Rutan & Tucker- Letter from Richard Montevideo to Craig M. Wilson. Including Petitioner's Written Comments to August 24, 2000 Draft Order of the State Water Resources Control Board.
R0073024	STORM008	1968.	10/4/00	Petitioner's Objections to Regional Board's Reference to Extra Record Evidence in Regional Board's September 27, 2000 Written Comments.
R0073031	STORM008	1969.	3/8/00	County of San Diego- Letter from Robert R. Cooper to John Robertus regarding Proposed Numeric Sizing Criteria for Post-Construction BMPs.
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R0073038	STORM008	1970.	6/7/00	Supplemental Evidence for the SUSMP State Board Meeting
R0073039	STORM008	1971.	5/31/00	Evidence and Exhibits Supplement to the Administrative Record sent to Elizabeth Jennings from Dennis Dickerson.
R0073041	STORM008	1972.	1/11/00	Center for Watershed Protection-Support for the <i>¾</i> Inch Standard to Reduce Runoff From New and Redevelopment from Thomas R. Schueler to Dennis Dickerson.
R0073053	STORM008	1973.	1/00	Better Site Design. Watershed Protection Techniques, Vol. 3, No. 2, January 2000.
R0073087	STORM008	1974.	9/14/98	Cost and Benefits of Storm Water BMPs for Parsons Engineering Schience. EPA Contract 68- C6-0001, WA 2-15, Task 6.
R0073146	STORM008	1975.	1/00	Housing Density and Urban Land Use as Indicators of Stream Quality. Watershed Protection Techniques, Vol. 3, No. 2, January 2000.
R0073151	STORM008	1976.	11/1/99	Study of the Impact of Stornwater Discharge on Santa Monica Bay. A Southern California Coastal Water Research Project for the Los Angeles County Dept of Public Works.
R0073171	STORM008	1977.		"Stormwater Management: Pointless Pollution" Techno 2100 TV Special to Air on February 26.
R0073172	STORM008	1978.	2/11/93	Definition of "Maximum Extent Practicable" from Elizabeth M. Jennings to Archie Matthews
R0073177	STORM008	1979.	5/23/00	Rutan & Tucker: Failure of Executive Officer to Respond to Notice of Intent to Implent Permittees'
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	VOLUME 17	August, 1999 SUSMP Order No. 96-054, Part 2.I.G.I.A from Richard Montevideo to Dennis Dickerson.	Maryland Department of the Environment. Explanation of Maryland's Stormwater Management Program.	Maryland's Stormwater Management Program by Maryland Department of the Environment, Water Management Administration.	Controlling Stormwater: Some Lessons From The Maryland Experience, prepared by Greg Lindsey and Molly Cannon. Maryland Department of the Environment, Water Management Administration.	Stormwater Management in Maryland An Administrative Evaluation of Local Programs. Maryland Department of the Environment, Water Management Administration.	State of Washington, Department of Ecology, Response to Mr. Swamikannu's email of nine questions, dated 05/19/00	Public Review Draft: Stornwater Management in Washington State. Volume 1, Minimum Technical Requirements. Washington State Department of Ecology.	Fax of Petition for Review Concerning the Los Angeles County SUSMP (SWRCB Files A-1280, A-1280(a), and A-1280(b))	State of Florida, Department of Environmental Protection. Resplies to Mr. Swamikannu's email Requesting Information About Stormwater Treatment Requirements Dated May 19, 2000.		VOLUME 18	Regional Board Meeting Transcripts of Proceedings	State Board Meeting SUSMP's Transcripts.	State Board Meeting SUSMP's Transcripts.	EPA Industry Sector Notebooks - Profile of the Agricultural Chemical, Pesticide and Fertilizer Industry (2000)	EPA Industry Sector Notebooks - Profile of the Agricultural Crop Production Industry (2000)	EPA Industry Sector Notebooks - Profile of the Agricultural Livestock Production Industry (2000)	EPA Industry Sector Notebooks - Profile of the Aerospace Industry (1998)	EPA Industry Sector Notebooks - Profile of the Air Transportation Industry (1997)	EPA Industry Sector Notebooks - Profile of the Dry Cleaning Industry (1995)	EPA Industry Sector Notebooks - Profile of the Electronics and Computer Industry (1995)	EPA Industry Sector Notebooks - Profile of the Possil Fuel Electric Power Generation Industry (1997)	EPA Industry Sector Notebooks - Profile of the Ground Transportation Industry (1997)	EPA Industry Sector Notebooks - Profile of the Inorganic Chemical Industry (1995)	EPA Industry Sector Notebooks - Profile of the Iron and Steel Industry (1995)	EPA Industry Sector Notebooks - Profile of the Lumber and Wood Products Industry (1995)	
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R0076085	STORM008	2005		EPA Industry Sector Notebooks - Profile of the Metal Mining Industry (1995)
R0076222	STORM008	2006	-	EPA Industry Sector Notebooks - Profile of the Motor Vehicle Assembly Industry (1995)
R0076369	STORM008	2007		EPA Industry Sector Notebooks - Profile of the Nonferrous Metals Industry (1995)
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R0076775	STORM008	2010		EPA Industry Sector Notebooks - Profile of the Organic Chemical Industry (1995)
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R0078209	STORM008	2020		EPA Industry Sector Notebooks - Profile of the Transportation Equipment Cleaning Industry (1995)
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R0078378	STORM008	2022		EPA Industry Sector Notebooks - Profile of the Wood Furniture and Fixtures Industry (1995)
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R0078820	STORM008	2024		EPA Industry Sector Notebooks - The Sector Notebook Data Refresh (1997)
R0079032	STORM008	2025	6/00	National Pollutant Removal Performance Database for Stormwater Treatment Practices, 2 nd Edition – Rebecca Winer Center for Watershed Protection.
R0079253	STORM008	2026	9/93	Handbook – Urban Runoff Pollution Prevention and Control Planning. USEPA Office of Research and Development. EPA/625/R-93/004.
R0079435	STORM008	2027		The Importance of Imperviousness article from Watershed Protection Techniques http://www.stormwatercenter.net/Practice/1-Importance%20of%20Imperviousness.pdf
R0079470	STORM008	2028		All Articles from The Practice of Watershed Protection - Stormwater Manager's Resource Center (SMRC) web site http://www.stormwatercenter.net/
R0080203	STORM008	2029	10/01	New York State Stormwater Management Design Manual

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## REOPENER OF THE COUNTY OF LOS ANGELES MUNICIPAL STORM WATER DISCHARGE PERMIT TO INCLUDE WASTE LOAD ALLOCATION FOR BACTERIA AT MARINA DEL REY HARBOR'S MOTHERS' BEACH AND BACK BASINS

#### Item Page Date Section Amendment to the Water Quality Control Plan - Los Angeles Region 8/7/03 1 to incorporate the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL Regional Board Resolution No. 2003-012 1-1 to 1-4 Basin Plan Amendment Language 1-5 to 1-16 1 Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria 10/31/05 TMDL Final Implementation Plan > Electronic copy of document on CD 1-16a to 1-16b Statement of support for the efforts of Responsible Jurisdictions and 4/6/06 1 Agencies in the Marina del Rey Watershed to utilize an Integrated Water Resources Approach to achieve full compliance with the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL in the shortest possible timeframe and no later than 2021. > Regional Board Resolution No. 2006-009 1-17 to 1-24 2 5/11/07 Public Notice of Public Hearing on proposed re-opening of the County of Los Angeles Municipal Separate Storm Sewer System Permit (NPDES Permit No. CAS0014001) > Public Notice 2-1 to 2-4 > Mailing List 2-5 to 2-54 Fact Sheet dated May 11, 2007 2-55 to 2-63 Proposed Changes to Order Language Except Findings 2-64 to 2-67 2-68 to 2-71 Proposed Changes to Findings 2-72 > Summary of Proposed Deletions 2 Notice to Los Angeles County Storm Water Permittees on the 5/11/07 Narrow Reopening of the Los Angeles Municipal Separate Storm Sewer System Permit for the Marina del Rev Bacteria TMDL 2-73 to 2-78 ➢ E-mail Notice 2 Proof of publication of Public Notice of Hearing in the following 5/16/07 Newspapers: 2-79 > The Daily Breeze 2-80 > Daily News Los Angeles 2-81 to 2-82 Santa Monica Daily Press 6/20/07 3 Letter from Burhenn & Gest LLP (representing the County of Los 3-1 to 3-3 Angeles and the Los Angeles County Flood Control District) setting forth objections and concerns to the announced procedures for hearing on the proposed re-opening of the County of Los Angeles Municipal Separate Storm Sewer System Permit (NPDES Permit No. CAS0014001)

AUGUST 9, 2007

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## ADMINISTRATIVE RECORD INDEX CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

#### LOS ANGELES REGION

# REOPENER OF THE COUNTY OF LOS ANGELES MUNICIPAL STORM WATER DISCHARGE PERMIT TO INCLUDE WASTE LOAD ALLOCATION FOR BACTERIA AT MARINA DEL REY HARBOR'S MOTHERS' BEACH AND BACK BASINS

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7/2/07	3	Notice of Continuation of the Regional Board Public Hearing on the Proposed Re-opening of the County of Los Angeles Municipal Separate Storm Sewer System Permit (NPDES PERMIT No. CAS004001) scheduled for July 12, 2007.	
		<ul> <li>➢ Notice of Continuation</li> <li>➢ Mailing List</li> </ul>	3-20 3-21 to 3-66
7/20/07	3	Letter from the Regional Board to the County of Los Angeles in response to their Request for Submittal of Evidence on the Proposed Re-opening of the County of Los Angeles Municipal Separate Storm Sewer System Permit (NPDES PERMIT No. CAS004001)	3-67 to 3-68
7/23/07	3	Letter from Regional Board to Howard Gest of Burhenn & Gest LLP (representing the County of Los Angeles and the Los Angeles County Flood Control District)) in response to June 20, 2007 letter expressing objections and concerns to the announced procedures for hearing on the proposed re-opening of the County of Los Angeles Municipal Separate Storm Sewer System Permit (NPDES Permit No. CAS0014001)	3-69 to 3-72
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		<ul> <li>Adopted Findings to incorporate the SMDDD Finds the Los Angeles County MS4 Permit (for reference purposes)</li> <li>Adopted Order Language to incorporate the SMBBB TMDL into the Los Angeles County MS4 Permit (for reference</li> </ul>	4-102 to 4-105

#### AUGUST 9, 2007

## REOPENER OF THE COUNTY OF LOS ANGELES MUNICIPAL STORM WATER DISCHARGE PERMIT TO INCLUDE WASTE LOAD ALLOCATION FOR BACTERIA AT MARINA DEL REY HARBOR'S MOTHERS' BEACH AND BACK BASINS

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	California Regional Water Quality Control Board, Los Angeles Region (2001) Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, and the Incorporated Cities therein, except the City of Long Beach. Order No. 01-182 (NPDES No. CAS004001) as amended by Order Nos. R4- 2006-0074 and R4-2007-0042.	14-127 to 14-205
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	California Regional Water Quality Control Board, Los Angeles Region (2004) Letter to Donald L. Wolfe, Assistant Director, County of Los Angeles Department of Public Works and Ken Farfsing, City Manager, City of Signal Hill re: Certification of the Hamilton Bowl Trash Nets as Full Capture Systems. April 29, 2004.	14-260 to 14-262
2	California Regional Water Quality Control Board, Los Angeles Region (2004) Letter to Jai Paul Thakur, Chief, Department of Transportation, District 7, Office of	14-263 to 14-266

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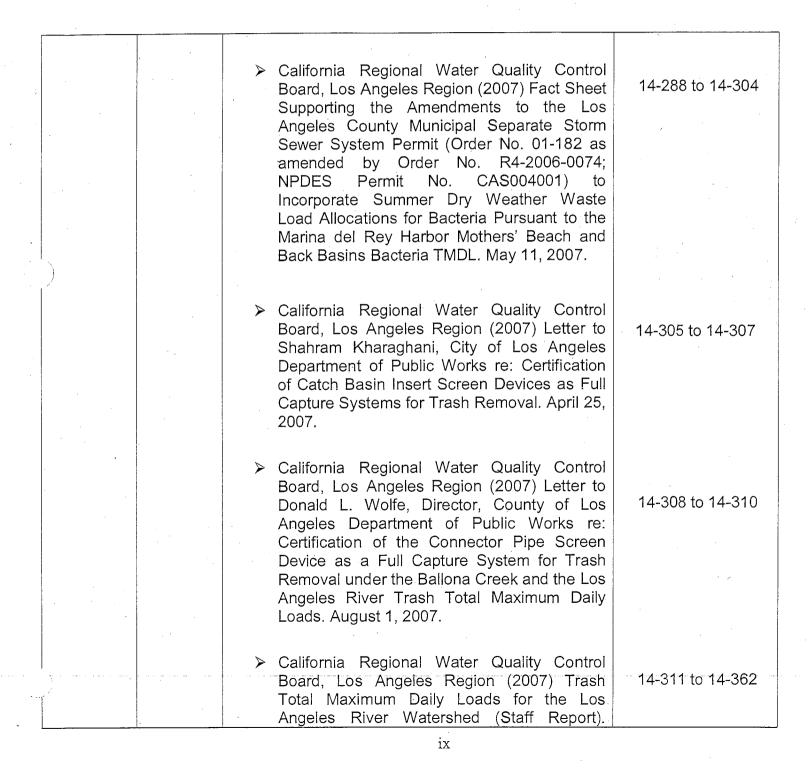
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	California Regional Water Quality Control Board, Los Angeles Region (2006) Resolution R06-013 (June 8, 2006) to set aside action in adopting the Trash Total Maximum Daily Load for the Los Angeles River Watershed, dated September 19, 2001, and in adopting Resolution No. 01-013; and to direct staff to revise the California Environmental Quality Act documentation as required by the Court of Appeal and to submit for the Regional Board's reconsideration a total maximum daily load for trash in the Los Angeles River Watershed as early as practical.	14-268 to 14-270
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	2004	Stormwater Best Management Practices, Mosquitoes, and West Nile Virus; Deatrich, M et al	A701 to A711
	July, 2003	West Nile Virus: A Fact Sheet on Mosquito Habitat; Upper Thames River Conservation Authority	A712 to A715
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•	November 18, 2002	(Oregon, Northwest Region), EPA Reference No. QRS 108015 State of Florida, Palm Beach County, Municipal Separate Storm Sewer System Permit, Permit # FLS000018 Major Facility	A18300 A18301 to A18349a
	July 27, 2005	National Pollutant Discharge Elimination System MS4 Discharge Permit	A18270 to
	March 14, 2006	Authorization to Discharge (Storm Water) Under the National Pollutant Discharge Elimination System MS4 Permit # DC0000221 (District of Columbia)	A18190 to A18269
	August 9, 2001	Authorization to Discharge (Storm Water) Oklahoma Pollutant Discharge Elimination System Permit # OKS000101, Co-Permittees: City of Oklahoma City, Oklahoma Turnpike Authority and Oklahoma Department of Transportation	A18159 to A18189
	January 13, 2003	Authorization to Discharge (Storm Water) Oklahoma Pollutant Discharge Elimination System Permit # OKS000201, Co-Permittees: City of Tulsa, Oklahoma Transportation Authority and Oklahoma Department of Transportation	A18130 to A18158
	December 24, 2002	Sarasota County Permittees NPDES Permit for Municipal Separate Storm Sewer Systems	A18059 to A18129
	December 13, 2001	California Regional Quality Control Board Los Angeles Region, Order No. 01-182, NPDES Permit No. CAS004001, Water Discharge Requirements For Municipal Storm Water and Urban Runoff Discharges Within The County of Los angeles, And The Incorporated Cities Therein, Except the City of Long Beach	A17919 to A18058

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December 27, 2006	Attachment F Monitoring Program - No. CI 7388 for Order 07-xxx NPDES Permit No. CAS004002, RWQCB-LA.	B138 to B164
December 27, 2006	Attachment G for Order 07-xxx NPDES Permit No. CAS004002, RWQCB-LA.	B165 to B168
December 27, 2006	Attachment H Reporting Program - No. CI 7388 for Order 07-xxx NPDES Permit No. CAS004002, RWQCB-LA.	B169 to B204
	Public Notices with Cover Letters for draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
February 16, 2007	Confirmation of Order 1091866, (Government Public Notice); Vermyil Thomas, Daily Journal Corporation	B205 to B206
February 15, 2007	Second Public Notice with Cover Letter for draft Ventura County Municipal Separate Storm Sewer System Permit (12-27-06) NPDES Permit No. CAS004002, Workshop, RWQCB-LA	B207 to B208
December 13, 2006	First Public Notice with Cover Letter for draft Ventura County Municipal Separate Storm Sewer System Permit (12-27-06) NPDES Permit No. CAS004002, Workshop, RWQCB-LA	B209 to B210
	Notice of Public Meeting/Hearing, Thursday, April 5, 2007, The City of Burbank (City Council Chambers) For draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
April 5, 2007	Notice of Public Meeting/Hearing, Thursday, April 5, 2007, The City of Burbank (City Council Chambers) For draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	B211 to B214
	Order of Proceedings for Item Number 11 - Order of Workshop - Regional Board Meeting, April 5, 2007 For draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
April 3, 2007	Order of Proceedings for Item Number 11 - Order of Workshop - Regional Board Meeting, April 5, 2007 For draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	B215
	Workshop Presentations (April 5, 2007), draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit December 27, 2006, NPDES Permit No. CAS004002	
April 5, 2007	Workshop Presentation Proposed Renewal of the County Ventura "Municipal Separate Storm Sewer System" (MS4) Permit, CD & Hard Copy; RB4 Staff, Storm Water Permitting	B216 to B267

ventura county watershed i rotection i	District, County of Ventura and the Omneor porated Cities Therein, ICI DEB TE	
- April 5, 2007	Workshop Presentation, Ventura Countywide Program Municipal Stormwater Program and Draft RWQCB Permit; Ventura Countywide Stormwater Quality Management Program	B268 to B275
April 5, 2007	Workshop Presentation, Draft Ventura County Municipal Permit The Municipal Impact; Coalition for Practical Regulation	B276 to B281
April 5, 2007	Workshop Presentation Alternative Approaches to the Proposed Planning and Land Development Program in the Draft Ventura County MS4 Permit; Construction Industry Coalition on Water Quality (CICWQ) and BIASC	B282 to B285
April 5, 2007	Workshop Presentation Municipal Action Levels & Assessing Compliance and Effectiveness; California Stormwater Quality Association (CASQA)	B286 to B289
April 5, 2007	Workshop Presentation Comments on the Draft Ventura County MS4 Permit; Heal The Bay and Natural Resources Defense Council (NRDC)	B290 to B293
April 5, 2007	Workshop Presentation The City of Simi Valley; John Behjan	B294 to B295
	Board Meeting/ Workshop Transcript (April 5, 2007), 1st draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit, December 27, 2006, NPDES Permit No. CAS004002	· · · · · · · · · · · · · · · · · · ·
April 5, 2007	Board Meeting/ Workshop (Transcript) State of California Los Angeles Regional Water Quality Control Board, The City of Burbank, City Council Chambers, April 5, 2007	B296 to B651
	Time Extension for Comments	
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Betsy Weber- Environmental Defense Center; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B652
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Bruce Fujimoto, Greg Gearheart, Jennifer Fordyce and Michael Levy- SWRCB, Phil Hammer- San Diego-RWQCB, Dale Bowyer- San Francisco Bay-RWQCB and Jack Faulk and Jennifer Molloy- U.S. EPA; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B653
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Daniel Cooper- Lawyers for Clean Water, Tracy Egoscue and Dana P. Palmer- Santa Monica BayKeeper, Kira Schmidt- Santa Barbara Channelkeeper and Kelly Moran- TDC Environmental, LLC.; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B654

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	District, County of Ventura and the Onneor porated Cities Therein, NTDES Fe	1 mai 110. CASU04002
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Clark Anderson- Local Gov. Commission, Charles Mink- City of Calabasas, and Lindy Coe-Juell- City of Manhattan Beach; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B655 ⁻
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Mr. Allday, Joe Cota- Earth Resources, Inc, Lisa Bond and Matthew E. Cohen- Richards Watson Gershon and Clark Anderson; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B656
February 20, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: LCarrie Douangsitthi, Frank Wu, Melinda Barrett and Maria Janofsky - LA County DPW, Eric Stein, Ken Schiff and Steve Bay- Southern California Coastal Water Research Project and Matt Yeager- San Bernardino County; Subject: Extension for comments to the draft Ventura County MS4 Permit.	B657
February 15, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: David Beckman, Natural Resources Defense Council and Kirsten James, Heal the Bay; Subject: Time Extension for Comments to the draft Ventura County MS4 Permit.	B658
February 15, 2007	E-Mail From: Los Angeles Regional Water Quality Control Board, To: Ventura County Permittees; Subject: Time Extension for comments to the draft Ventura County MS4 Permit.	B659
February 14, 2007	E-Mail From: Kirsten James, Heal the Bay, To: Los Angeles Regional Water Quality Control Board; Subject: Request for an Extension for Comments to the draft Ventura County MS4 Permit.	B660
February 13, 2007	E-Mail From: David Beckman, Natural Resources Defense Council, To: Los Angeles Regional Water Quality Control Board; Subject: Request for an Extension for Comments to the draft Ventura County MS4 Permit.	B661
	Letters Received on Request for Change In Date and Location for April 5, 2007 Workshop, draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
March 23, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Mohammad A. Fatemi, RCE, Engineering Division Manager, City of Thousand Oaks	B662
March 21, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed	B663

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		District, County of Ventura and the Unincorporated Cities Therein, NFDES Fe Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Robert L. Williams, P.E., Principal Civil Engineer, Land Development Engineering Division, Community Development Department, City of Ventura	
March	a 21, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); James A. Salvito, President, MNS Engineers Inc.	B664
March	a 20, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Richard Clark	B665
March	20, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Alec T. Pringle, Director - Engineering Services Department, County of Ventura	B666
March	ı 19, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Gregory A. Chelini, P.E., Vice President, MNS Engineers Inc.	B667
March	n 19, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); Darin P. Johnson, P.E., Senior Vice President, Camarillo Office Manager, RBF Consulting	B668
Marcl	n 19, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For Municipal Stormwater Discharges Within The Ventura County Watershed Protection District, County of Ventura And The Incorporated Cities (NPDES No. CAS004002); George Berg	B669
Marcl	ו 16, 2007	Request For Change In Date And Location For Public Workshop - Proposed Changes To The Waste Discharge Requirements For	B670

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v ciitui t	County Watershed Troteetion	District, County of Ventura and the Omneor porated Cities Therein, 1(1) DES Te	TIME 110. CA3004002
		Municipal Stormwater Discharges Within The Ventura County Watershed	
		Protection District, County of Ventura And The Incorporated Cities	
		(NPDES No. CAS004002); Tom Pizza, P.E.	· · · · · · · · · · · · · · · · · · ·
		Request For Change In Date And Location For Public Workshop -	
		Proposed Changes To The Waste Discharge Requirements For	
	March 16, 2007	Municipal Stormwater Discharges Within The Ventura County Watershed	B671 -
		Protection District, County of Ventura And The Incorporated Cities	
		(NPDES No. CAS004002); Robert Hearne, Civil Engineer, City of Oxnard	
		Request For Change In Date And Location For Public Workshop -	
		Proposed Changes To The Waste Discharge Requirements For	
		Municipal Stormwater Discharges Within The Ventura County Watershed	
	March 16, 2007	Protection District, County of Ventura And The Incorporated Cities	B672
1		(NPDES No. CAS004002); Ruben Zubia, P.E., Vice President, Brown	
		And Caldwell	
		Second Request For Change In Date And Location For Public Workshop	
		- Proposed Changes To The Waste Discharge Requirements For	
	March 16, 2007	Municipal Stormwater Discharges Within The Ventura County Watershed	B673 to B674
·			B0/3 (0 B0/4
		Protection District, County of Ventura And The Incorporated Cities	
		(NPDES No. CAS004002); Hubner, G.	
1		Request For Change In Date And Location For Public Workshop -	
	E-1	Proposed Changes To The Waste Discharge Requirements For	DOTE L. DOTO
	February 23, 2007	Municipal Stormwater Discharges Within The Ventura County Watershed	B675 to B676
		Protection District, County of Ventura And The Incorporated Cities	
		(NPDES No. CAS004002); Hubner, G.	
		Letters Responding to Request for Change In Date and Location for	
		April 5, 2007 Workshop, draft Ventura County Municipal Separate	
		Storm Sewer System Permit December 27, 2006, NPDES Permit No.	
		CAS004002	
		Reply To February 23, 2007 Letter - Request for Change in Date and	
		Location For Public Workshop Changes To The Waste Discharge	
	March 12, 2007	Requirements For Municipal Stormwater Discharges Within The Ventura	B677
		County Watershed Protection District, County of Ventura And The	
		Incorporated Cities (NPDES No. CAS004002); RWQCB-LA	
		Comments Received, draft Ventura County Municipal Separate Storm	
		Sewer System Permit December 27, 2006, NPDES Permit No.	
		CAS004002	
		Proposed MS4 Permit for Ventura County and Incorporated Cities, Dated	
	April 5, 2007	December 27, 2006 ("Proposed MS4 Permit"); Andrew Henderson,	B678 to B679
	•	Building Industry Association of Southern California.	
	· · · · · · · · · · · · · · · · · · ·		

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v cirtur a	County materiale in the second	Letters/ Correspondence- From: RWQCB-LA, To: Ventura	
		Countywide Stormwater Quality Management Program, draft	
		Ventura County Municipal Separate Storm Sewer System Permit,	,
		December 27, 2006, NPDES Permit No. CAS004002	
		Letter/ Correspondence, Request For Information - Municipal Storm	
		Letter/ Correspondence, Request For Information - Municipal Storm	1
		Water Monitoring Program For The County Of Ventura, CA - National	· · ·
	March 9, 2007	Pollutant Discharge Elimination System Municipal Storm Water	B680 to B681
	Maron 0, 2001	Discharge Permit For The Ventura County Watershed Protection District,	
		County Of Ventura And The Incorporated Cities Therein (NPDES No.	
		CAS004001, Order No. 01-108); RWQCB-LA	
		Letters/ Correspondence- From: Ventura Countywide Stormwater	
		Quality Management Program, To: RWQCB-LA, draft Ventura	
		County Municipal Separate Storm Sewer System Permit, December	
		27, 2006, NPDES Permit No. CAS004002	
	landaren birren han er en	Letter/ Correspondence, Response to Request For Information For	
		Municipal Storm Water Monitoring Program For The County of Ventura	DG92 to DG05
	May 11, 2007	Countywide Stormwater Quality Management Program (NPDES No.	B682 to B695
		CAS004001, Order No. 01-108); Hubner, G.	
		Letter/ Correspondence, Subject: Transmittal Of Transcript Excerpt -	
		Board Member Deliberations From April 5, 2007 RWQCB Workshop on	
	June 19, 2007	Ventura Countywide Stormwater 1st Draft Permit (NPDES No.	B696 to B712
		CAS004001); Hubner, G.,	
· · ·		Public Comment Review Period for draft Ventura County Municipal	
		Separate Storm Sewer System Permit (12-27-06) NPDES Permit No.	•
		CAS004002	
		Public Comment Review Period for draft Ventura County Municipal	
	Eshrupry 22, 2007	Separate Storm Sewer System Permit (12-27-06) NPDES Permit No.	B713 to B716
	February 22, 2007	CAS004002; Michael J. Levy, Senior Staff Counsel, LARWQCB	Brield Brie
		Comments Received During Workshop - Regional Board Meeting,	
		April 5, 2007 For draft Ventura County Municipal Separate Storm	
		Sewer System Permit December 27, 2006, NPDES Permit No.	
		CAS004002	
		Comments Received During Workshop - Regional Board Meeting, April	
	April 5, 2007	5, 2007 For draft Ventura County Municipal Separate Storm Sewer	B717 to B720
	, ipin 0, 2001	System Permit (12-27-06) NPDES Permit No. CAS004002; City of Signal	
		HII	
		Comments Received During Workshop - Regional Board Meeting, April	
	April 5, 2007	5, 2007 For draft Ventura County Municipal Separate Storm Sewer	B721 to B722
	April 0, 2007	System Permit (12-27-06) NPDES Permit No. CAS004002; California	
		Coastal Commission	

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	Record For Comment Letters Received by March 7, 2007 Deadline, draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, December 27, 2006, NPDES PERMIT NO. CAS004002	•
	Comments from Permittees	
March 7, 2007	City of Simi Valley, Mike Sedell, City Manager	B723 to B725
March 7, 2007	City of Moorpark; Yugal K. Lall, P.E., City Engineer/Public Works Director	B726 to B740
March 6, 2007	City of Port Hueneme; Carrie Mattingly, Utility Services Director	B741 to B742
March 6, 2007	Ventura County Watershed Protection District; Jeff Pratt, Director	B743 to B745
March 6, 2007	City of Ventura; Ronald J. Calkins, Director of Public Works	B746 to B748
March-6, 2007	-City-of-Camarillo; Jerry-Bankston, City Manager	B749_to_B764
March 6, 2007	City of Oxnard; Mark S. Norris, Assistant Public Works Director	B765 to B772
March 6, 2007	Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	B773 to B855
March 6, 2007	City of Ojai; Doug Breeze, Public Works Director	B856
March 6, 2007	County of Ventura Public Works Agency; Ronald C. Coons, Director	B857 to B863
March 5, 2007	City of Thousand Oaks; Mark D. Watkins, Public Works Director	B864 to B882
	Comments from Ventura County Associations/Agencies/Districts	
March 7, 2007	Oxnard Chamber of Commerce; Nancy Lindholm, President/CEO	B883
March 2, 2007	Ventura County Resource Conservation District; Marty Melvin, District Manager	B884 to B885
	Comments from State Agencies	•

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Discharge of Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) from the Municipal Separate Storm Sewer Systems within the	ıe
Ventura County Watershed Protection District, County of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002	,

March 7, 2007	State of California Department of Transportation; G. Scott McGowen, Chief Environmental Engineer	B886 to B888
	Comments from LA County	
March 7, 2007	County Sanitation Districts of Los Angeles County; Stephen R. Mgguin and Robert Asgian, Division Engineer	B889 to B890
March 7, 2007	Executive Advisory Committee, Stormwater Program - County of Los Angeles; Desi Alvarez, P.E., Chair	B891 to B894
March 7, 2007	County of Los Angeles, Department of Public Works; Donald L. Wolfe, Director and Mark Pestrella, Assistant Deputy Director, Watershed Management Division	B895 to B916
	Comments from Cities Within LA County	
March 12, 2007	City of Inglewood; Tom Leary, Public Works Director	B917 to B923
March 7, 2007	-Coalition-For-Practical-Regulation;-Kenneth-CFarfsing, City-Manager, City of Signal Hill	B924 to B926
March 7, 2007	City of Long Beach, Department of Public Works - Stormwater Management Division; Tom Leary	B927 to B929
March 6, 2007	City of Carson; Patricia Elkins, Building Construction Manager	B930 to B937
	Record For Comment Letters Received by April 5, 2007 Deadline, draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, December 27, 2006, NPDES PERMIT NO. CAS004002	
	Comments from Associations	
March 7, 2007	California Stormwater Quality Association (CASQA); Bill Busath, Chair	B938 to B947
March 7, 2007	Construction Industry Coalition on Water Quality - Building Industry Association of Southern California; Mark Grey, Ph.D., Director of Environmental Affairs, & Geosyntec Consultants; Linsa Austin, Donna Bodine, and Eric Strecker	B948 to B978
March 7, 2007	Legal Defense Foundation; Andrew R. Henderson, General Counsel Building Industry and Building Industry Association/Greater L.A. Ventura Chapter; Holly Schroeder, Chief Executive Director	B979 to B1105
March 1, 2007	Local Government Commission; Judy Corbett, Executive Director	B1106 to B1113

Discharge of Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) from the Municipal Separate Storm Sewer Systems within the
Ventura County Watershed Protection District, County of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002

Ventura County watersited Trotection	Comments from Environmental Groups	
March 7, 2007	Heal The Bay; Kirsten James, Staff Scientist	B1114 to B1120
March 6, 2007	Natural Resource Defense Council (NRDC); Michelle Mehta, Project Attorney	B1121 to B1305
	Comments from Businesses/Companies	
March 7, 2007	Brash Industries; Marvin H. Sachse, P.E., CPESC, CPSWQ	B1306
March 2, 2007	Environmental Compliance Services (TECS); Ray Tahir	B1307 to B1315
February 26, 2007	CONTECH Stormwater Solutions Inc.; Vaikko Allen II, CPSWQ, Regulatory Relations Manager-West	B1316 to B1322
	Comments from Residents	
March 7, 2007	Form e-mail, Proposed Stormwater Permit Won't Clean Our Water!; Various Residents	B1323 to B1324
March 7, 2007	Form e-mail, Water Permit Threatens Housingl; Various Residents	B1325 to B1326
March 7, 2007	Form e-mail, Don't Encourage Sprawl!; Various Residents	B1327 to B1328
March 7, 2007	Form e-mail, Stormwater Will Stifle Business Growth!; Various Residents	B1329 to B1330
March 7, 2007	Form e-mail, Proposed Permit Levies Unfunded Mandates!; Various Residents	B1331 to B1332
March 6, 2007	Resident of the City of Simi Valley; Ginn Doose	B1333 to B1334
March 6, 2007	Resident of the City of Simi Valley; Theresa Jordan	B1335 to B1338
	Record For Comment Letters Received Late After March 7, 2007 Deadline, draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, December 27, 2006, NPDES PERMIT NO. CAS004002	
	Comments from Associations Received Late After March 7, 2007 Deadline	

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	March 26, 2007	Surfrider Foundation - Ventura County Chapter - Matilija Coalition; A. Paul Jenkin, Environmental Director	B1339 to B1344
		Comments from Residents Received Late After March 7, 2007 Deadline	
	March 8 & 19, 2007	Form e-mail, Stormwater Will Stifle Business Growth!; Various Residents	B1345 to B1346
	March 8, 9 & 14, 2007	Form e-mail, Don't Encourage Sprawl!; Various Residents	B1347 to B1348
	March 8, 9 & 12, 200 <b>7</b>	Form e-mail, Water Permit Threatens Housing!; Various Residents	B1349 to B1350
	March 8 & 11, 2007	Form e-mail, Proposed Stormwater Permit Won't Clean Our Water!; Various Residents	B1351 to B1352
	March 8 & 11, 2007	Form e-mail, Proposed Permit Levies Unfunded Mandates!; Various Residents	B1353 to B1354
		Comments from Permittees Received Late After March 7, 2007 Deadline	
<b></b>	May 23, 2007	City of Ojai; Carol Smith, Mayor	B1355 to B1356
	May 16, 2007	City of Port Hueneme; Maricela P. Morales, Mayor	B1357 to B1358
	April 3, 2007	City of Fillmore; Bert J. Rapp, P.E., Public Works Director	B1359 to B1360
		Comments Received on Posted Comment Letters - draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, December 27, 2006, NPDES PERMIT NO. CAS004002	- -
	April 12, 2007	Resident of the City of Simi Valley; Theresa Jordan	B1361 to B1363
		Meetings with Associated Handouts, draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
	September 17, 2007	Meeting at LA-RWQCB with Geosyntec Consultants, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition on Water Quality (CICWQ), and LARWQCB Staff	B1364
	July 17, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittee, City of Los Angeles, Southern California Coastal Water Research Project, Santa Monica Bay Restoration, City of Los Angeles-EMD, Los Angeles County- SD, Los Angeles County Dept. of Public Works, Heal The Bay, County of	B1365 to B1370

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1.	Orange, Aquatic Bioassay, and LARWQCB Staff	
July 9, 2007	Meeting at LA-RWQCB with Geosyntec Consultants, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition on Water Quality (CICWQ), and LARWQCB Staff	B1371 to B1398
July 5, 2007	Meeting at LA-RWQCB with Geosyntec Consultants, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition on Water Quality (CICWQ), Michael Levy (Senior Staff Counsel- LARWQCB), Jennifer L. Fordyce (Staff Counsel- LARWQCB), and LARWQCB Staff	B1399 to B1400
July 5, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees (Gerhardt Hubner & Viki Musgrove), Larry Walker Associates, Tess Dunham (Somach, Simmons & Dunn-Ventura Counsel), Michael Levy (Senior Staff Counsel- LARWQCB), and LARWQCB Staff	B1401 to B1402
June 27, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees, Larry Walker Associates, Charles Abbott Associates, Geosyntec Consultants, Building Industry Association (BIA), Collation for Practical Regulation (CPR), Los Angeles City, Michael Levy (Senior Staff Counsel- LARWQCB), and LARWQCB Staff	B1403 to B1417
June 27, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees, Larry Walker Associates, and LARWQCB Staff	B1418 to B1430
June 13, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees, Larry Walker Associates, City of Downey, Collation for Practical Regulation (CPR), Heal The Bay, Natural Resources Defense (NRDC), Geosyntec Consultants, Building Industry Association (BIA), Los Angeles City, Los Angeles County Dept. of Public Works, Jennifer L. Fordyce (Staff Counsel- LARWQCB), and LARWQCB Staff	B1431 to B1449
June 13, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees, Larry Walker Associates, Jennifer L. Fordyce (Staff Counsel- LARWQCB), and LARWQCB Staff	B1450 to B1466
June 6, 2007	Meeting at LA-RWQCB with California Stormwater Quality Association (CASQA), County of Orange, Larry Walker Associates, and LARWQCB Staff	B1467 to B1481
June 1, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees (Cities of Ventura and Camarillo), Larry Walker Associates, City of Downey, Los Angeles County Dept. of Public Works, Heal The Bay, and LARWQCB Staff	B1482 to B1526
May 31, 2007	Meeting at LA-RWQCB with Building Industry Association (BIA), Geosyntec Consultants, and LARWQCB Staff	B1527 to B1528

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	May 29, 2007	Meeting at LA-RWQCB with California State Dept. of Health Services, and LARWQCB Staff	B1529 to B1624
	May 9, 2007	Meeting at LA-RWQCB with California Stormwater Quality Association (CASQA), and LARWQCB Staff	B1625 to B1629
		Meetings with Associated Handouts, draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
	May 8, 2007	Meeting at LA-RWQCB with Ventura County MS4 Permittees, Larry Walker Associates, Michael Levy (Senior Staff Counsel- LARWQCB), and LARWQCB Staff	B1630 to B1657
	April 25, 2007	Meeting at LA-RWQCB with Southern California Coastal Water Research Project, Santa Monica Bay Restoration, Heal The Bay, City of Los Angeles-EMD, Los Angeles County-SD, County of Orange, and LARWQCB.	B1658 to B1659
		Meetings with Associated Handouts, draft Ventura County Municipal Separate Storm Sewer System Permit December 27, 2006, NPDES Permit No. CAS004002	
(1)# 	April 3, 2007	Meeting at LA-RWQCB with Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition on Water Quality (CICWQ), and LARWQCB Staff	B1660 to B1663
	March 29, 2007	Meeting at LA-RWQCB with Los Angeles DWP, Metropolitan Water District, Calleguas Water District, and LARWQCB.	B1664 to B1665
	February 9, 2007	Meeting at LA-RWQCB with Larry Walker Associates, California Stormwater Quality Association (CASQA), and LARWQCB.	B1666
		Comments and/ or Documents From Permittees and Associations Received From Meetings Held After Workshop #1 (April 7, 2007) on the 1st draft of the Ventura County Municipal Separate Storm Sewer System (MS4) Permit, December 27, 2006, NPDES PERMIT NO. CAS004002	
	August 15, 2007	Draft CASQA White Paper – Quantifiable Approach to Municipal Stormwater Program Implementation and Permit Compliance Determination; California Stormwater Quality Association (CASQA) Geoff Brosseau, Executive Director	B1667 to B1687
	August 15, 2007	Ventura Countywide Stormwater Quality Management Program, Small Communities Tiered Permit Approach Draft for Discussion; Ventura Countywide Stormwater Quality Management Program; Hubner, G.	B1688 to B1690
	July 30, 2007	Ventura County Non-Urban Areas; Ventura Countywide Stormwater Quality Management Program; Paul Tantet, Engineering Manager,	B1691 to B1698a

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		Ventura County Public Works Agency	
Vol. 2	July 23, 2007	Planning & Land Development Program, Section "E" of draft Permit; Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	B1699 to B1774
	July 20, 2007	Building Industry Association of Southern California (BIASC), Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), & Construction Industry Coalition on Water Quality (CICWQ); Mark Grey, Ph.D., Director of Environmental Affairs, Melissa Poole, Nossaman Guthner Knox & Elliott LLP	B1775 to B1955
	July 19, 2007	City of Ventura Hillside and Grading Policies; Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair and Nancy Broschart, City of Ventura, Maintenance Services	B1956 to B1960
	July 11, 2007	Issue Paper For Development Construction Program and Section "F" Language of draft Permit, County of Ventura Countywide Stormwater Quality Management Program; Hubner, G.	B1961 to B1974
	June 29, 2007	Building Industry Association of Southern California (BIASC), Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), & Construction Industry Coalition on Water Quality (CICWQ); Mark Grey, Ph.D., Director of Environmental Affairs, Melissa Poole, Nossaman Guthner Knox & Elliott LLP	B1975 to B2034
		Letters/ Correspondence- From: Heal The Bay, To: RWQCB-LA, draft Ventura County Municipal Separate Storm Sewer System Permit, December 27, 2006, NPDES Permit No. CAS004002	
	July 9, 2007	Heal The Bay, Gold, M.	B2035
<i>,</i>		Documents Received Via E-Mail, draft Ventura County Municipal Separate Storm Sewer System Permit (12-27-06) NPDES Permit No. CAS004002	
	February 12, 2007	Using Site Design Techniques to Meet Development Standards for Stormwater Quality (May, 2003); Bay Area Stormwater Management Agencies Association and Stormwater Quality Planning for New Development and Redevelopment (January, 2003); Section 2.4 & 2.4.1 California Stormwater BMP Handbook. From: Geoff Brosseau, Executive Director, California Stormwater Quality Association (CASQA)	B2036 to B2061
		White Paper	

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	July 18, 2007	White Paper from Local Government Commission; Nancy Mathison	B2062 to B2073
Volume	Date	Document	Page
Vol. 1		2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit No. CAS004002	
	August 28, 2006	2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit, Order 07-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein; RWQCB-LA.	C1 to C124
	~	2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit, Order 07-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within	C125_to_C136
		The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein, Attachment A-E; RWQCB-LA.	
		2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit, Order 07-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein, Attachment F; RWQCB-LA.	C137 to C158
		2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit, Order 07-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein, Attachment G; RWQCB-LA.	C159 to C162
		2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit, Order 07-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein, Attachment H; RWQCB-LA.	C163 to C195

		Public Notice with Cover Letter for 2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit No. CAS004002	
	August 23, 2007	Public Notice with Cover Letter for 2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07) NPDES Permit No. CAS004002, Workshop; RWQCB-LA	C196 to C197
	August 23, 2007	Confirmation of Order 1189901, (Government Public Notice); Vermyil Thomas, Daily Journal Corporation	C198
		Notice of Public Meeting/Hearing, Thursday, September 20, 2007, The City of Ventura (City Council Chambers) For 2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07), NPDES Permit No. CAS004002	
	September 10, 2007	Notice of Public Meeting/Hearing, Thursday, September 20, 2007, The City of Ventura (City Council Chambers) For 2nd draft Ventura County Municipal Separate Storm Sewer System Permit (08-28-07) NPDES Permit No. CAS004002	C199 to C206
		Order of Proceedings for Item Number 5 - Order of Workshop - Regional Board Meeting, September 20, 2007, For 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, (08-28-07), NPDES Permit No. CAS004002	
	September 12, 2007	Order of Proceedings for Item Number 5 - Order of Workshop - Regional Board Meeting, September 20, 2007 For 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, (08-28-07), NPDES Permit No. CAS004002	C207 to C209
• .		Workshop Presentations (September 20, 2007), 2nd draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit August 28, 2007, NPDES Permit No. CAS004002	
	September 20, 2007	Workshop Presentation 2nd draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit, August 28, 2007, NPDES Permit No. CAS004002; RB4 Staff, Storm Water Permitting	C210 to C230
· ·	September 20, 2007	Workshop Presentation, Ventura Countywide Program Municipal Stormwater Program and Draft RWQCB Permit; Ventura Countywide Stormwater Quality Management Program	C231 to C237
-	September 20, 2007	Workshop Presentation, Small Communities Issues; Bert Rapp, Ventura Countywide Stormwater Quality Management Program	C238 to C247
	September 20, 2007	Workshop Presentation, Stormwater Quality Monitoring; Arne Anselm, Ventura County Watershed Protection District	C248 to C260
	September 20, 2007	Workshop Presentation, Jurisdictional Concerns; Paul Tantet, County of Ventura	C261 to C267

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September 20, 2007	Workshop Presentation, Additional Treatment Control BMP Installation at All Critical Source Facilities; Anita Kuhlman, City of Camarillo	C268 to C272
September 20, 2007	Workshop Presentation, Trash Excluders; Shaun Kroes, City of Moorpark	C273 to C281
September 20, 2007	Workshop Presentation, Hydrologic Control Issues; Bill O'Brien, City of Ojai	C282 to C299
September 20, 2007	Workshop Presentation, TMDL Program Consistency; Mark Pumford, City of Oxnard	C300 to C312
September 20, 2007	Workshop Presentation, Public Information and Participation Program; Fred Camarillo, City of Port Hueneme	C313 to C315
September 20, 2007	Workshop Presentation, Low Impact Development (LID); Kevin Gieschen, City of Simi Valley	C316 to C323
	Workshop Presentations (September 20, 2007), 2nd draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit August 28, 2007, NPDES Permit No. CAS004002	· · ·
September 20, 2007	Workshop Presentation, Public Construction Activities and Long Term Maintenance Programs; Jay Spurgin, City of Thousand Oaks	
September 20, 2007	Workshop Presentation, Municipal Action Levels; Vicki Musgrove, City of Ventura	C330 to C348
September 20, 2007	Workshop Presentation, BIA of Southern California—Greater Los Angeles-Ventura Chapter and Construction Industry Coalition on Water Quality; Mark Grey, Technical Director, BIASC/CICWQ	C349 to C358
September 20, 2007	Workshop Presentation, Municipal Action Levels & Assessing Compliance and Effectiveness; Geoff Brosseau, California Stormwater Quality Association (CASQA)	C359 to C366
September 20, 2007	Workshop Presentation Comments on the Second Draft Ventura County MS4 Permit; Heal The Bay and Natural Resources Defense Council (NRDC)	C367 to C395
September 20, 2007	Workshop Presentation, Low Impact Development (LID); Natural Resources Defense Council (NRDC)	C396 to C413
	Board Meeting/ Workshop Transcript (September 20, 2007), 2nd draft County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit August 28, 2007, NPDES Permit No. CAS004002	
September 20, 2007	Board Meeting/ Workshop (Transcript) State of California Los Angeles Regional Water Quality Control Board, The City of Ventura, City Council Chambers, September 20, 2007	C414 to C528
	Time Extension for Comments - 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES	

		Permit No. CAS004002	
	Charles and the second state of	E-Mail From: Los Angeles Regional Water Quality Control Board, To:	
	September 24, 2007	Ventura County Permittees; Subject: Time Extension for comments to	C529 to C530
		the draft Ventura County MS4 Permit.	
		E-Mail From: Los Angeles Regional Water Quality Control Board, To:	·
		Businesses (MCohen@rwglaw.com, rwatson@rwaplanning.com,	
		hschroeder@biaglav.org, mgrey@biasc.org, LAustin@Geosyntec.com,	
		mpoole@nossaman.com, mlcoffee@Nossaman.com,	
	×	angietam@caaprofessionals.com, lcoe-juell@citymb.info,	
		mailto.bweber@edcnet.org, kmoran@tdcenvironmental.com,	
	September 24, 2007	MCohen@rwglaw.com, LBond@rwglaw.com, nisenson@comcast.net,	C531 to C532
		tcw@penfieldsmith.com, john.kosco@tetratech-ffx.com,	
		Martina.Keefe@tetratech.com, geoff@brosseau.us,	
	-	steve.carter@tetratech-ffx.com, wes.ganter@pgenv.com,	
		mackw@lwa.com, ron@wspa.org); Subject: Extension for comments to	
		the 2nd draft Ventura County MS4 Permit.	
·		E-Mail From: Los Angeles Regional Water Quality-Control-Board, To:	/
		Municipalities and County Associations (ggreene@downeyca.org,	
•		jmillett@rwaplanning.com, Tom_Leary@longbeach.gov,	
		myeager@dpw.sbcounty.gov, ageorge@dpw.lacounty.gov,	
		bdepoto@dpw.lacounty.gov, fwu@dpw.lacounty.gov,	
	September 24, 2007	mpestrel@dpw.lacounty.gov, robert.vega@lacity.org,	C533 to C534
		ayman.jabbouri@lacity.org, ammar.eltawil@lacity.org,	
	-	shahram.kharaghani@lacity.org, canderson@lgc.org,	
		cmink@ci.calabasas.ca.us, Richard.boon@rdmd.ocgov.com; Subject:	
		Extension for comments to the 2nd draft Ventura County MS4 Permit.	
		E-Mail From: Los Angeles Regional Water Quality Control Board, To:	
		Environmental Organizations (kjameš@HealTheBay.org,	
		mgold@HealTheBay.org, bjacobsen@nrdc.org, dbeckman@nrdc.org,	0505 / 0500
	September 24, 2007	mmehta@nrdc.org, cleanwater@sfo.com, info@sbck.org,	C535 to C536
		edc@edcnet.org, pjenkin@sbcglobal.net); Subject: Extension for	
		comments to the 2nd draft Ventura County MS4 Permit.	
		E-Mail From: Los Angeles Regional Water Quality Control Board, To:	· · · · · · · · · · · · · · · · · · ·
		Government Agencies (tduffey@coastal.ca.gov,	
	September 24, 2007	awanger@coastal.ca.gov, PHammer@waterboards.ca.gov,	
		DBowyer@waterboards.ca.gov, ggearheart@waterboards.ca.gov,	C537 to C538
		bfujimoto@waterboards.ca.gov, molloy.jennifer@epa.gov,	
		Faulk.Jack@epa.gov, Cleland.Bruce@epamail.epa.gov,	4
		Kozelka.Peter@epa.gov, pme25@comcast.net,	

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		estornell.paula@epa.gov, ruf.christine@epa.gov); Subject: Extension for comments to the 2nd draft Ventura County MS4 Permit.	
		Time Extension for Comments - 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
	August 31, 2007	Letter From: Ventura Countywide Stormwater Quality Management Program; Hubner, G. To: RB4; Smith D.; Subject: Request for Extension of Written Public Comment Period - Second Draft Ventura County Municipal Separate Storm Sewer System Order (No. CAS004002)	C539 to C540
		Letters/ Correspondence- From: Board of Supervisors County of Ventura, To: RWQCB-LA, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
	October 30, 2007	Letter/ Correspondence, Regarding: Request for Additional Public Workshop on Proposed Municipal Stormwater Permit for Ventura Countywide Program (NPDES No. CAS004002); Parks, Linda	C541 to C542
×		Letters/ Correspondence- From: Assembly California Legislature, Pedro Nava - Assembly Member, Thirty-Fifth District To: RWQCB- LA, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
÷	October 30, 2007	Letter/ Correspondence, Regarding: Ventura County MS-4 Draft Permit NPDES Permit No. CAS004002; Assemblymember Pefro Nava, Aassemblymember Julia Brownley, Assemblymember Audra Strickland, Assemblymember Cameron Smyth, Senator George Runner, and Senator Sheila Kuehl	C543 to C544
<u>.</u>		Letters/ Correspondence- From California Department of Finance, To: Commission on State Mandates, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	, .
	March 27, 2008	Letter/ Correspondence, Regarding: Regarding: CSM-03-TC-04, "Transit Trash Receptacles", CSM-03-TC-019, "Inspection of Industrial/Commercial Facilities, CSM-03-TC-20, "Waste Discharge Requirements, CSM-03-TC-21, "Stormwater Pollution Control Requirements, California Regional Water Quality Control Board's Executive Order #01-182 (test claim permit), California Department of Finance review of the test claims submitted by the County of Los Angeles and several cities (claimants) asking the Commission on State Mandates (Commission) to determine whether specified costs incurred under the test claim permit are reimbursable state mandated costs; California Department of Finance	C545 to C630

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	Letters/ Correspondence- From Ventura County Watershed Protection District, To: RWQCB-LA, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
March 20, 2008	Letter/ Correspondence, Subject: Proposed Modification to Instream Bioassessment Monitoring Work Plan Under Ventura County Municipal Separate Storm Sewer System Permit (NPDES Permit No. CAS004002) To Synchronize Efforts With The Southern California Stormwater Monitoring Coalition's Regional Watershed Monitoring Program; Hubner, Gerhardt	C631 to C632
	Letters/ Correspondence- From: RWQCB-LA, To: Ventura Countywide Stormwater Quality Management Program, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
April 25, 2008	Letter/ Correspondence, Regarding: Request to Modify Bioassessment Monitoring Program Required Under the Ventura County Municipal Separate Storm Sewer System Permit (MS4) Permit (Board Order No. 00-108, NPDES Permit No. CAS004002); RWQCB-LA	C633 to C634
	Comments Received During Workshop - Regional Board Meeting, September 20, 2007, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
September 20, 2007	Comments Received During Workshop - Regional Board Meeting, September 20, 2007, 2nd draft Ventura County MS4 Permit, NPDES Permit No. CAS004002, August 28, 2007; California Coastal Commission	C635
September 20, 2007	Comments Received During Workshop - Regional Board Meeting, September 20, 2007, 2nd draft Ventura County MS4 Permit, NPDES Permit No. CAS004002, August 28, 2007; Jensen Design & Survey, Inc.	C636 to C637
	Record for Comment Letters Received By October 15, 2007 Deadline, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
	Comments from Permittees	
October 15, 2007	Ventura County Watershed Protection District; Jeff Pratt, Director	C638 to C642
October 15, 2007	County of Ventura Public Works Agency, #1; Ronald C. Coons, Director	C643 to C653

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Ventura County Watershed Protection District, Count	y of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002

per 15, 2007	County of Ventura Public Works Agency, #2; Ronald C. Coons, Director	C654 to C657
oer 15, 2007	City of Ojai; Jere A. Kersnar, City Manager	C658 to C659
per 15, 2007	City of Moorpark; Yugal K. Lall, Public Works Director	C660 to C661
per 15, 2007	City of Port Hueneme; Maricela P. Morales, Mayor	C662 to C663
oer 15, 2007	City of Thousand Oaks; Mark D. Watkins, Public Works Director	C664 to C665
per 14, 2007	City of Oxnard; Mark R. Pumford for Mark S. Norris, Assistant Public Works Director	C666 to C673
per 12, 2007	City of Ventura; Ronald J. Calkins, Director of Public Works	C674 to C675
oer 12, 2007	City of Simi Valley, Mike Sedell, City Manager	C676 to C678
per 12, 2007	City of Camarillo; Jerry Bankston, City Manager	C679 to C680
per 12, 2007	Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	C681 to C894
	Comments from Ventura County Associations/Agencies/Districts	
nber 19, 2007	Ventura County Agricultural Association; Robert P. Roy, President and General Counsel	C895
	Comments from LA County	
per 15, 2007	County of Los Angeles Department of Public Works; Donald L. Wolfe, Director of Public Works for Mark Pestrella, Assistant Deputy Director, Watershed Management Division	C896 to C899
per 15, 2007	Executive Advisory Committee Stomwater Program - County of Los Angeles; Gerald E. Greene, Chair	C900 to C901
	Comments from Cities Within LA County	· .
per 15, 2007	Department of Water and Power the City of Los Angeles, #2; Katherine Rubin, Interim Manager Wastewater Quality Compliance	C902 to C905
per 15, 2007	Coalition For Practical Regulation; Larry Forester, CPR Steering Committee, City Council Member, City of Signal Hill	C906 to C913
	Der 15, 2007 Der 15, 2007 Der 15, 2007 Der 15, 2007 Der 14, 2007 Der 12, 2007 Der 12, 2007 Der 12, 2007 Der 12, 2007 Der 12, 2007 Der 15, 2007 Der 15, 2007 Der 15, 2007	Der 15, 2007       City of Ojai; Jere A. Kersnar, City Manager         Der 15, 2007       City of Moorpark; Yugal K. Lall, Public Works Director         Der 15, 2007       City of Port Hueneme; Maricela P. Morales, Mayor         Der 15, 2007       City of Thousand Oaks; Mark D. Watkins, Public Works Director         Der 14, 2007       City of Oxnard; Mark R. Pumford for Mark S. Norris, Assistant Public         Works Director       City of Ventura; Ronald J. Calkins, Director of Public Works         Der 12, 2007       City of Ventura; Ronald J. Calkins, Director of Public Works         Der 12, 2007       City of Camarillo; Jerry Bankston, City Manager         Der 12, 2007       City of Camarillo; Jerry Bankston, City Manager         Der 12, 2007       City of Camarillo; Jerry Bankston, City Manager         Der 12, 2007       Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair         Comments from Ventura County Associations/Agencies/Districts         Ner 19, 2007       Ventura County Agricultural Association; Robert P. Roy, President and General Counsel         County of Los Angeles Department of Public Works; Donald L. Wolfe, Director of Public Works for Mark Pestrella, Assistant Deputy Director, Watershed Management Division         Der 15, 2007       Executive Advisory Committee Stomwater Program - County of Los Angeles; Gerald E. Greene, Chair         Department of Water and Power the City of Los Angeles, #2; Katherine Rubin, Interim Manager Wastew

Discharge of Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002

	June 8, 2007	Department of Water and Power the City of Los Angeles, #1; James D. McDaniel, Chief Operating Officer	C914 to C916
		Comments from Associations/Commissions/Districts	
	October 15, 2007	California Stormwater Quality Association (CASQA); Geoff Brosseau, Executive Director	C917 to C921
	October 15, 2007	Building Industry Association of Southern California, Inc.; Andrew R. Henderson, Vice President and General Counsel	C922 to C975
· .	October 15, 2007	Consturction Industry Coalition On Water Quality; Mark Grey, PhD., Technical Director	C976 to C978
,	October 15, 2007	Calleguas Municipal Water District; Donald R. Kendall, PhD., P.E., General Manager	C979
	October 15, 2007	Western States Petroleum Association; Michaeleen Mason, Director, Statewide Regulatory Issues	C980 to C987
	October 15, 2007	Calleguas Creek Watershed Management Plan; Donald R. Kendall, Ph.D., P.E., Chair	C988
	October 15, 2007	AGC California, Tri-Counties District; Tony Morelli, District Manager	C989 to C991
	October 12, 2007	Local Government Commission; Clark Anderson	C992 to C1008
		Comments from Environmental Groups	
	October 15, 2007	Natural Resource Defense Council and Heal The Bay; David Beckman, Senior Attorney, NRDC, Mark Gold, President, Heal the Bay, Kirsten James, Staff Scientist, Heal the Bay	C1009 to C102
	September 13, 2007	Surfrider Foundation - Ventura County Chapter - Matilija Coalition; A. Paul Jenkin, Environmental Director	C1026 to C102
		Comments from Businesses/Companies	
	October 15, 2007	Contech Stormwater Solutions, Inc.; Vaikko Allen, Regulatory Manager- Southwest	C1030 to C103
	October 15, 2007	Blois Construction, Inc.; Steve Blois	C1038 to C103
	October 15, 2007	Union Engineering Company, Inc.; Ernest L. Ford, President	C1040
	September 28, 2007	Golden State Water Company; William C. Gedney	C1041 to C104

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September 19, 2007	Jensen Design & Survey, Inc.; Ron Jensen, Susanne Cooper, Robert Talmadge	C1046 to C1047
	Comments from Residents	
October 15, 2007	Resident; Brenda-Superseal	C1048
September 24, 2007	Form e-mail, Stormwater Will Stifle Business Growth!; Mark May	C1049
September 20, 2007	Resident of the City of Simi Valley; Ginn Doose	C1050 to C1051
September 19, 2007	Form e-mail, Water Permit Threatens Housing!; Various Residents	C1052 to C1055
September 18, 2007	Form e-mail, Proposed Stormwater Permit Won't Clean Our Waterl; Various Residents	C1056 to C1058
September 18, 2007	Form e-mail, Proposed Permit hurts cities, taxpayers, and businesses!; Various Residents	C1059 to C1061
September 17, 2007	Resident of the City of Simi Valley; Mrs. Theresa Jordan	C1062 to C1067
	Record For Comments Received Late After October 15, 2007 Deadline, 2nd draft Ventura County Municipal Separate Storm Sewer System (MS4) Permit, August 28, 2007, NPDES PERMIT NO. CAS004002	
	Comments from Permittees Received Late After October 15, 2007 Deadline	
 October 31, 2007	City of Santa Paula; Wally Bobkiewicz, City Manager	C1068 to C1069
October 16, 2007	City of Fillmore; Bert J. Rapp, P.E., Public Works Director	C1070 to C1084
	Meetings with Associated Handouts, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	
October 3, 2007	Meeting at LA-RWQCB with Geosyntec Consultants, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition On Water Quality (CICWQ), and LARWQCB Staff	C1085
March 13, 2008	Meeting at LA-RWQCB with Ventura County MS4 Permittees (City of Camarillo, Fillmore, Simi Valley, and Watershed Protection District), Larry Walker Associates, and LARWQCB Staff	C1086 to C1100

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ventura	a County watershed Protection	District, County of Ventura and the Unincorporated Cities Therein; NPDES Pe	FIIII 140. CAS004002
	February 28, 2008	Meeting at Ventura County Government Center, Hall of Justice - Pacific Conference Room with Ventura County MS4 Permittees, Larry Walker Associates, Somach, Simmons & Dunn (Ventura Counsel), County of Ventura Public Works Agency, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Los Angeles County Dept. of Public Works, Richard Watson Association, Michael Levy (Senior Staff Counsel- LARWQCB), and LARWQCB Staff	C1101 to C1104
	February 27, 2008	Meeting at Ventura County Government Center, Hall of Justice - Pacific Conference Room with Ventura County MS4 Permittees, Larry Walker Associates, Somach, Simmons & Dunn (Ventura Counsel), County of Ventura Public Works Agency, County of Orange, San Bernardino Flood Control District, Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), Construction Industry Coalition on Water Quality (CICWQ), Geosyntec Consultants, Collation for Practical Regulation (CPR), Los Angeles City, Los Angeles County Dept. of Public Works, University of California Sea Grant, Natural Resources Defense (NRDC), Heal The Bay, Ventura CoastKeeper, California Stormwater Quality Association (CASQA), Local	C105 to C1111
	January 9, 2008	Government Commission, California Coastal Commission, Jeff Ogata         (Staff Counsel III (Specialist) - RWQCB), and LARWQCB Staff         Meeting at LA-RWQCB with Drinking Water Purveyors (Calleagues         MWD, City of Camarillo, LADWP, Golden State, and LARWQCB Staff)	C1112
		Comments and/ or Documents From Permittees and Associations Received From Meetings Held After Workshop #2 (August 28, 2007) on the 2nd draft of the Ventura County Municipal Separate Storm Sewer System (MS4) Permit, August 28, 2007, NPDES PERMIT NO. CAS004002	· · ·
	March 18, 2008	Proposal for Stormwater Monitoring (Urban Outfall Discharge Monitoring and Response Plan) and Maps (Countywide and Individual Permittees), and Strikeout/Redline of Part 5 of 2nd Draft SW Permit (minus Part E - Planning & Land Development, and changes to Grading Restrictions under the Construction Program); Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	C1113 to C1168
	April 18, 2008	Hydromodification and Hydrologic Controls Strikeout/Redline of Hydromodification Aspects of 2nd Draft NPDES Permit (No. CAS004002) for Ventura County; Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	C1169 to C1176
`		Presentations Given By Regional Water Board Staff - 2nd draft Ventura County Municipal Separate Storm Sewer System Permit, August 28, 2007, NPDES Permit No. CAS004002	

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V Chitur a	November 29, 2007	Presentation at SCAG - Water Policy Task Force Meeting, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit; Xavier Swamikannu	C1177 to C1217
	December 7, 2007	Presentation at Psomas Breakfast Meeting Program, Proposed Planning & Land Development Program Requirement Changes in Ventura and Los Angeles Counties, 2nd draft Ventura County Municipal Separate Storm Sewer System Permit; Xavier Swamikannu	C1218 to C1228
Volume	Date	Document	Page
Vol. 1		Draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08), NPDES Permit No. CAS004002	
	April 29, 2008	draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08), NPDES Permit, Order 08-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements For Storm Water Discharges From The Municipal Separate Storm Sewer System Within The Ventura County Watershed Protection District, County Of Ventura And The Incorporated Cities Therein; RWQCB-LA.	D1 to D193
		Public Notice with Cover Letter for draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08), NPDES Permit No. CAS004002	
	April 24, 2008	Public Notice with Cover Letter for draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08) NPDES Permit No. CAS004002, Workshop; RWQCB-LA	D194 to D195
	April 25, 2008	Confirmation of Order 1329915, (Government Public Notice); Vermyil Thomas, Daily Journal Corporation	D196 to D198
		Public Notice - Change of Venue with Cover Letter for draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08), NPDES Permit No. CAS004002	
	June 24, 2008	Public Notice - Change of Venue with Cover Letter for draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29- 08) NPDES Permit No. CAS004002, Workshop; RWQCB-LA	D199 to D200
	June 23, 2008	Confirmation of Order 1373608, (Government Public Notice); Vermyil Thomas, Daily Journal Corporation	D201
<u> </u>		Notice of Public Meeting/Hearing, Thursday, July 10, 2008, The City of Ventura (City Council Chambers) For draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (04-29-08), NPDES Permit No. CAS004002	
· · ·	June 20, 2008	Notice of Public Meeting/Hearing, Thursday, July 10, 2008, County Government Center, Hall of Administration, Board of Supervisors Hearing Room, For draft Tentative Ventura County Municipal Separate	D202 to D205

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	Storm Sewer System Permit (04-29-08) NPDES Permit No. CAS004002	
	Notice of Cancellation of Workshop (July 10, 2008) For draft Tentative County of Ventura "Municipal Separate Storm Sewer System" (MS4) Permit April 29, 2008, NPDES Permit No. CAS004002	
July 7, 2007	Notice of Cancellation of Workshop (July 10, 2008) For draft Tentative Ventura County Municipal Separate Storm Sewer System (MS4) Permit April 29, 2008	D206
July 2, 2008	Superior Court of the State of California County of Orange, Central Justice Center; Peremptory Writ of Mandate Case No. 06CC02974; Honorable Thierry Patrick Colaw; Dept: CX-104	D207 to D210
	Record for Comment Letters Received By May 29, 2008 Deadline, draft Tentative Ventura County Municipal Separate Storm Sewer System Permit, April 29, 2008, NPDES Permit No. CAS004002	
	Comments from Permittees	
May 29, 2008	City of Port Hueneme; David J. Norman, City Manager	D211 to D213
May 29, 2008	Ventura County Watershed Protection District; Jeff Pratt, Director	D214 to D217
May 29, 2008	County of Ventura Public Works Agency, Alec T. Pringle, Acting Agency Director	D218 to D236
May 29, 2008	City of Moorpark; Yugal K. Lall, City Engineer/ Public Works Director	D237 to D238
May 29, 2008	City of Thousand Oaks; Jacqui V. Irwin, Mayor	D239 to D263
May 29, 2008	City of Simi Valley, Paul Miller, Mayor	D264 to D265
May 29, 2008	City of Oxnard; Ken Ortega, Public Works Director	D266 to D283
May 29, 2008	City of Ventura; Christy Weir, Mayo and Rick Cole, City Manager	D284 to D291
May 28, 2008	City of Camarillo; Jerry Bankston, City Manager	D292 to D293
May 28, 2008	Ventura Countywide Stormwater Quality Management Program; Gerhardt J. Hubner, Chair	D294 to D494

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	Comments from U.S. Environmental Protection Agency, Region IX	
May 29, 2008	U.S. EPA Region IX; Douglas E. Eberhardt, Chief, NPDES Permits Office	D495 to D497
	Comments from State Of California	
May 29, 2008	Department of Transportation, Division Of Environmental Analysis, MS 27; G. Scott McGowen, Chief Environmental Engineer	D498 to D500
	Comments from LA County	
May 29, 2008	County of Los Angeles Department of Public Works; Dean D. Efstathiou, Acting Director of Public Works and Mark Pestrella, Assistant Deputy Director, Watershed Management Division	D501 to D503
May 29, 2008	Executive Advisory Committee Stomwater Program - County of Los Angeles; Gerald E. Greene, Chair, Executive Advisory Committee	D504 to D509
	Comments from Cities Within LA County	
May 29, 2008	Coalition For Practical Regulation; Larry Forester, City Council Member, City of Signal Hill	D510 to D520
May 28, 2008	Los Angeles River Watershed Management Committee; John Hunter, Chair	D521 to D522
	Comments from Orange County	
May 29, 2008	Orange County Public Works; Chris Crompton, Manager, Environmental Resources	D523
	Comments from San Bernardino County	
May 29, 2008	San Bernardino County Stormwater Program; Naresh P. Varma, P.E., Chief, Environmental Management Division, San Bernardino County Flood Control District	D524 to D526
	Comments from Associations/Commissions/Districts	
May 29, 2008	Local Government Commission; Clark Anderson, Water and Land Use Planning Specialist	D527 to D528
May 29, 2008	Bay Area Stormwater Management Agencies Association (BASMAA); Geoff Brosseau, Executive Director	D529

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Discharge of Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002

May 29, 2008	California Stormwater Quality Association (CASQA); Geoff Brosseau, Executive Director	D530 to D559
May 29, 2008	Building Industry Association - LA/Ventura Chapter; Holly Schroeder, CEO, Building Industry Association of Southern California - LA/Ventura Chapter; Richard Lambros, CEO, Building Industry Association of Southern California; Andrew Henderson, General Counsel, Building Industry Legal Defense Foundation; and Mark Grey, PhD, Director of Environmental Affairs Construction Industry Coalition on Water Quality	D560 to D594
	Comments from Environmental Groups	
May 29, 2008	Heal The Bay; Mark Gold, President, and Kirsten James, Water Quality Director	D595 to D607
May 29, 2008	Wishtoyo Foundation/Ventura Coastkeeper; Matri Waiya, Coastkeeper and Ruby Evans, Project Manager	D608 to D620
May 29, 2008	Natural Resource Defense Council and Heal the Bay; David Beckman and Bert	D621 to D638
	Comments from Businesses/Companies	
May 29, 2008	Kimberly Colbert, and Charles Abbott Associates, Inc.; Kimberly Colbert, Director, Environmental Services Division	D639 to D645
	Comments from Residents	
May 28, 2008	Resident of the City of Simi Valley; Mrs. Theresa Jordan	D646 to D655
May 27, 2008	Resident of the City of Simi Valley; Mrs. Theresa Jordan	D656 to D690
	Record For Comments Received Late After May 29, 2008 Deadline, draft Tentative Ventura County Municipal Separate Storm Sewer System (MS4) Permit, April 29, 2008, NPDES PERMIT NO. CAS004002	
	Comments from Permittees	
July 2, 2008	Audra Strickland, Assemblywoman, 37th District	D691
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	June 5, 2008	City of Santa Paula; Wally Bobkiewicz, City Manager	D694
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	June 25, 2008	City of Brea; John Beauman, Mayor Pro Tem	D728 to D729
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	June 3, 2008	Flood Control District and Water Conservation District; Mark H. Willis, Chief of Regulatory Division	D730 to D732
		Comments from Associations/Commissions/Districts	
	June 26, 2008	Local Government Commission; Clark Anderson, Water and Land Use Planning Specialist	D733 to D756
		Comments from Businesses/Companies	
-	June 10, 2008	Engineering Smart Growth; Paul Crabtree	D757 to D878
	May 30, 2008	CONTECH Stormwater Solutions Inc.; Vaikko Allen II, CPSWQ, Regulatory Relations Manager - West	[/] D879 to D891
		Comments from Residents	
· .	July 20, 2008	Citizens Coalition of Fillmore	D892 to D893
	July 1, 2008	Resident; A. Richard Fitch, Jr.	D894
	June 23, 2008	Resident of the City of Valencia; Terra Donlon	D895 to D896
		Meetings with Associated Handouts, draft Tentative Ventura County Municipal Separate Storm Sewer System (MS4) Permit, April 29, 2008, NPDES Permit No. CAS004002	
	November 21, 2008 thru January 16, 2009	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D897 to D915
	December 29 2008 & December 30, 2008	RWQCB/VC Permittees Parking Lot of Remaining Issues	D916

· entur u	December 5, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D917
	November 21, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D918
	November 7, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D919 to D938
	October 31, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D939
	October 17, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D940 to D970
	October 10, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D971
	May 15, 2008	Meeting at Ventura County Government Center with Ventura County MS4 Permittees, and LARWQCB Staff	D972 to D974
	May 23, 2008	Meeting at LA-RWQCB with Natural Resources Defense (NRDC), Heal The Bay, and LARWQCB Staff	D975
	May 22, 2008	Meeting at LA-RWQCB with Building Industry Association of Southern California/Greater Los Angeles Ventura Chapter (BIAGLA/VC), and LARWQCB Staff	D976
	May 12, 2008	Meeting at LA-RWQCB with Charles Abbott Associate (Angie Tam and Mary Salig), and LARWQCB Staff	D977 to D980
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		Public Notice with Cover Letter for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002	
	February 24, 2009	Public Notice with Cover Letter for draft Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09) NPDES Permit No. CAS004002, May 7, 2009 Board Meeting; Ventura County Board of Supervisors Meeting Room	E226 to E232

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Discharge of Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Unincorporated Cities Therein; NPDES Permit No. CAS004002

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February 24, 2009	Proof of Publication: 09-070 Public Notice- Renewal of Wate Discharge Requirements for Ventura County Star on February 24, 2009	E233 to E234
February 24, 2009	Lyris Mailing List for Ventura on February 24, 2009	E235 to E238
February 24, 2009	Lyris Mailing List for Misc. Ventura on February 24, 2009	E239 to E242
	Staff Report for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002	•
February 24, 2009	Staff Report for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002	E243 to E318
	Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002	
February 24, 2009	Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002	E319 to E354
	Agenda Package for May 7, 2009 Board Meeting	· · · · · · · · · · · · · · · · · · ·
May 7, 2009	Item No. 8- Item Summary: Publc Hearing Receive Comments on the Tentative Ventura County Municipal Separate Storm Sewer System (MS4) Permit on May 7, 2009 NPDES Permit No. CAS004002	E355 to E370
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June 2, 2009	Ventura County Municipal Stormwater Permittees: Retransmittal of the Ventura County Municipal Storm Water National Pollutant Discharge	E1834 to E1977
	February 24, 2009 February 24, 2009 February 24, 2009 February 24, 2009 February 24, 2009 May 7, 2009 May 7, 2009 May 7, 2009 May 7, 2009 May 7, 2009	February 24, 2009       Requirements for Ventura County Star on February 24, 2009         February 24, 2009       Lyris Mailing List for Ventura on February 24, 2009         February 24, 2009       Lyris Mailing List for Misc. Ventura on February 24, 2009         Staff Report for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         Staff Report for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         May 7, 2009       Response to Comments for Tentative Ventura County Municipal Separate Storm Sewer System Permit (02-24-09), NPDES Permit No. CAS004002         May 7, 2009       Agenda Package for May 7, 2009 Board Meeting         May 7, 2009       Agenda: Notice of Public Meeting/ Hearing         May 7, 2009       Sign in Sheets         May 7, 2009       Sign in Sheets         May 7, 2009       Board Presentation         May 7, 2009       Transcript         Final Documents       Ventura County Municipal Stormwater Permittees: Retransmittal of the

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	Elimination System (NPDES) Permit (Board Order No. R4-2009-0057; NPDES Permit No. CAS004002)	
 June 3, 2009	Tentative Order Ventura county Municipal Separate Storm Sewer System Permit (NPDES No. CAS0040002): Change Sheet	E1978 to E1980
 May 7, 2009	Land Jurisdiction in Ventura County, California Order No. 09-0057 NPDES No. CAS004002 Ventura County Municipal Separate Storm Sewer System Permit	E1981 to E1997
May 7, 2009	Reporting Program- No. CI 7388 for Order No. 09-0057 NPDES Permit No. CAS004002 Waste Discharge Requirements Municipal Separate Storm Sewer System Discharges Within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein Attachment H on May 7, 2009	E1998 to E2031
May 7, 2009	Reporting Program- No. CI 7388 for Order No. 09-0057 NPDES Permit No. CAS004002 Waste Discharge Requirements Municipal Separate Storm Sewer System Discharges Within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein Attachment F on May 7, 2009	E2032 to E2054
	Petition from Building Industry Association - Ventura County (BIA)	•
May 29, 2009	Demand from Construction Industry Representatives for Recirculation of Tentative permit for the Ventura County MS4 System	E2055 to E2060

### Theresa Rodgers - CORRECTED LINK TO DOCUMENTS FOR TENTATIVE LA COUNTY MS4 PERMIT

From:	<lyris@swrcb18.waterboards.ca.gov></lyris@swrcb18.waterboards.ca.gov>	
To:	Theresa Rodgers <trodgers@waterboards.ca.gov></trodgers@waterboards.ca.gov>	
Date:	6/6/2012 4:00 PM	
Subject:	CORRECTED LINK TO DOCUMENTS FOR TENTATIVE LA COUNTY MS4 PERMIT	

Tentative Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within The County Of Los Angeles Flood Control District, Including The County of Los Angeles and Incorporated Cities Therein, Except The City Of Long Beach

http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml

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or send a blank email to leave-348292-74153.73238969e4d494a864d5bc6313ac524e@swrcb18.waterboards.ca.gov

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LIST NAME: SW-LA G.

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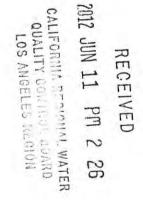
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Appoint ments are encouraged so the documents can be readily available upon arrival. The above - referenced documents are also available on the Board's web site at """ http://www.waterboards.ca. gov/losangeles/html/ Persons wishing to comment or submit evidence on the draft permit and supporting documents are invite to submit them in writies to submit them in writing to low address, or send them electronically to: LAMS42012@waterboards. cagov. To be evaluated and considered by staff and the Los Angeles Water Board all written comments and evidence must be received by the Board by 1200 pm on July 23, 2012. Late submittal of written comments or evidence will not be allowed or accepted into the administrative record for this matter without a showing of good cause for the delay, and in on event if any party or the Board would be unduly prejudiced by the late submittal or if staff or the Board would not have an adequate opportunity to review. consider, and respond to the comments or evidence.

Any person may present oral comments at the public hearing. Persons with similar concerns or opinions are encouraged to choose one representative to speak. Time limitations on presentations will be imposed. For additional information, or to make an appointment

or to make an appointment to review the file, please contact Ivar Ridgeway at (213) 620-2150 or iridgeway@waterboards.ca.

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### DECLARATION

I am a resident of Los Angeles County, over the age of eighteen years and not a party to any or interested in the matter noticed.

The notice, of which the annexed is a printed copy appeared in the:

L.A. TIMES

On the following dates:

1 10

June 7, 2012

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Los Angeles, California, this 7th day of June 2012

Signature

2327809

"The only Public Notice which is justifiable from the standpoint of true economy and the public interest, is that which reaches those who are affected by it"

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STATE OF CALIFORNIA LOS ANGELES REGIONAL WATER QUALITY
CONTROL BOARD
NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT AND NOTICE OF PUBLIC HEARING
DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING UNINCORPORATED CHOS ANGELES AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH (NPDES PERMIT NO. CAS004001)
Dublis Matter Mr. 10 000
NOTICE 1S HEREBY GIVEN that the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) will hold a public hearing to receive comments and evidence, and consider adoption of, the Draft NPES Permit for MS4 discharges within, the Los Angeles County Flood Control District, including unincorporated areas of the County of Los Angeles and the incorporated cities therein, except the City of Long Beach (NPDES Permit No. CAS004001).
September 6-7, 2012 at 9:00 AM Metropolitan Water District of Southern California 700 North Alameda Street Los Angeles, CA 90012
Please check the Board's website (http://www.waterboards. ca.
gov losangeles/) for the most up-to-date public hearing date(s) and location as it is subject to change. The draft normit
supporting documents, and a detailed Notice of Opportunity for Public Comment and Notice of Public Hearing that explains the procedures and deadlines the Los Angeles Water Board will use at this hearing are available for inspection and copying between 8:00 a.m. 4:30 p.m. at the following address:





MATTHEW BODBIOUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION



Los Angeles Regional Water Quality Control Board

TO:

Los Angeles County MS4 Permittees and Interested Persons

FROM:

Renee Purdy Kever Purdy Section Chief **Regional Programs** 

DATE: June 19, 2012

CORRECTION TO ATTACHMENT G, SECTION VIII "MUNICIPAL ACTION SUBJECT: LEVELS" OF DRAFT TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) released the draft tentative Los Angeles County Municipal Separate Storm Sewer System Permit (Tentative LA County MS4 Permit) and supporting documents on June 6, 2012. Since the release, Los Angeles Water Board staff identified an error in the Municipal Action Levels (MALs) contained in Attachment G, Section VIII, pages G-16 to G-17 of the Tentative LA County MS4 Permit. Specifically, the text on page G-17 of the Tentative LA County MS4 Permit describes the MALs as being the upper 25th percentile pollutant concentration based on nationwide Phase I MS4 monitoring data for pollutants in storm water. However, the numbers in the MAL tables on pages G-16 and G-17 for "Conventional Pollutants" and "Metals" were inadvertently included as the *lower* 25th percentile pollutant concentrations.

To correct this error, Los Angeles Water Board staff is hereby issuing a correction sheet that replaces the numbers in the two MAL tables on pages G-16 and G-17 of the June 6, 2012 Tentative LA County MS4 Permit with MALs based on the upper 25th percentile pollutant concentrations that were obtained from the National Stormwater Quality Database v3 (February 2008) for Rain Zone 6. Additionally, Los Angeles Water Board staff is hereby striking the first sentence of the fifth paragraph in Attachment F (Fact Sheet), Section IV.B "Technology-Based Effluent Limitations" on page F-31, which inaccurately describes the intended use of the MALs. As described in the text on page G-17 of Attachment G to the Tentative LA County MS4 Permit, Los Angles Water Board staff proposes that the MALs be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the MALs as a means of prioritizing implementation of storm water controls. These changes are reflected on the correction sheet attached to this memorandum.

Issuance of this correction sheet will not change any of the deadlines established in the Notice of Opportunity for Public Comment and Notice of Public Hearing (Notice) dated June 6, 2012. Consistent with Section VI of the Notice, submittal of written comments and evidence on the Tentative LA County MS4 Permit, including the changes reflected on the attached correction sheet, are still due to the Los Angeles Water Board by 12:00 pm on July 23, 2012.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

June 19, 2012

If you have any questions, please do not hesitate to contact Mr. Ivar Ridgeway at (213) 620-2150 or myself at (213) 576-6622.

- 2 -

**Attachment:** Correction Sheet / Replacement Pages for Attachment G, pages G-16 to G-18 and Attachment F, page F-31

### **RB-AR4316**

Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

	Nickel, Total Recoverable									
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (μg/L)	MDAL (µg/L)		
85.0	37.1	74.5	205.0	78.2	156.9	350.0	123.0	246.7		
90.0	39.0	78.2	210.0	79.8	160.2	360.0	125.9	252.7		
95.0	40.8	81.9	215.0	81.4	163.4	370.0	128.9	258.6		
100.0	42.6	85.5	220.0	83.0	166.6	380.0	131.8	264.5		
105.0	44.4	89.1	225.0	84.6	169.8	390.0	134.8	270.4		
110.0	46.2	92.7	230.0	86.2	173.0	400.0	137.7	276.2		
115.0	48.0	96.2	235.0	87.8	176.1	>400	137.7	276.2		
120.0	49.7	99.8	240.0	89.4	179.3					

Zinc, Total Recoverable									
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (μg/L)	MDAL (µg/L)	
5.0	4.7	9.4	125.0	72.0	144.5	245.0	127.4	255.6	
10.0	8.5	17.0	130.0	74.5	149.4	250.0	129.6	260.0	
15.0	11.9	24.0	135.0	76.9	154.2	255.0	131.8	264.4	
20.0	15.2	30.6	140.0	79.3	159.1	260.0	134.0	268.8	
25.0	18.4	37.0	145.0	81.7	163.9	265.0	136.1	273.1	
30.0	21.5	43.1	150.0	84.1	168.6	270.0	138.3	277.5	
35.0	24.5	49.1	155.0	86.4	173.4	275.0	140.5	281.9	
40.0	27.4	55.0	160.0	88.8	178.1	280.0	142.6	286.2	
45.0	30.3	60.8	165.0	91.1	182.8	285.0	144.8	290.5	
50.0	33.1	66.5	170.0	93.5	187.5	290.0	146.9	294.8	
55.0	35.9	72.1	175.0	95.8	192.2	295.0	149.1	299.1	
60.0	38.7	77.6	180.0	98.1	196.8	300.0	151.2	303.4	
65.0	41.4	83.0	185.0	100.4	201.4	310.0	155.5	312.0	
70.0	44.1	88.4	190.0	102.7	206.0	320.0	159.7	320.5	
75.0	46.7	93.7	195.0	105.0	210.6	330.0	163.9	328.9	
80.0	49.3	99.0	200.0	107.3	215.2	340.0	168.1	337.4	
85.0	51.9	104.2	205.0	109.5	219.8	350.0	172.3	345.8	
90.0	54.5	109.4	210.0	111.8	224.3	360.0	176.5	354.1	
95.0	57.1	114.5	215.0	114.0	228.8	370.0	180.6	362.4	
100.0	59.6	119.6	220.0	116.3	233.3	380.0	184.8	370.7	
105.0	62.1	124.7	225.0	118.5	237.8	390.0	188.9	379.0	
110.0	64.6	129.7	230.0	120.7	242.3	400.0	193.0	387.2	
115.0	67.1	134.7	235.0	123.0	246.7	>400	193.0	387.2	
120.0	69.6	139.6	240.0	125.2	251.2				

# TENTATIVE

ORDER NO. R4-2012-XXXX

NPDES NO. CAS004001

### MUNICIPAL ACTION LEVELS VIII.

### **Conventional Pollutants**

Pollutants	рН	TSS mg/L	COD mg/L	Kjedahl Nitrogen (TKN) mg/L	Nitrate & Nitrite- total mg/L	P- total mg/L
Municipal Action Level	<u>7.70</u> <del>6.0-</del> <del>9.0</del>	<u>264.1</u> <del>26.3</del>	<u>247.5</u> <del>32</del>	<u>4.59</u> <del>0.80</del>	<u>1.85</u> <del>0.34</del>	<u>0.80</u> <del>0.14</del>

### Metals

Pollutants	Cd- total µg/L	Cr-total μg/L	Cu- total µg/L	Pb- total μg/L	Ni- total μg/L	Zn- total μg/L	Hg- total µg/L
Municipal							
Action	2.52	20.20	<u>71.12</u>	102.00	27.43	<u>641.3</u>	0.32
Level	0.44	<del>3.7</del>	7	5	<del>4.8</del>	<del>40</del>	0.1

This Order establishes Municipal Action Levels (MALs) to identify subwatersheds requiring additional Best Management Practices (BMPs) to reduce pollutant loads and prioritize implementation of additional BMPs. MALs for selected pollutants are based on nationwide Phase monitoring MS4 data for pollutants storm water L in (http://unix.eng.ua.edu/~rpitt/Research/ms4/mainms4.shtmlhttp://unix.eng.ua.edu/~rpitt/Resear ch/Research.shtml, last visited on May 9, 2012). The MALs were obtained by computing the upper 25th percentile for selected pollutants for Rain Zone 6.

Under this Order, the Municipal Action Levels (MALs) shall be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the MALs. Within those subwatersheds where pollutant levels in the discharge are in excess of the MALs, Permittees shall implement controls and measures necessary to reduce the discharge of pollutants.

In order to determine if MS4 discharges are in excess of the MALs, Permittees shall conduct outfall monitoring as required in the Monitoring and Reporting Program (MRP) (Attachment E). A MAL Assessment Report shall be submitted to the Regional Water Board Executive Officer as part of the Annual Report. The MAL Assessment Report shall present the monitoring data in comparison to the applicable MALs, and identify those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs listed in this attachment in discharges of storm water from the MS4.

Beginning in Year 3 after the effective date of this Order, each Permittee shall submit a MAL Action Plan with the Annual Report (first MAL Action Plan due with December 15, 2013 Annual Report) to the Regional Water Board Executive Officer, for those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in any discharge of Attachment G – Non-Storm Water Action Levels G-17



Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

storm water from the MS4. The plan shall include an assessment of the sources responsible for the MAL exceedances, the existing storm water programs and BMPs that address those sources, an assessment of potential program enhancements, alternative BMPs and actions the Permittee shall implement to reduce discharges to a level that is equivalent to or below the MALs, and an implementation schedule for such actions for Executive Officer approval. The MAL Action Plan shall provide the technical rationale to demonstrate the proposed measures and controls will attain the MALs. If the MAL Action Plan is not approved within 90 days of the due date, the Executive Officer may establish an appropriate plan with at least 90 day notification and consultation to the Permittees.

Within 90 days of the plan approval by the Regional Water Board Executive Officer, the Permittee shall initiate the BMPs and actions proposed in the MAL Action Plan, together with any other practicable BMPs or actions that the Executive Officer determines to be necessary to meet the MALs. The Permittee shall complete the proposed actions in accordance with the approved implementation schedule.

Upon completion of the actions specified in the approved MAL Action Plan, the Permittee shall re-monitor the subject subwatershed in accordance with the MRP, and submit a Post-Project MAL Assessment Report to the Regional Water Board Executive Officer.

As additional data become available through the MRP or from the Regional Subset of the National Dataset, MALs may be revised annually by the Regional Water Board Executive Officer in accordance with an equivalent statistical method as that used to establish the MALs in this attachment with at least 90 day notification and consultation to the Permittees.

in outfalls at the Boeing Santa Susana Field Laboratory that have potential municipal applications.

To provide clarification to the Regional Water Boards, the State Water Board's Office of Chief Counsel issued a memorandum dated February 11, 1993 regarding the "Definition of 'Maximum Extent Practicable'". In the memorandum, the State Water Board interpreted the MEP standard to entail "a serious attempt to comply," and that under the MEP standard, "practical solutions may not be lightly rejected." The memorandum states, "[i]n selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to *the maximum extent practicable*. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive." The memorandum further states that, "[a]fter selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented."

This Order includes programmatic requirements in six areas pursuant to 40 CFR section 122.26(d)(2)(iv) as well as numeric design standards for storm water runoff from new development and redevelopment consistent with the federal MEP standard (see State Water Board Order WQ 2000-11, the "LA SUSMP Order"). This Order also includes protocols for periodically evaluating and modifying or adding control measures, consistent with the concept that MEP is an evolving and flexible standard.

This Order also provides for the use of municipal action levels ("MALs") derived from the National Stormwater Quality Database (NSQD), as a means of evaluating the overall effectiveness of a Permittee's storm water management program in reducing pollutant loads from a particular drainage area and in order to assess compliance with the MEP standard. Finally, this Order includes BMP Performance Standards derived from the International BMP Database as a guide for BMP selection and design, and as a tool for evaluating the effectiveness of individual post-construction BMPs in reducing pollutant loads and assessing compliance with the MEP standard. USEPA recommends the use of numeric benchmarks for BMPs to estimate BMP effectiveness and as triggers for taking additional actions such as evaluating the effectiveness of individual BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.¹⁵

### C. Water Quality-Based Effluent Limitations (WQBELs)

In addition to requiring that MS4 permits include technology based requirements consistent with the MEP standard, section 402(p)(3)(B)(iii) of the CWA authorizes the inclusion of "such other provisions as the Administrator or the State determines appropriate for the control of [] pollutants."¹⁶ This requirement gives USEPA or the State

¹⁵ See USEPA November 22, 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs."

¹⁶ The first and second iterations of the Los Angeles County MS4 Permit relied solely upon requirements consistent with the MEP standard to work toward achieving water quality standards. Note that the MEP standard is distinct from a water quality based standard; each has a different basis. Therefore, while from a practical point of view, the goal of all MS4 permit conditions is to control pollutants in discharges to ultimately achieve certain water quality outcomes, water quality based

### ATTACHMENT F – FACT SHEET

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### ATTACHMENT F – FACT SHEET

As described in Part II of this Order, this Fact Sheet sets forth the significant sets forth the significant factual, legal, methodological, and policy rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to the Dischargers covered by this Order. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to the Dischargers.

### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility and the Dischargers.

able 1-1.1 active and Discharger information			
VDID Various (See Table 4 of Order)			
Dischargers	The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach (See Table 4 of Order)		
Name of Facility	Municipal Separate Storm Sewer Systems (MS4s) within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District		
Facility Address	Various		
Facility Contact, Title and Phone	Various (See Table 4 of Order)		
Mailing Address         Various (See Table 4 of Order)			
Billing Address	Same as above		
Type of Facility	Large Municipal Separate Storm Sewer System (MS4) ¹		
Major or Minor Facility	Major		

¹ According to 40 CFR § 122.26(b)(8), "[a] municipal separate storm sewer system (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

⁽i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

⁽ii) Designed or used for collecting or conveying storm water;

⁽iii) Which is not a combined sewer; and

⁽iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

Watersheds	<ul> <li>(1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed;</li> <li>(4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Area;(6) San Gabriel River Watershed; and (7) Santa Ana River Watershed</li> </ul>	
Receiving Water	<ul> <li>River Watershed; and (7) Santa Ana River Watershed</li> <li>Surface waters identified in Tables 2-1, 2-1a, 2-3, and 2-4, and Appendix 1, Table 1 of the Water Quality Control Plan - Los</li> <li>Angeles Region (Basin Plan), and other unidentified tributaries to these surface waters within the following Watershed Management Areas: <ol> <li>Santa Clara River Watershed;</li> <li>Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed;</li> <li>Los Angeles River Watershed;</li> <li>Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area;</li> <li>Los Cerritos Channel and Alamitos Bay Watershed Management Area;</li> <li>Santa Gabriel River Watershed; and</li> </ol> </li> </ul>	
Receiving Water Type	Inland surface waters, estuarine waters, and marine waters, including wetlands, lakes, rivers, estuaries, lagoons, harbors, bays, and beaches	

The Los Angeles County Flood Control District, Los Angeles County, and the 84 municipalities listed in Table F-2 above are the owners and/or operators³ of the Los Angeles County Municipal Separate Storm Sewer System (hereinafter Facility).

For the purposes of this Order, the entities listed in Table 4 of the Order are hereinafter referred to separately as "Permittees" and jointly as the "Dischargers." References to "discharger" or "permittee" or "co-permittee" or "municipality" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Dischargers or Permittees herein.

### II. FACILITY DESCRIPTION

### A. Description of the Los Angeles County MS4

The Los Angeles County MS4, like many MS4s in the nation, is based on regional floodwater management systems that use both natural and altered water bodies to achieve flood management goals. The Los Angeles County MS4 is a large

² Note that the Santa Ana River Watershed lies primarily within the boundaries of the Santa Ana Regional Water Quality Control Board. However, a portion of the Chino Basin subwatershed lies within the jurisdictions of Pomona and Claremont in Los Angeles County. The primary receiving water within the Los Angeles County portion of the Chino Basin subwatershed is San Antonio Creek.

³ Owner or operator means the owner or operator of any facility or activity subject to regulation under the NPDES program (40 CFR § 122.2).

interconnected system, controlled in large part by the Los Angeles County Flood Control District (LACFCD), among others, and used by multiple cities along with Los Angeles County. This extensive system conveys storm water and non-storm water across municipal boundaries where it is commingled within the MS4 and then discharged to a receiving water body.

The Los Angeles County Flood Control Act was passed in 1915. The original Los Angeles MS4 was developed in the 1930s by the U.S. Army Corps of Engineers (ACOE). As Los Angeles began to grow rapidly in the 1920s and 1930s, storm water that was once absorbed by acres of undeveloped land began to run off the newly paved and developed areas, leading to an increased amount of water flowing into the region's rivers and local creeks. These waterways could not contain the increased amount of water and the region experienced extensive flooding. In response, the ACOE lined the Los Angeles River and Ballona Creek with concrete and initiated the development of an underground urban drainage system. As Los Angeles County MS4 developed.

The Los Angeles County Flood Control District boundaries encompass more than 3,000 square miles, 85 incorporated cities, unincorporated areas, and approximately 2.1 million land parcels. The Los Angeles County Flood Control District owns drainage infrastructure, including owning or maintaining easements for drainage facilities and access, within incorporated and unincorporated areas in every watershed in the Los Angeles Region, including 500 miles of open channels, 2,900 miles of underground storm drains, over 80,000 catch basins, and 52 pump stations.

The total length of the greater LA County MS4, and the locations of all storm drain connections, are not known exactly, as a comprehensive map for the MS4 does not exist. Rough estimates, based on information from the LACFCD and large municipalities (population > 100,000), indicate that the length exceeds 4,300 miles, as shown below.

Permittee	Area	Catch Basins	Storm Drain	Open Channel Length
	(Square Miles)		Length	
LA County	3,100	73,000	2,650 miles	450 miles
City of LA	469	30,000	1,600 miles	31 miles
El Monte	10	316	11 miles	0.4 mile
Glendale	30.6	1,100	Unknown	Unknown
Inglewood	9	1,157	12 miles	Unknown
Pasadena	26	1,050	30	Unknown
Santa Monica	8.3	850	Unknown	Unknown

### Table F-2. Extent of LA County MS4

Permittee	Area	Catch Basins	Storm Drain	Open Channel Length
	(Square Miles)		Length	
Torrance	20	2,000	20 miles	3 miles
TOTAL		109,473	4,323	484.4

The Los Angeles County Flood Control District also owns the County of Los Angeles Department of Public Works headquarters building and Los Angeles County Flood Control District maintenance yards to support its field operations.

Storm water and non-storm water are conveyed through the MS4 and ultimately discharged into receiving waters of the Los Angeles Region. The Los Angeles County Flood Control District's infrastructure receives storm water and non-storm water flows from various sources. These flows come from MS4s owned by other Permittees covered by this Order and other public agencies that connect to the Los Angeles County Flood Control District's infrastructure, NPDES permitted discharges, discharges authorized by the USEPA (including discharges subject to a decision document approved pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)), groundwater, and natural flows.

The Los Angeles County Flood Control District owns its headquarters building located at 900 South Fremont Avenue in the City of Alhambra, California. The facility includes a fueling station and a wash rack that discharges to the sanitary sewer. The wash rack is used to wash Department of Public Works vehicles. The Los Angeles County Flood Control District also operates 12 flood maintenance yards. Materials and equipment associated with maintaining the flood control facilities are stored at the yards.

The requirements contained in this Order apply to the Los Angeles County Flood Control District, 84 cities within the Los Angeles County Flood Control District, and the unincorporated areas of Los Angeles County under County jurisdiction, with the exception of the City of Long Beach. Under the previous Order, Order No. 01-182, the Los Angeles County Flood Control District was designated the Principal Permittee, and the County of Los Angeles and the 84 incorporated cities were designated co-Permittees. However, in this Order, the role of Principal Permittee has been eliminated. This Order divides Los Angeles County into seven Watershed Management Areas (WMAs).

### B. The Need to Regulate Discharges from MS4s

The quality of storm water and non-storm water discharges from MS4s is fundamentally important to the health of the environment and the quality of life in Southern California. Polluted storm water and non-storm water discharges from MS4s are a leading cause of water quality impairment in the Los Angeles Region. Storm water and non-storm water discharges are often contaminated with pesticides, fertilizers, fecal indicator bacteria and associated pathogens, trash, automotive byproducts, and many other toxic substances generated by activities in the urban environment. Water that flows over streets, parking lots, construction sites, and industrial, commercial, residential, and

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municipal areas carries these untreated pollutants through the MS4 directly into the receiving waters of the Region. The water quality impacts, ecosystem impacts, and increased public health risks from MS4 discharges that affect receiving waters nationwide and throughout Los Angeles County, including its coastline, are well documented.

The National Urban Runoff Program (NURP) Study (USEPA 1983) showed that MS4 discharges draining from residential, commercial, and light industrial areas contain significant loadings of total suspended solids and other pollutants. Many studies continue to support the conclusions of the NURP Study. The NURP Study also found that pollutant levels from illicit discharges were high enough to significantly degrade receiving water quality, and threaten aquatic life, wildlife, and human health. The general findings and conclusions of the NURP Study are reiterated in the more recent 2008 National Research Council report "Urban Runoff Management in the United States" as well as in a regional study, "Sources, Patterns and Mechanisms of storm Water Pollutant Loading from Watersheds and Land Uses of the Greater Los Angeles Area, California," SCCWRP Technical Report 510 (2007), funded in large part by the Regional Water Board.

Some of the conclusions of the 2007 regional study were as follows.

Storm water runoff from watershed and land use based sources is a significant contributor of pollutant loading and often exceeds water quality standards. High pollutant concentrations were observed throughout the study at both mass emission (ME) and land use (LU) sites. Pollutant concentrations frequently exceeded water quality standards.

Storm water Event Mean Concentrations (EMCs), fluxes and loads were substantially lower from undeveloped open space areas when compared to developed urbanized watersheds. Storms sampled from less developed watersheds produced pollutant EMCs and fluxes that were one to two orders of magnitude lower than comparably sized storms in urbanized watersheds. Furthermore, the higher fluxes from developed watersheds were generated by substantially less rainfall than the lower fluxes from the undeveloped watersheds, presumably due to increased impervious surface area in developed watersheds.

The Los Angeles region contributed a similar range of storm water runoff pollutant loads as that of other regions of the United States. Comparison of constituent concentrations in storm water runoff from land use sites from this study reveal median EMCs that are comparable to U.S. averages reported in the National Storm water Quality Database (NSQD; Pitt et al., 2003). Comparison to the NSQD data set provides insight to spatial and temporal patterns in constituent concentrations in urban systems. Similarities between levels reported in the NSQD and this study suggest that land-based concentrations in southern California storm water are generally comparable to those in other parts of the country.

Peak concentrations for all constituents were observed during the early part of the storm. Constituent concentrations varied with time over the course of storm events. For

all storms sampled, the highest constituent concentrations occurred during the early phases of storm water runoff with peak concentrations usually preceding peak flow. Although the pattern of an early peak in concentration was comparable in both large and small developed watersheds, the peak concentration tended to occur later in the storm and persist for a longer duration in the smaller developed watersheds. Therefore monitoring programs must capture the early portion of storms and account for intrastorm variability in concentration in order to generate accurate estimates of EMC and contaminant loading. Programs that do not initiate sampling until a flow threshold has been surpassed may severely underestimate storm EMCs.

Highest constituent loading was observed early in the storm season with intra-annual variability driven more by antecedent dry period than amount of rainfall. Seasonal differences in constituent EMCs and loads were consistently observed at both ME and LU sites. In general, early season storms (October – December) produce significantly higher constituent EMCs and loads than late season storms (April-May), even when rainfall quantity was similar. This suggests that the magnitude of constituent load associated with storm water runoff depends, at least in part, on the amount of time available for pollutant build-up on land surfaces. The extended dry period that typically occurs in arid climates such as southern California maximizes the time for constituents to build-up on land surfaces, resulting in proportionally higher concentrations and loads during initial storms of the season.

The 1992, 1994, and 1996 National Water Quality Inventory Reports to Congress prepared by USEPA showed a trend of impairment in the Nation's waters from contaminated storm water and dry weather urban runoff. The 2004 National Water Quality Inventory (305(b) Report) showed that urban runoff/storm water discharges contribute to the impairment of 22,559 miles of streams, the impairment of 701,024 acres of lakes, and the impairment of 867 square miles of estuaries in the United States. The Natural Resources Defense Council (NRDC) 1999 Report, "Stormwater Strategies, Community Responses to Runoff Pollution" identifies two main causes of the storm water pollution problem in urban areas. Both causes are directly related to development in urban and urbanizing areas:

*Increased volume and velocity of surface runoff.* There are three types of human-made impervious covers that increase the volume and velocity of runoff: (i) rooftop, (ii) transportation imperviousness, and (iii) non-porous (impervious) surfaces. As these impervious surfaces increase, infiltration will decrease, forcing more water to run off the surface, picking up speed and pollutants.

*The concentration of pollutants in the runoff.* Certain activities, such as those from industrial sites, are large contributors of pollutant concentrations to the MS4.

The report also identified several activities causing storm water pollution from urban areas, including practices of homeowners, businesses, and government agencies.

Studies conducted by the United States Geological Survey (USGS) confirm the link between urbanization and water quality impairments in urban watersheds due to contaminated storm water runoff.

Furthermore, the water quality impacts of urbanization and urban storm water discharges have been summarized by several other recent USEPA reports. Urbanization causes changes in hydrology and increases pollutant loads which adversely impact water quality and impair the beneficial uses of receiving waters. Increases in population density and imperviousness result in changes to stream hydrology including:

- increased peak discharges compared to predevelopment levels;
- increased volume of storm water runoff with each storm compared to predevelopment levels;
- decreased travel time to reach receiving water;
- increased frequency and severity of floods;
- reduced stream flow during prolonged periods of dry weather due to reduced levels of infiltration;

• increased runoff velocity during storms due to a combination of effects of higher discharge peaks, rapid time of concentration, and smoother hydraulic surfaces from channelization; and

• decreased infiltration and diminished groundwater recharge.

The Los Angeles County MS4 program has conducted monitoring to:

- quantify mass emissions for pollutants;
- identify critical sources for pollutants of concern in storm water;
- evaluate BMP effectiveness; and
- evaluate receiving water impacts, including impacts to tributaries.

The monitoring indicates that instream concentrations of pathogen indicators (fecal coliform and streptococcus), heavy metals (such as Pb, Cu, Zn) and pesticides (such as diazinon) exceed water quality standards. The mass emissions of pollutants to the ocean are significant from the urban WMAs such as the Los Angeles River WMA, Ballona Creek WMA, and Coyote Creek WMA, with the Los Angeles River WMA providing more than seventy percent of the loadings. Critical source data for facilities (such as auto-salvage yards, primary metal facilities, and automotive repair shops) show that total and dissolved heavy metals (Pb, Cu, Zn, and Cd), and total suspended solids (TSS) exceeded water quality standards by as much as two orders of magnitude. The results are consistent with a limited term study conducted by the Regional Water Board to characterize storm water runoff in the Los Angeles region in 1988 before the issuance of first MS4 permit. Storm water runoff data from predominant land uses in Los Angeles County showed similar patterns. Light industrial, commercial and transportation land uses showed the highest range of exceedances. A pesticide (diazinon) was detected in higher concentrations from residential land use. The data for polycyclic aromatic hydrocarbons (PAHs), a known pollutant of concern in urban storm water runoff, is inconclusive but improved analytical methods may yield more definitive results in the future. Receiving water impacts studies found that storm water discharges from urban watersheds exhibit toxicity attributable to heavy metals. Bioassessments of the benthic communities showed bioaccumulation of toxicants. Sediment analysis showed higher concentrations of pollutants, such as Pb and PAHs, in urban watersheds than in rural watersheds (2 to 4 times higher). In addition, toxicity of dry weather flows was observed with the cause of toxicity undetermined. Other studies have documented concentrations of pollutants that exceed water quality standards in storm drains flowing to the ocean during dry weather, and adverse health impacts from swimming near flowing storm drains.

Trash is also a serious and pervasive water quality problem in Los Angeles County. The Regional Water Board has determined that current levels of trash exceed the existing water quality objectives contained in the Basin Plan that are necessary to protect the beneficial uses of many surface waters. Regional Water Board staff regularly observes trash in surface waters throughout the Los Angeles region. Non-profit organizations such as Heal the Bay, Friends of the Los Angeles River (FoLAR) and others organize volunteer clean-ups periodically, and document the amount of trash collected. Trash in waterways causes significant water quality problems. Small and large floatables inhibit the growth of aquatic vegetation, decreasing habitat and spawning areas for fish and other living organisms. Wildlife living in rivers and in riparian areas can be harmed by ingesting or becoming entangled in floating trash. Except for large items, settleables are not always obvious to the eye. They include glass, cigarette butts, rubber, and construction debris, among other things. Settleables can be a problem for bottom feeders and can contribute to sediment contamination. Some debris (e.g. diapers, medical and household waste, and chemicals) are a source of bacteria and toxic substances. Floating debris that is not trapped and removed will eventually end up on the beaches or in the open ocean, keeping visitors away from our beaches and degrading coastal waters.

### C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

The Los Angeles County MS4 Permit was last reissued in 2001 as Order No.01-182. Order No. 01-182 expired in 2006, but has been administratively extended pursuant to federal regulations. Order No. 01-182 was reopened by the Regional Water Board in 2006, 2007 and 2009 to incorporate provisions to implement three TMDLs. It was further amended in 2010 and 2011 pursuant to a peremptory writ of mandate issued by the Los Angeles County Superior Court.

Order No. 01-182 is organized under the following seven parts and includes several attachments. The description below summarizes key permit parts and attachments in Order No. 01-182:

### Part 1 – Discharge Prohibitions

As required by section 402(p)(3)(B)(ii) of the Clean Water Act, Part 1 requires permittees to "effectively prohibit non-storm water discharges into the MS4 and watercourses, except where such discharges" are covered by a separate NPDES permit or fall within one of thirteen categories of flows that are conditionally exempted from the discharge prohibition. These exempted flows fall under the general categories of natural flows, fire fighting flows, and flows incidental to urban activities (i.e. landscape irrigation, sidewalk rinsing). These non-storm water flows may be exempted so long as: (i) they are not a source of pollutants, (ii) their effective prohibition is not necessary to comply with TMDL provisions, and (iii) they do not violate antidegradation policies. Part 1 also authorizes the Regional Water Board Executive Officer to impose conditions on these types of discharges and to add or remove categories of conditionally exempted non-

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storm water discharges based on their potential to contribute pollutants to receiving waters.

### Part 2 - Receiving Water Limitations

Part 2 prohibits discharges from the MS4 that cause or contribute to the violation of water quality standards. In addition, discharges from the MS4 of storm water or nonstorm water, for which a Permittee is responsible, may not cause or contribute to a condition of nuisance. Part 2.3 states that permittees shall comply with these prohibitions "through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with [the Los Angeles Stormwater Quality Management Program (SQMP)] and its components and other requirements of [the LA County MS4 Permit]." Part 2.3 establishes an "iterative process" whereby certain actions are required when exceedances of water quality standards or objectives occur. This iterative process includes submitting a Receiving Water Limitations Compliance Report; revising the SQMP and its components to include modified BMPs, an implementation schedule and additional monitoring to address the exceedances; and implementing the revised SQMP. These provisions are consistent with the receiving water limitations language required by State Water Board Order WQ 99-05.

Part 2 also includes provisions implementing the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (summer dry weather provisions only). During summer dry weather, Part 2.6 prohibits discharges of bacteria from MS4s into Marina del Rey Harbor Basins D, E, or F, including Mothers' Beach that cause or contribute to exceedance of the applicable bacteria water quality objectives.

Part 2 also included similar TMDL provisions relating to the Santa Monica Bay summer dry weather bacteria TMDL. However, as a result of a legal challenge by Los Angeles County and the LACFCD, the Regional Water Board was required to void and set aside those provisions, which the Regional Water Board did in 2011.

### Part 3 – Stormwater Quality Management Program (SQMP) Implementation

Under Part 3, each Permittee shall, at a minimum, implement the SQMP, which is an enforceable element of the Los Angeles County MS4 Permit. The SQMP, at a minimum, shall also comply with the applicable storm water program requirements of 40 CFR section 122.26(d)(2). The SQMP and its components shall be implemented so as to reduce the discharges of pollutants in storm water to the maximum extent practicable (MEP) and effectively prohibit non-storm water discharges to the MS4. Each Permittee shall also implement additional controls, where necessary, to reduce the discharge of pollutants from the MS4.

Part 3 also sets forth specific responsibilities of the Principal Permittee, which under Order No. 01-182 is the LACFCD, and co-permittees. In addition, Part 3 sets forth requirements for Watershed Management Committees (WMCs) which, among other tasks, prioritize pollution control efforts and evaluate the effectiveness of and recommend changes to the SQMP and its components. Each Permittee must also have the necessary legal authority to prohibit non-storm water discharges to the MS4, as well as possess adequate legal authority to develop and enforce storm water and non-storm

water ordinances for its jurisdiction.

### Part 4 – Special Provisions

Part 4 sets forth provisions for public information and participation, industrial/commercial facilities control program, development planning, development construction, public agency activities, and illicit connections and illicit discharges elimination. These programs are termed "minimum control measures" and have been in place since the inception of the MS4 NPDES permitting program, as required by federal regulations.

### Part 5 – Definitions

Part 5 includes definitions for terms used within Order No. 01-182.

### Part 6 – Standard Provisions

Part 6 includes standard provisions relating to implementation of the programs required by the permit. Such provisions include, but are not limited to, the duty to comply, the duty to mitigate, inspection and entry requirements, proper operation and maintenance requirements, monitoring and reporting requirements, and the duty to provide information. Most of these provisions are required by 40 CFR sections 122.41 or 122.42 and apply to all NPDES permits.

### Part 7 – TMDL Provisions

In 2009, Order No. 01-182 was amended to include provisions that are consistent with the assumptions and requirements of waste load allocations from the Los Angeles River Trash TMDL. Appendix 7-1 identifies the permittees subject to the Los Angeles River Trash TMDL and sets forth the interim and final numeric effluent limitations for trash that the permittees must comply with. Part 7 also sets forth how permittees can demonstrate compliance with the numeric effluent limitations. Permittees have the option to employ three general compliance strategies to achieve the numeric effluent limitations. Depending on the strategy selected, the Permittee may demonstrate compliance either by documenting the percentage of its area addressed by full capture systems ("action-based" demonstration) or by calculating its annual trash discharge to the MS4 and comparing that to its effluent limitation. This approach allows the Permittee the flexibility to comply with the numeric effluent limitations using any lawful means, and establishes appropriate and enforceable compliance metrics depending on the method of compliance and level of assurance provided by the Permittee that the selected method will achieve the numeric effluent limitations derived from the TMDL WLAs.

### Attachment U – Monitoring and Reporting Program

Order No. 01-182 has both self-monitoring and public reporting requirements, which include: (1) monitoring of "mass emissions" at seven mass emission monitoring stations; (2) Water Column Toxicity Monitoring; (3) Tributary Monitoring; (4) Shoreline Monitoring; (5) Trash Monitoring; (6) Estuary Sampling; (7) Bioassessment; and (8) Special Studies. The purpose of mass emissions monitoring is to: (1) estimate the mass emissions from the MS4; (2) assess trends in the mass emissions over time; and (3) determine if the MS4 is contributing to exceedances of water quality standards by comparing results to the applicable standards in the Basin Plan. Order No. 01-182 established that the Principal Permittee shall monitor the mass emissions stations. The permit required mass emission sampling five times per year.

### **III. APPLICABLE STATUTES, REGULATIONS, PLANS, AND POLICIES**

The provisions contained in this Order are based on the requirements and authorities described below.

### A. Legal Authorities – Federal Clean Water Act and California Water Code

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It serves as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260).

### **B.** Federal and California Endangered Species Acts

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the United States. Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.

### C. California Environmental Quality Act (CEQA)

This action to adopt an NPDES Permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, § 21100, et seq.) pursuant to California Water Code section 13389. (County of Los Angeles v. Cal. Water Boards (2006) 143 Cal.App.4th 985.)

### D. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The CWA requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. On June 13, 1994, the Regional Water Board adopted a *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (hereinafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. The Regional Water Board has amended the Basin Plan on multiple occasions since 1994. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be

considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the surface water bodies that receive discharges from the Los Angeles County MS4 generally include those listed below:

Discharge Point	Receiving Water Name	Beneficial Use(s)
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Multiple surface water bodies of the Los Angeles Region	Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PROC); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC-1); Limited Contact Recreation (LREC-1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Preservation of Areas of Special Biological Significance (BIOL); Wildlife Habitat (WILD); Preservation of Rare and Endangered Species (RARE); Marine Habitat (MAR); Wetland Habitat (WET); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)

### Table F-3. Basin Plan Beneficial Uses

Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Basin Plan.

### a. Permit Structure: Watershed Management Approach and Total Maximum Daily Load (TMDL) Implementation

One of the fundamental issues for this Order was a reconsideration of the basic permit structure. The previous Order, Order No. 01-182, was structured as a single permit whereby all 86 Permittees were assigned uniform requirements, with additional requirements for the Principal Permittee. Through Order No. 01-182, the Regional Water Board began to implement a Watershed Management Approach to address water quality protection in the region. The Watershed Management Approach intended to provide a comprehensive and integrated strategy toward water resource protection, enhancement, and restoration while considering economic and environmental impacts within a hydrologically defined drainage basin or watershed.

On June 12, 2006, prior to the expiration date of Order No. 01-182, all of the Permittees filed Reports of Waste Discharge (ROWD) applying for renewal of their waste discharge requirements. Specifically, the Los Angeles County Flood Control District submitted an ROWD application on behalf of itself, the County of Los Angeles, and 78 other Permittees. Several Permittees under Order No. 01-182 elected to not be included as part of the Los Angeles County Flood Control District's ROWD. On June 12, 2006, the cities of Downey and Signal Hill each submitted an individual ROWD application requesting an individual MS4 permit;

and the Upper San Gabriel River Watershed Coalition (comprised of the cities of Azusa, Claremont, Glendora, Irwindale, and Whittier) also submitted an individual ROWD application requesting a separate MS4 permit for these cities. In 2010, the LACFCD withdrew from its 2006 ROWD and submitted a new ROWD also requesting an individual MS4 permit. The LACFCD also requested that if an individual MS4 permit was not issued to it, that it no longer be designated as the Principal Permittee and that it is relieved of Principal Permittee responsibilities.

The Regional Water Board evaluated each of the 2006 ROWDs and notified all of the Permittees that their ROWDs did not satisfy federal storm water regulations contained in the USEPA Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems; Final Rule, August 9, 1996 (61 *Fed Reg.* 41697). The Regional Water Board also found that the information presented in the ROWDs did not reflect the current status of program elements for MS4 permits developed over the past decade or the new information specific to this MS4. Because each ROWD did not satisfy federal requirements, the Regional Water Board also evaluated the LACFCD's 2010 ROWD and found that it too did not satisfy federal requirements nor reflect the current status for MS4s.

Though five separate ROWDs were submitted, the Regional Water Board retains the discretion as the permitting authority to determine whether to issue permits for discharges from MS4s on a system-wide or jurisdiction-wide basis. Clean Water Act section 402(p)(3)(B)(i) and implementing regulations at 40 CFR section 122.26, subdivisions (a)(1)(v) and (a)(3)(ii), allow the permitting authority to issue permits for MS4 discharges on a system-wide or jurisdiction-wide basis taking into consideration a variety of factors. Such factors include the location of the discharge with respect to waters of the United States, the size of the discharge, the quantity and nature of the pollutants discharged to waters of the United States, and other relevant factors. Federal regulations at 40 CFR section 122.26(a)(3)(ii) identify a variety of possible permitting structures, including one system-wide permit covering all MS4 discharges or distinct permits for appropriate categories of MS4 discharges including, but not limited to, all discharges owned or operated by the same municipality, located within the same jurisdiction, all discharges within a system that discharge to the same watershed, discharges within a MS4 that are similar in nature, or for individual discharges from MS4s.

In evaluating the five separate ROWDs and the structure for this Order, the Regional Water Board considered a number of factors:

i. The nature of the Los Angeles County MS4, which is a large interconnected system, controlled in large part by the Los Angeles County Flood Control District, among others, and used by multiple cities along with Los Angeles County. The discharges from these entities frequently commingle in the MS4 prior to discharge to receiving waters.

- **ii.** The requirement to implement 33 largely watershed-based TMDLs in this Order. A number of Permittees have already established jurisdictional groups on a watershed or subwatershed basis for TMDL implementation. (See Attachment K of this Order for a matrix of these TMDLs and Permittees by Watershed Management Area (WMA)). Many of the TMDLs apply to multiple watersheds and the jurisdictional areas of multiple Permittees. Having separate permits would make implementation of the TMDLs more cumbersome.
- iii. The passage of Assembly Bill 2554 in 2010, which amended the Los Angeles County Flood Control Act. This statute allows the LACFCD to assess a parcel tax for storm water and clean water programs. Funding is subject to voter approval in accordance with Proposition 218. Fifty percent of funding is allocated to nine "watershed authority groups" to implement collaborative water quality improvement plans. (See Attachments B and C of this Order for maps of WMAs.)
- iv. Results of the on-line survey administered to Permittees by Regional Water Board staff regarding permit structure. The results indicated that a majority of Permittees support a single MS4 permit for Los Angeles County. A significant minority support multiple watershed-based permits. Overall, 85 percent of the permittees that responded to the on-line survey support either a single MS4 permit or several individual watershed-based permits. A small number of permittees support alternative groupings of adjacent municipalities instead of watershed-based groupings. Only four permittees expressed a preference for individual MS4 permits.
- v. The 2006 and 2010 ROWDs. Eight Permittees submitted individual or small group ROWDs, including the cities of Signal Hill and Downey; five cities in the upper San Gabriel River watershed; and the Los Angeles County Flood Control District. The LACFCD has also requested that if the Regional Water Board does not issue an individual permit to the LACFCD, that it is no longer designated as Principal Permittee and relieved of Principal Permittee responsibilities.

Based on an evaluation of these factors, the Regional Water Board again determined that, because of the complexity and networking of the MS4 within Los Angeles County, that one system-wide permit is appropriate. In order to provide individual Permittees with more specific requirements, this Order regulates the MS4 discharges of 86 Permittees with some sections devoted to universal requirements for all Permittees and others devoted to requirements specific to each Watershed Management Area (WMA), including TMDL implementation provisions. This structure is supported by section 402(p) of the Clean Water Act and 40 CFR sections 122.26, subdivisions (a)(1)(v) and (a)(3)(ii). A single permit will ensure consistency and equitability in regulatory requirements within Los Angeles County, while watershed-based sections within the single permit will provide flexibility to tailor permit provisions to address distinct watershed based structure comports with the Regional Water Board's Watershed

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Management Initiative, its watershed-based TMDL requirements, and the LACFCD's funding initiative passed in Assembly Bill 2554. Watershed-based sections will help promote watershed-wide solutions to address water quality problems, which in many cases are the most efficient and cost-effective means to address storm water and urban runoff pollution. Further, watershed-based sections may encourage collaboration among permittees to implement regional integrated water resources approaches such as storm water capture and re-use to achieve multiple benefits.

The Regional Water Board determined that the cities of Signal Hill and Downey, the five upper San Gabriel River cities, and the LACFCD are included as Permittees in this Order. Individually tailored permittee requirements are provided in this Order, where appropriate. The Regional Water Board also determined that as the primary owner and operator of the Los Angeles County MS4, the LACFCD should remain a Permittee in the single-system wide permit; however, this Order relieves LACFCD of its role and responsibilities as Principal Permittee. This Order also specifies certain requirements specific to the LACFCD in its role as the owner and operator of the Los Angeles County MS4.

2. Ocean Plan. In 1972, the State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan). The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table F-4. Ocean Plan Beneficial Use	S
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Discharge Point	Receiving Water Name	Beneficial Use(s)
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach	Pacific Ocean	Industrial Water Supply (IND); Water Contact (REC- 1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)

**3.** Antidegradation Policy. 40 CFR section 131.12⁴ requires that the state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Resolution No. 68-16 and 40 CFR section 131.12 require the Regional Water Board to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Water Board's policies. Resolution 68-16 requires that discharges of waste be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained.

The discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR section 131.12 and Resolution 68-16. Many of the water bodies within the area covered by this Order are of high quality. The Order requires the Permittees to meet best practicable treatment or control to meet water quality standards. As required by 40 CFR section 122.44(a), the Permittees must comply with the "maximum extent practicable" technology-based standard set forth in CWA

⁴ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

section 402(p). Many of the waters within the area covered by this Order are impaired and listed on the State's CWA Section 303(d) List and either the Regional Water Board or USEPA has established TMDLs to address the impairments. This Order requires the Permittees to comply with permit provisions to implement the WLAs set forth in the TMDLs in order to restore the beneficial uses of the impaired water bodies consistent with the assumptions and requirements of the TMDLs. This Order includes requirements to develop and implement storm water management programs, achieve water quality-based effluent limitations, and effectively prohibit non-storm water discharges through the MS4.

The issuance of this Order does not authorize an increase in the amount of discharge of waste. The Order is more stringent than the previous Order because it includes requirements to implement WLAs assigned to Los Angeles County MS4 discharges that have been established in 33 TMDLs, most of which were not included in the previous Order.

4. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations or other conditions in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations or conditions may be relaxed. All effluent limitations and other conditions (e.g. storm water management program minimum control measures, monitoring) in this Order are at least as stringent as the effluent limitations and conditions in the previous permit.

## E. Impaired Water Bodies on CWA section 303(d) List

Section 303(d)(1) of the CWA requires each state to identify specific water bodies within its boundaries where water quality standards are not being met or are not expected to be met after implementation of technology-based effluent limitations on point sources. Water bodies that do not meet water quality standards are considered impaired and are placed on the state's "303(d) List". Periodically, USEPA approves the State's 303(d) List. Most recently, USEPA approved the State's 2010 303(d) List of impaired water bodies on October 11, 2011, which includes certain receiving waters in the Los Angeles region. For each listed water body, the state or USEPA is required to establish a total maximum daily load (TMDL) of each pollutant impairing the water quality standards in that water body. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The TMDL establishes the allowable pollutant loadings for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a water body to meet water quality standards. A TMDL is the sum of the allowable pollutant loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety. (40 CFR section 130.2(i).) MS4 discharges are considered point source discharges. For 303(d)-listed water bodies and pollutants in the Los Angeles Region, the Regional Water Board or USEPA develops and adopts TMDLs that specify these requirements.

Over the last decade, the Regional Water Board and USEPA have established 33 TMDLs to remedy water quality impairments in various water bodies within Los Angeles County. (See Attachment K of this Order for a list of TMDLs by Watershed Management Area for Los Angeles County.) These TMDLs identify MS4 discharges as a source of pollutants to these water bodies and, as required, establish WLAs for MS4 discharges to reduce the amount of pollutants discharged to receiving waters. Federal regulations require that NPDES permits contain effluent limits consistent with the assumptions and requirements of all available WLAs (40 CFR § 122.44(d)(1)(vii)(B)). Therefore, this Order includes effluent limitations and other provisions to implement the TMDL WLAs assigned to permittees regulated by the LA County MS4 Permit.

The Regional Water Board has previously established numeric effluent limitations to implement TMDL WLAs when it reopened Order No. 01-182 in 2009 to incorporate permit provisions to implement the Los Angeles River Watershed Trash TMDL WLAs. In that case, Permittees have the option to employ three general compliance strategies to achieve the numeric effluent limitations. Depending on the strategy selected, the Permittee may demonstrate compliance either by documenting the percentage of its area addressed by full capture systems ("action-based" demonstration) or by calculating its annual trash discharge to the MS4 and comparing that to its effluent limitation. This approach allows the Permittee the flexibility to comply with the numeric effluent limitations using any lawful means, and establishes appropriate and enforceable compliance metrics depending on the method of compliance and level of assurance provided by the Permittee that the selected method will achieve the numeric effluent limitations derived from the TMDL WLAs. A similar approach is used for the 32 other TMDLs incorporated into this Order, where appropriate.

## F. Other Plans, Policies and Regulations

This Order implements all other applicable federal regulations and State plans, policies and regulations, including the California Toxics Rule at 40 CFR section 131.38.

## IV. RATIONALE FOR DISCHARGE SPECIFICATIONS

## A. Discharge Prohibitions – Non-Storm Water Discharges

## 1. Regulatory Background

The CWA employs the strategy of prohibiting the discharge of any pollutant from a point source into waters of the United States unless the discharger of the pollutant(s) obtains an NPDES permit pursuant to CWA section 402. The 1987 amendment to the CWA included section 402(p) that specifically addresses NPDES permitting requirements for municipal discharges from MS4s. Section 402(p) prohibits the discharge of pollutants from specified MS4s to waters of the United States except as authorized by an NPDES permit and identifies the substantive standards for MS4 permits. MS4 permits (1) "shall include a requirement to effectively prohibit non-stormwater discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering

methods, and [ii] such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." (CWA § 402(p)(3)(B)(ii-iii).)

On November 16, 1990, USEPA published regulations to implement the 1987 amendments to the CWA. (55 Fed. Reg. 47990 et seq. (Nov. 16, 1990)). The regulations establish minimum requirements for MS4 permits. The regulations address both storm water and non-storm water discharges from MS4s; however, the minimum requirements for each are significantly different. This is evident from USEPA's preamble to the storm water regulations, which states that "Section 402(p)(B)(3) [of the CWA] requires that permits for discharges from municipal separate storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal storm sewer ... Ultimately, such non-storm water discharges through a municipal separate storm sewer system must either be removed from the system or become subject to an NPDES permit" (55 Fed. Reg. 47990, 47995 (Nov. 16, 1990).⁵ USEPA states that MS4 Permittees are to begin to fulfill the "effective prohibition of non-storm water discharges" requirement by: (1) conducting a screening analysis of the MS4 to provide information to develop priorities for a program to detect and remove illicit discharges, (2) implementing a program to detect and remove illicit discharges, or ensure they are covered by a separate NPDES permit, and (3) to control improper disposal into the storm sewer. (40 CFR § 122.26(d)(2)(iv)(B).) These non-storm water discharges therefore are not subject to the MEP standard.

"Illicit discharges" defined in the regulations is the most closely applicable definition of "non-storm water" contained in federal law and the terms are often used interchangeably. In fact, "illicit discharge" is defined by USEPA in its 1990 rulemaking, as "any discharge through a municipal separate storm sewer that is not composed entirely of storm water and that is not covered by an NPDES permit [other than the permit for the discharge from the MS4] (55 *Fed. Reg.* 47990, 47995).

## 2. Definition of Storm Water and Non-Storm Water

Federal regulations define "storm water" as "storm water runoff, snow melt runoff, and surface runoff and drainage." (40 C.F.R. § 122.26(b)(13).) While "surface runoff and drainage" is not defined in federal law, USEPA's preamble to the federal regulations demonstrates that the term is related to precipitation events such as rain and/or snowmelt. (55 *Fed. Reg.* 47990, 47995-96 (Nov. 16, 1990)). For example, USEPA states: "In response to the comments [on the proposed rule] which requested EPA to define the term 'storm water' broadly to include a number of classes of discharges which are not in any way related to precipitation events, EPA believes that this rulemaking is not an appropriate forum for addressing the appropriate regulation under the NPDES program of such non-storm water discharges . . . . Consequently, the final definition of storm water has not been expanded from what was proposed." (*Ibid.*) The storm water regulations themselves identify numerous categories of discharges including landscape irrigation, diverted

⁵ USEPA further states that, "[p]ermits for such [non-storm water] discharges must meet applicable technology-based and water-quality based requirements of Sections 402 and 301 of the CWA" (55 Fed. Reg. 47990, 48037 (Nov. 16, 1990).

stream flows, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, and street wash water as "non-storm water." While these types of discharges may be regulated under storm water permits, they are not considered storm water discharges. (40 CFR § 122.26(d)(2)(iv)(B)). USEPA states that, "in general, municipalities will not be held responsible for prohibiting some specific components of discharges or flows ... through their municipal separate storm sewer system, even though such components may be considered non-storm water discharges..." (emphasis added). However, where certain categories of non-storm water discharges are identified by the Permittee (or the Regional Water Board) as needing to be addressed, they are no longer exempt and become subject to the effective prohibition requirement in CWA section 402(p)(3)(B)(ii). This review of the storm water regulations and USEPA's discussion of the definition of storm water in its preamble to these regulations strongly supports the interpretation that storm water includes only precipitation-related discharges. Therefore, non-precipitation related discharges are not storm water discharges and, therefore, are not subject to the MEP standard in CWA section 402(p)(3)(B)(iii). Rather, non-storm water discharges shall be effectively prohibited pursuant to CWA section 402(p)(3)(B)(ii).

#### 3. Non-Storm Water Regulation

Non-storm water discharges from the MS4 that are not authorized by separate NPDES permits, nor specifically exempted, are subject to requirements under the NPDES program, including discharge prohibitions, technology-based effluent limitations and water quality-based effluent limitations (40 CFR § 122.44). USEPA's preamble to the storm water regulations also supports the interpretation that regulation of non-storm water discharges through an MS4 is not limited to the MEP standard in CWA section 402(p)(3)(B)(iii):

"Today's rule defines the term "illicit discharge" to describe any discharge through a municipal separate storm sewer system that is not composed entirely of storm water and that is not covered by an NPDES permit. Such illicit discharges are not authorized under the Clean Water Act. Section 402(p(3)(B) requires that permits for discharges from municipal separate storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal separate storm sewer...Ultimately, such non-storm water discharges through a municipal separate storm sewer must either be removed from the system or become subject to an NPDES permit." (55 Fed. Reg. 47990, 47995.)

In its 1990 rulemaking, USEPA explained that the illicit discharge detection and elimination program requirement was intended to begin to implement the Clean Water Act's provision requiring permits to "effectively prohibit non-storm water discharges."

#### 4. Authorized and Conditionally Exempt Non-Storm Water Discharges

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The previous permit, Order No. 01-182, contained provisions exempting several categories of non-storm water discharges from the discharge prohibition, including discharges covered by a separate individual or general NPDES permit for non-storm water discharges, natural flows, flows from emergency fire fighting activity, and flows incidental to urban activities. This Order retains these same categories, but with several enhancements. Natural flows specified in this Order include natural springs and rising ground water; flows from riparian habitats and wetlands; diverted stream flows authorized by the State or Regional Water Board; and uncontaminated ground water infiltration. Flows incidental to urban activities specified in this Order include landscape irrigation; dechlorinated/debrominated swimming pool discharges; dewatering of lakes and decorative fountains; non-commercial car washing by residents or by non-profit organizations; and street/sidewalk washwater. This Order separately identifies flows from non-emergency fire fighting activities and discharges from potable water sources as "essential" non-storm water discharges rather than combining them into the same category as the other non-storm water discharges incidental to urban activities. In doing so, the Regional Water Board recognizes that these discharges are essential public service discharge activities and are directly or indirectly required by other state or federal statute and/or regulation. This Order continues to unconditionally exempt emergency fire fighting discharges from the discharge prohibition.

Like Order No. 01-182, this Order contains a provision that the Regional Water Board Executive Officer may add or remove categories of exempt non-storm water discharges. In addition, in the event that any of the categories of non-storm water discharges are determined to be a source of pollutants by the Executive Officer then the discharges will no longer be exempt unless the Permittee implements conditions approved by the Executive Officer to ensure that the discharge is not a source of pollutants. Also the Executive Officer may impose additional prohibitions of nonstorm water discharges in consideration of antidegradation policies and TMDLs.

## 5. BMPs for Non-Storm Water Discharges

In this Order, no changes have been made to the types of non-storm water discharges included in the non-storm water discharge prohibition exemptions, with one exception. However, the non-storm water discharge provisions in this Order have been reworded to clarify the requirements for addressing authorized and conditionally exempt non-storm water discharges that are not prohibited. In particular, language has been added to explicitly identify State and Regional Water Board permits that are applicable to some of the exempted non-storm water discharges. The State and Regional Water Board general permits referenced in this Order and their applicability to the different types of non-storm water discharges that are routinely discharged through the MS4 is contained in Table F-4 below.

# Table F-4. State and Regional Water Board General Permits Referenced in this Permit

Order/NPDES Permit No.	Applicable Types of Discharges
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Order/NPDES Permit No. Applicable Types of Discha	
NPDES Permit No. CAG994003 – Discharges of Nonprocess Wastewater to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	<ul> <li>Ground water seepage</li> <li>Uncontaminated pumped ground water</li> <li>Gravity flow from foundation drains, footing drains, and crawl space pumps</li> <li>Air conditioning condensate</li> <li>Discharges of cleaning wastewater and filter backwash</li> </ul>
NPDES Permit No. CAG994004 – Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	<ul> <li>Uncontaminated pumped ground water</li> <li>Discharges from activities that occur at wellheads, such as well construction, well development (e.g., aquifer pumping tests, well purging), or major well maintenance</li> <li>Gravity flow from foundation drains, footing drains, and crawl space pumps</li> <li>Discharges of ground water from construction and project dewatering⁶</li> </ul>
NPDES Permit No. CAG990002 – Discharges from Utility Vaults and Underground Structures to Surface Waters	<ul> <li>Uncontaminated pumped ground water</li> <li>Gravity flow from foundation drains, footing drains, and crawl space pumps</li> </ul>
NPDES Permit No. CAG674001 – Discharges From Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	<ul> <li>Discharges of low threat hydrostatic test water⁷</li> </ul>

⁶ Discharges of ground water from construction and project dewatering include treated or untreated wastewater from permanent or temporary construction dewatering operations; ground water pumped as an aid in the containment and/or cleanup of a contaminant plume; ground water extracted during short-term and long-term pumping/aquifer tests; ground water generated from well drilling, construction or development and purging of wells; equipment decontamination water; subterranean seepage dewatering; incidental collected storm water from basements; and other process and non-process wastewater discharges that meet the eligibility criteria and could not be covered under another specific general NPDES permit.

⁷ Low threat hydrostatic test water means discharges resulting from the hydrostatic testing or structural integrity testing of pipes, tanks, or any storage vessels using domestic water or from the repair and maintenance of pipes, tanks, or reservoirs.

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Order/NPDES Permit No.	Applicable Types of Discharges
NPDES Permit No. CAG914001 – Discharges of Treated Groundwater from Investigation and/or Cleanup of Volatile Organic Compounds Contaminated-Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	<ul> <li>Discharges of treated ground water from investigation and/or cleanup of volatile organic compound (VOC) contaminated sites</li> </ul>
NPDES Permit No. CAG994005 – Discharges of Ground Water from Water Supply Wells to Surface Waters in Los Angeles and Ventura Counties	<ul> <li>Discharges of ground water from potable water supply wells⁸</li> </ul>
NPDES Permit No. CAG834001 – Waste Discharge Requirements for Treated Groundwater and Other Wastewaters from Investigation and/or Cleanup of Petroleum Fuel- Contaminated Sites to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties	<ul> <li>Discharges of treated ground water and other waste waters from investigation and/or cleanup of petroleum fuel contaminated sites</li> </ul>

This Order explicitly adds another category of authorized non-storm water discharge for discharges authorized by USEPA pursuant to sections 104(a) or 104(b) of the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). These discharges typically consist of short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or USEPA or State-required compliance testing of potable water treatment plants, as part of a USEPA authorized groundwater remediation action under CERCLA. These discharges through the MS4 are only authorized if: (i) the discharge will comply with water quality standards identified as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA; or (ii) the discharge is subject to either (a) a written waiver of ARARs by USEPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation, pursuant to 40 CFR section 300.415(j). Additionally, a decision to authorize a discharge through the MS4 to surface waters will not be made by USEPA without first conducting a comprehensive evaluation of containment, treatment, reinjection, or re-use options for the water generated from the subject wells. If a decision to discharge through the MS4 is made, USEPA's authorization of the discharge under CERCLA will require that the discharger shall:

⁸ Discharges covered by this permit include ground water from potable water supply wells generated during the following activities: ground water generated during well purging for data collection purposes; ground water extracted from major well rehabilitation and redevelopment activities; and ground water generated from well drilling, construction, and development.

- (1) Implement BMPs to minimize the rate and duration of the discharge and remove excessive solids, and implement other on-site physical treatment where feasible.
- (2) Promote infiltration of discharged water in locations that will prevent or minimize degradation of groundwater quality.
- (3) Notify the affected MS4 Permittees, including the LACFCD and the MS4 Permittee with land use authority over the discharge location, and the Regional Water Board at least one week prior to a planned discharge (unless USEPA determines in writing that exigent circumstances require a shorter notice period) and as soon as possible (but no later than 24 hours after the discharge has occurred) for unplanned discharges;
- (4) Monitor any pollutants of concern in the discharge⁹; and
- (5) Maintain records for all discharges greater than one acre-foot.¹⁰

In addition to requiring NPDES permit coverage for applicable categories of nonstorm water discharges, this Order contains language that specifies certain conditions, including implementation of BMPs, for each category of conditionally exempt non-storm water discharge that must be met in order for the non-storm water discharge to be exempted from the non-storm water prohibition and thus allowed through the MS4.

The California Recycled Water Policy, adopted by the State Water Board in Resolution No. 2009-0011, calls for an increase in the use of recycled water from municipal wastewater sources that meet the definition in California Water Code section 13050(n), in a manner that implements state and federal water quality laws. In support of the California Recycled Water Policy, a provision has been added requiring that alternative means of disposal or opportunities for capture, reclamation, and reuse must be evaluated prior to discharging any of the non-storm water discharge categories to the MS4. In addition, to ensure the protection of receiving water quality all non-storm water discharges must be segregated from potential sources of pollutants to prevent the introduction of pollutants to the discharge.

In establishing provisions specific to different non-storm water discharge types, the Regional Water Board reviewed non-storm water discharge provisions and BMPS included in other area MS4 permits. MS4 permits reviewed included the Ventura

⁹ Pollutants of concern include, at a minimum, trash and debris, including organic matter, TSS, any pollutant being addressed by the groundwater remediation action under CERCLA, and any pollutant for which there is a Water Quality Based Effluent Limitation in Part VI.E applicable to discharges from the MS4 to the receiving water.

¹⁰ Records shall be maintained, as appropriate, on the: name of CERCLA authorized discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, estimated total number of gallons discharged, type of pollutant removal equipment used, type of dechlorination equipment used if applicable, type (s) of sediment controls used, and field and laboratory monitoring data. Records shall be retained for three years, unless the Regional Water Board requests a longer record retention period and shall be made available upon request by the MS4 Permittee or the Regional Water Board.

County MS4 permit (R4-2009-0057), the Orange County MS4 permit (Order No. R9-2009-0002), the Riverside County MS4 permit (R9-2010-0016), and the San Diego County MS4 permit (R9-2007-0001). Conditions established in this permit for each of the non-storm water discharge categories ensure the protection of receiving water quality and are considered common practices.

Dischargers permitted under NPDES Permit No. CAG990002 are required to contact the appropriate Permittee(s) with jurisdiction over the MS4, including but not limited to the Los Angeles County Flood Control District, within 24 hours, whenever there is a discharge of 50,000 gallons or more from utility vaults and underground structures to the MS4. This MS4 notification requirement for dischargers of uncontaminated pumped groundwater permitted under NPDES Permit No. CAG990002 has been added to this iteration of the permit to ensure that Permittees are aware of the requirement and can monitor the discharge to the MS4 as appropriate.

The conditions for landscape irrigation have been split into potable and reclaimed landscape irrigation categories. As identified in the Orange County MS4 permit incidental runoff from landscape irrigation projects including over irrigation and overspray have the potential to contribute landscape derived pollutants such as bacteria, nutrients, and pesticides to receiving waters. In addition, the California Recycled Water Policy identifies the need for control of incidental runoff from landscape irrigation projects, particularly as it relates to recycled water use. The BMPs incorporated into the permit for potable landscape irrigation ensure that water is conserved, overspray and over irrigation causing incidental runoff is minimized, and exposure to landscape related pollutants is minimized.

State Water Board Water Quality Order No. 2009-0006-DWQ, General Waste Discharge Requirements for Landscape Irrigation Uses of Municipal Recycled Water, is a general permit for producers and distributors of recycled water for landscape irrigation uses. As part of this general permit, the producers and distributors of recycled water for landscape irrigation are required to develop an Operations and Maintenance Plan (O&M Plan) that includes an Operations Plan and an Irrigation Management Plan. Therefore, any reclaimed landscape irrigation discharges to the MS4 must comply with the relevant portion of the O&M Plan including the Irrigation Management Plan. By explicitly referencing the O&M requirement in this permit, it centralizes the requirements for reclaimed landscape irrigation and helps to ensure that procedures are in place for conserving water, minimizing incidental runoff, and minimizing exposure to landscape related pollutants.

Non-storm water discharge provisions have been added for the dewatering of lakes to the MS4. The provisions for the dewatering of lakes including removing and legally disposing of all visible trash on the shoreline or on the surface of the lake and the cleaning of the MS4 inlet and outlet where the water will be discharged to the receiving water have been consistently incorporated into Regional Water Board authorizations to discharge non-storm water from lakes, reservoirs, and ponds. In addition provisions for volumetrically and velocity controlling discharges as well as taking measurements to stabilize lake bottom sediments are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level. The permit provisions for the dewatering of lakes ensure the protection of receiving water quality.

Basin plan requirements for residual chlorine have been explicitly included in the conditions for potable drinking water supply and distribution system releases, dechlorinated/debrominated swimming pool/spa discharges, and dewatering of decorative fountains. Related to swimming pool discharges, discharges of cleaning wastewater and filter backwash are specifically mentioned as being allowed only if authorized under a separate NPDES permit. The Regional Water Board has a general permit for discharges of nonprocess wastewater to surface waters in coastal watersheds of Los Angeles and Ventura counties (NPDES Permit No. CAG994003) that may address discharges of cleaning wastewater and filter backwash.

Specific BMPs for discharges of swimming pools/spas and the dewatering of decorative fountains have been added to this Order including prohibiting the dewatering of swimming pools/spas or decorative fountains containing copper-based algaecides and requiring the implementation of controls to prevent introduction of pollutants prior to discharge. Swimming pool/spa discharges and decorative fountain water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate and if necessary shall be pH adjusted to within the range of 6.5 and 8.5. The MS4 inlet and outlet must be inspected and cleaned out immediately prior to discharge to protect receiving water quality. In addition provisions for volumetrically and velocity controlling discharges are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level.

In addition to the specific inclusion of Basin Plan water quality objectives for residual chlorine, this Order allows discharges of potable drinking water supply and distribution system releases as long as specified BMPs are implemented. BMPs must be implemented to prevent introduction of pollutants to potable water releases prior to discharge to the receiving water. BMPs must be consistent with the American Water Works Association (California – Nevada Section) BMP Manual for Drinking Water System Releases and other applicable guidelines. Similar to discharges of swimming pools/spas and dewatering of decorative fountains, potable drinking water supply releases must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate and if necessary shall be pH adjusted to within the range of 6.5 and 8.5. The MS4 inlet and outlet must be inspected and cleaned out immediately prior to discharge to protect receiving water guality. BMPs such as sand bags or gravel bags, or other appropriate means shall be utilized to prevent sediment transport and all sediment shall be collected and disposed of in a legal and appropriate manner. In addition provisions for volumetrically and velocity controlling discharges are incorporated into the provisions of this Order to ensure that turbidity in receiving waters are maintained at an acceptable level.

The permit provisions for potable drinking water supply and distribution system releases, dechlorinated/debrominated swimming pool/spa discharges, and dewatering of decorative fountains ensures the protection of receiving water quality.

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The Regional Water Board evaluated and established a list of approved BMPs for various programs and activities through Regional Water Board Resolution 98-08 that serves as appropriate BMPs for inclusion in the Discharger and Permittees' regulatory programs. Requirements for street/sidewalk wash water contained in Resolution 98-08 have also been explicitly incorporated into this Order. The inclusion of the requirements contained in Resolution 98-08 helps to ensure that Permittees are aware of the requirements and ensures the protection of receiving water quality.

Specific BMPs for discharges from non-commercial car washing have been incorporated into this Order to prevent the introduction of pollutants prior to discharge. BMPs that must be implemented for the discharge of non-commercial vehicle wash water include minimizing the amount of water used by turning off nozzles or kinking the hose when not spraying a vehicle and by using a pressure washer; using biodegradable, phosphate free detergents and non-toxic cleaning products; where possible, washing vehicles on permeable surfaces where wash water can percolate into the ground; creating a temporary berm or block off the storm drains; using pumps or vacuums to direct water to pervious areas; and emptying buckets of soapy water or rinse water into the sanitary sewer system. These BMPs are common practice and ensure the protection of receiving water quality.

The inclusion of conditions for flows related to non-emergency fire-fighting activities is new to this iteration of the permit. Conditions for discharges related to fire fighting activities have been incorporated into other MS4 permits including both Orange County and Riverside County. Flows resulting from emergency fire fighting activities necessary for the protection of life or property do not require implementation of specific BMPs.

The specific BMPs for discharges associated with non-emergency fire fighting activities that have been incorporated into this Order have been incorporated into other California MS4 permits. Both the Riverside County and Orange County MS4 permits require the development and implementation of a program to address pollutants from non-emergency fire fighting flows. Rather than develop a program to address non-emergency fire fighting flows, common BMPs used in association with non-emergency fire fighting discharges have been incorporated into this Order. Guidance on BMPs contained in this Order for non-emergency fire fighting activities is available in the Best Management Practices Plan for Urban Runoff Management for Participating Riverside County Fire Fighting Agencies.

The inclusion of specific conditions for exempted non-storm water discharges in this Order centralizes the requirements for non-storm water discharges. Conditions established in this permit for each of the conditionally exempt non-storm water discharge categories are common practice and have been incorporated into other area MS4 permits.

#### 6. Permittee Requirements for Non-Storm Water Discharges

This Order includes specific requirements for Permittees related to more targeted screening of MS4 outfalls for non-storm water discharges, and monitoring and evaluation of significant non-storm water discharges. Permittees are required to develop and implement procedures to ensure that all conditions required for conditionally exempt non-storm water discharges are being implemented. These requirements also help to clarify the responsibilities of the Permittees versus the responsibilities of the non-MS4 Permittee dischargers to the MS4. The development and implementation of these procedures helps to ensure compliance with the nonstorm water discharge prohibition and ensure that the non-storm water discharges are not sources of pollutants.

#### **B.** Technology-Based Effluent Limitations

Section 301(b)(1)(A) of the CWA and 40 CFR section 122.44(a) require that NPDES permits include technology based effluent limitations.¹¹ In 1987, the CWA was amended to require that municipal storm water discharges "reduce the discharge of pollutants to the maximum extent practicable." (CWA § 402(p)(3)(B)(iii).) The "maximum extent practicable" (MEP) standard is the applicable federal technology based standard that MS4 owners and operators must attain to comply with their NPDES permits.¹² The corresponding regulatory provisions that further detail the MEP standard can be found in 40 CFR sections 122.26(d)(2)(iv) and 122.44(k)(2).

Neither Congress nor the USEPA has specifically defined the term "maximum extent practicable." Rather, the MEP standard is a flexible and evolving standard. Congress established this flexible MEP standard so that administrative bodies would have "the tools to meet the fundamental goals of the Clean Water Act in the context of storm water pollution."¹³ This standard was designed to allow permit writers flexibility to tailor permits to the site-specific nature of MS4s and to use a combination of pollution controls that may be different in different permits.¹⁴ The MEP standard is also expected to evolve in light of programmatic improvements, new source control initiatives, and technological advances that serve to improve the overall effectiveness of storm water management programs in reducing pollutant loading to receiving waters. This is consistent with USEPA's interpretation of storm water management programs. As explained by USEPA in its 1990 rulemaking, "EPA anticipates that storm water management programs will evolve and mature over time" (55 Fed. Reg. 47990, 48052 (Nov. 16, 1990)). There is ample evidence of this evolution in storm water management. Two local examples include the development of full capture trash control devices in response to the Los Angeles Region Trash TMDLs, and the development of innovative media filters for use

¹¹ A technology based effluent limitation is based on the capability of a model treatment method to reduce a pollutant to a certain concentration (NPDES Permit Writer's Manual, Appendix A). Technology based requirements represent the minimum level of control that must be imposed in a permit issued under CWA § 402.

Note that the MEP standard only applies to storm water discharges from the MS4. Non-storm water discharges are subject to a different standard – specifically, non-storm water discharges through the MS4 must be effectively prohibited. ¹³ Building Industry Ass'n of San Diego County v. State Water Resources Control Board, 124 Cal. App. 4th 866, 884 (2004).

¹⁴ In re City of Irving, Texas, Municipal Storm Sewer System, (July 16, 2001), 10 E.A.D. 111 (E.P.A.), *6.

in outfalls at the Boeing Santa Susana Field Laboratory that have potential municipal applications.

To provide clarification to the Regional Water Boards, the State Water Board's Office of Chief Counsel issued a memorandum dated February 11, 1993 regarding the "Definition of 'Maximum Extent Practicable". In the memorandum, the State Water Board interpreted the MEP standard to entail "a serious attempt to comply," and that under the MEP standard, "practical solutions may not be lightly rejected." The memorandum states, "[i]n selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to *the maximum extent practicable*. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive." The memorandum further states that, "[a]fter selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented."

This Order includes programmatic requirements in six areas pursuant to 40 CFR section 122.26(d)(2)(iv) as well as numeric design standards for storm water runoff from new development and redevelopment consistent with the federal MEP standard (see State Water Board Order WQ 2000-11, the "LA SUSMP Order"). This Order also includes protocols for periodically evaluating and modifying or adding control measures, consistent with the concept that MEP is an evolving and flexible standard.

Finally, this Order includes BMP Performance Standards derived from the International BMP Database as a guide for BMP selection and design, and as a tool for evaluating the effectiveness of individual post-construction BMPs in reducing pollutant loads and assessing compliance with the MEP standard. USEPA recommends the use of numeric benchmarks for BMPs to estimate BMP effectiveness and as triggers for taking additional actions such as evaluating the effectiveness of individual BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.¹⁵

## C. Water Quality-Based Effluent Limitations (WQBELs)

In addition to requiring that MS4 permits include technology based requirements consistent with the MEP standard, section 402(p)(3)(B)(iii) of the CWA authorizes the inclusion of "such other provisions as the Administrator or the State determines appropriate for the control of [] pollutants."¹⁶ This requirement gives USEPA or the State permitting authority discretion to determine what permit conditions are necessary to control pollutants. Generally, permit requirements designed to achieve water quality standards are referred to as water quality based effluent limitations (WQBELs). A

¹⁵ See USEPA November 22, 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs."

¹⁶ The first and second iterations of the Los Angeles County MS4 Permit relied solely upon requirements consistent with the MEP standard to work toward achieving water quality standards. Note that the MEP standard is distinct from a water quality based standard; each has a different basis. Therefore, while from a practical point of view, the goal of all MS4 permit conditions is to control pollutants in discharges to ultimately achieve certain water quality outcomes, water quality based standards are directly derived from this desired outcome, while the MEP standard is anticipated to be a way of working toward the desired outcome, but is not directly derived from it,

WQBEL is a restriction on the quantity or concentration of a pollutant that may be discharged from a point source into a receiving water that is necessary to achieve an applicable water quality standard in the receiving water.¹⁷ WQBELs may be expressed narratively or numerically.

In its Phase I Stormwater Regulations, Final Rule, USEPA elaborated on these requirements, stating that, "permits for discharges from municipal separate storm sewer systems must require controls to reduce the discharge of pollutants to the maximum extent practicable, and where necessary water quality-based controls" (see 55 Fed. Reg. 47990, 47994 (Nov. 16, 1990). In December 1999, USEPA reiterated in its Phase II Stormwater Regulations, Final Rule that MS4 "permit conditions must provide for attainment of applicable water quality standards (including designated uses), allocations of pollutant loads established by a TMDL, and timing requirements for implementation of a TMDL."¹⁸ The State Water Board has affirmed that MS4 permits must include requirements necessary to achieve compliance with the applicable technology based standard of MEP and to achieve water quality standards.¹⁹

WQBELs are required for point source discharges that have the reasonable potential to cause or contribute to an excursion of water quality standards and technology based effluent limitations or standards are not sufficient to achieve water quality standards.²⁰

The State Water Board has previously concluded that sole reliance in MS4 permits on BMP based requirements is not sufficient to ensure attainment of water quality standards (see State Water Board Order 2001-015). The Regional Water Board concurs with this conclusion. This conclusion is amply supported by Regional Water Board and USEPA established TMDLs for impaired waters in the Los Angeles Region, indicating that MS4 discharges are a continuing source of pollutants to the impaired receiving waters notwithstanding the implementation of storm water management programs that have been driven by the MEP standard by Permittees for the last two decades.

In this Order, WQBELs are included where the Regional Water Board has determined that discharges from the MS4 have the reasonable potential to cause or contribute to an excursion above water quality standards.²¹ Reasonable potential can be demonstrated in several ways, one of which is through the TMDL development process. Where a point source is assigned a WLA in a TMDL, the analysis conducted in the development of the TMDL provides the basis for the Regional Water Board's determination that the discharge has the reasonable potential to cause or contribute to an exceedance of water quality standards in the receiving water. This approach is affirmed in USEPA's Permit Writer's Manual, which states, "[w]here there is a pollutant with a WLA from a TMDL, a permit writer must develop WQBELs." Therefore, WQBELs are included in this Order for all pollutants for which a WLA is assigned to MS4 discharges.

¹⁹ See, e.g., State Water Board Order WQ 2001-15.

¹⁷ See 40 CFR § 122.2; NPDES Permit Writer's Manual, Appendix A. A WQBEL is distinguished from a technology based effluent limitation (TBEL) in that the basis for the WQBEL is the applicable water quality standard for the receiving water, while the basis for the TBEL is generally the performance of the best available technology.

¹⁸ See, e.g., Phase II Stormwater Regulations, Final Rule, 64 Fed. Reg. 68722, 68737.

²⁰ 40 CFR §§ 122.44(d)(1)(i); 122.44(d)(1)(iii)

²¹ 40 CFR §§ 122.44(d)(1)(i)-(iii); 122.44(d)(1)(vii)(B)

Federal regulations further require that, "when developing water quality-based effluent limits...the permitting authority shall ensure that effluent limits ... are consistent with the assumptions and requirements of any available wasteload allocation for the discharge..." (40 CFR § 122.44(d)(1)(vii)(B)).

The Regional Water Board interprets this to mean that the final WQBEL must be expressed in similar terms as the underlying WLA; for example, where a TMDL includes WLAs for MS4 discharges that provide numeric pollutant load objectives, the WLA should be translated into numeric WQBELs in the permit, and at a level to achieve the same expected water quality outcome. USEPA also recommends the use of numeric WQBELs to meet water quality standards where MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion. Numeric WQBELs will help clarify MS4 permit requirements and improve accountability in this permit term.

While BMPs²² are central to MS4 permits, permit requirements may only rely upon BMP based limitations in lieu of water quality based effluent limitations if: (1) the BMPs are adequate to achieve water quality standards, and (2) numeric effluent limitations are infeasible.²³ As discussed earlier, the State and Regional Water Boards have concluded that sole reliance on MEP based permit requirements is not sufficient to ensure the achievement of water quality standards. Further, there is insufficient data and information available at this time on the prospective implementation of BMPs throughout Los Angeles County to provide the Regional Water Board reasonable assurance that the BMPs would be sufficient to achieve the WQBELs.²⁴

Regarding the feasibility of numeric effluent limitations, the Regional Water Board concludes that numeric WQBELs are feasible. While a lack of data may have hampered the development of numeric effluent limitations for MS4 discharges in earlier permit cycles, in the last decade, 33 TMDLs have been developed for water bodies in Los Angeles County in which WLAs are assigned to MS4 discharges. In each case, part of the development process entailed analyzing pollutant sources and allocating loads using empirical relationships or modeling approaches. As a result, it is possible to use these numeric WLAs to derive numeric WQBELs for MS4 discharges. USEPA has also acknowledged that its expectations regarding the application of numeric WQBELs to municipal storm water discharges have changed as the storm water permit program has continued to mature over the last decade.²⁵

²² Note that best management practices and effluent limitations are two different types of permit requirements (see 40 CFR §§ 122.2; 122.44(k), which distinguish the two terms and describe their relationship to each other).

²³ 40 CFR §§ 122.44(d)(1); 122.44(k)(3); see also State Water Board Order 91-03; Memorandum from Elizabeth Miller Jennings, Office of Chief Counsel to Bruce Fujimoto, Division of Water Quality, "Municipal Storm Water Permits: Compliance with Water Quality Objectives," October 3, 1995.

²⁴ USEPA states in its 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" that, "[w]hen a non-numeric water qualitybased effluent limit is imposed, the permit's administrative record, including the fact sheet when one is required, needs to support that the BMPs are expected to be sufficient to implement the WLA in the TMDL," citing 40 CFR §§ 124.8, 124.9, and 124.18. See also USEPA's 2010 memorandum revising the 2002 memorandum.

²⁵ See USEPA 2010 memorandum, "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" in which USEPA states, "where the NPDES permitting authority determines that MS4 discharges...have the reasonable potential to cause or contribute to water quality standards excursions, permit for MS4s...should contain numeric effluent limitations where feasible to do so." USEPA further states, "[w]here the TMDL includes WLAs for stormwater sources

The inclusion of numeric WQBELs is also consistent with the Ninth Circuit Court of Appeal's ruling in *Defenders of Wildlife v. Browner* (191 F.3d 1159, 1166 (1999)) that the permitting authority has discretion regarding the nature and timing of requirements that it includes as MS4 permit conditions to attain water quality standards, and that these requirements may include numeric effluent limitations.

Further, given the variability in implementation of storm water management programs across Permittees, numeric WQBELs create an objective, equitable and accountable means of controlling MS4 discharges, while providing the flexibility for Permittees to comply with the WQBELs in any lawful manner.

## D. Final Effluent Limitations

Final WQBELs are included in this Order based on the final WLAs assigned to discharges from the Los Angeles County MS4 in all available TMDLs.

MS4 permits can include compliance schedules for achieving final WQBELs derived from TMDL WLAs, so long as the compliance schedule is consistent with a TMDL implementation plan adopted by the Regional Water Board and approved through the State's basin plan amendment process. If a compliance schedule exceeds one year, it must include interim requirements pursuant to 40 CFR section 122.47.

Section 402(o) of the CWA and 40 CFR section 122.44(I) require that effluent limitations or conditions in reissued orders be at least as stringent as those in the existing order. This Order carries over the final receiving water limitations and WQBELs that were included to implement the Marina del Rey Harbor Back Basins and Mothers' Beach Bacteria TMDL and the Los Angeles River Trash TMDL, respectively, in the 2007 and 2009 amendments to Order No. 01-182.

## E. Interim Effluent Limitations

Where there is a TMDL implementation plan adopted by the Regional Water Board and approved through the State's basin plan amendment process, interim WQBELs are included in this Order based on interim WLAs established for MS4 discharges.

## V. RATIONALE FOR RECEIVING WATER LIMITATIONS

## A. Receiving Water Limitations

Receiving water limitations are included in all NPDES permits issued pursuant to CWA section 402. USEPA reiterated in its Phase II Stormwater Regulations, Final Rule, that MS4 "permit conditions must provide for attainment of applicable water quality standards (including designated uses), allocations of pollutant loads established by a TMDL, and timing requirements for implementation of a TMDL."²⁶ USEPA Region IX has also affirmed the agency's position that MS4 discharges must meet water quality

that provide numeric pollutant load...objectives, the WLA should, where feasible, be translated into numeric WQBELs in the _____applicable stormwater permits."

²⁶ See, e.g., Phase II Stormwater Regulations, Final Rule, 64 Fed. Reg. 68722, 68737.

standards in a series of comment letters on MS4 permits issued by various California regional water boards.²⁷ Both the State Water Board and Regional Water Board have previously concluded that discharges from the MS4 contain pollutants that have the reasonable potential to cause or contribute to excursion above water quality standards.

The Ninth Circuit Court of Appeals explained that, "[w]ater quality standards are used as a supplementary basis for effluent limitations [guidelines] so that numerous dischargers, despite their individual compliance with technology based effluent limitations, can be regulated to prevent water quality from falling below acceptable levels" (*NRDC v. County of Los Angeles*, 673 F.3d 880, 886). Receiving water limitations are included in this Order to ensure that individual and collective discharges from the MS4 do not cause or contribute to exceedances of water quality standards necessary to protect the beneficial uses of the receiving waters.

The receiving water limitations in this Order consist of all applicable numeric or narrative water quality objectives or criteria, or limitations to implement the applicable water quality objectives or criteria, for receiving waters as contained in Chapters 3 and 7 of the Basin Plan, water quality control plans or policies adopted by the State Water Resources Control Board, including Resolution No. 68-16, or federal regulations, including but not limited to, 40 CFR sections 131.12 and 131.38. The water quality objectives in the Basin Plan have been approved by USEPA and combined with the designated beneficial uses constitute the water quality standards required under federal law.

This Order includes three main provisions related to receiving water limitations. First, consistent with CWA section 402(p)(B)(3)(iii) and 40 CFR section 122.44(d)(1), it includes a provision stating that discharges from the MS4 that cause or contribute to an exceedance of receiving water limitations are prohibited. This is also in accord with the State Water Board's finding in Order WQ 98-01 ("The [State Water Board] agrees that the NPDES permit must prohibit discharges that "cause" or "contribute" to violations of water quality standards."). Second, it includes a provision stating that discharges from the MS4 of stormwater or non-stormwater, for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance.²⁸

Third, it includes a provision that states that Permittees shall achieve these two prohibitions "through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications." This third provision elucidates the process by which Permittees are expected to achieve the first two provisions and then outlines the so-called "iterative process" whereby certain actions are required when exceedances of receiving water limitations occur and discharges from the MS4 are implicated. This iterative process includes submitting a Receiving Water Limitations Compliance Report; revising the

²⁷ See, e.g., letter from Alexis Strauss, Acting Director, Water Division, USEPA Region IX, to Walt Pettit, Executive Director, State Water Board, re: SWRCB/OCC File A-1041 for Orange County, dated January 21, 1998.

²⁸ Wat. Code, § 13377 ("the state board or the regional boards shall . . . issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the [CWA], thereto, together with any more stringent effluent standards or limitations necessary to implement waste quality control plans, or for the protection of beneficial uses, or to prevent nuisance").

storm water management program and its components to include additional BMPs, an implementation schedule and additional monitoring to address the exceedances; and implementing the revised storm water management program. The inclusion of this protocol for estimating BMP effectiveness and taking additional actions such as implementing additional BMPs and/or modifying BMPs to improve their effectiveness when monitoring demonstrates that they are necessary to protect water quality is consistent with USEPA's expectations for MS4 permits.²⁹

The State and Regional Water Boards have stated that each of the three provisions are independently applicable, meaning that compliance with one provision does not provide a "safe harbor" where there is non-compliance with another provision (i.e., compliance with the third provision does not shield a Permittee who may have violated the first or second provision from an enforcement action). Rather, the third provision is intended to ensure that the necessary storm water management programs and controls are in place, and that they are modified by Permittees in a timely fashion when necessary, so that the first two provisions are achieved as soon as possible. USEPA expressed the importance of this independent applicability in a series of comment letters on MS4 permits proposed by various regional water boards. At that time, USEPA expressly objected to certain MS4 permits that included language stating, "permittees will not be in violation of this [receiving water limitation] provision ..." (if certain steps are taken to evaluate and improve the effectiveness of the Drainage Area Management Plan (DAMP)), concluding that this phrase would not comply with the CWA.³⁰

The receiving water limitations provisions in this Order are the same as those included in the previous Los Angeles County MS4 Permit provisions, and are based on precedential State Water Board Orders WQ 98-01 and WQ 99-05.

The Receiving Water Limitations provisions of Order No. 01-182 have been litigated twice, and in both cases the courts have upheld the language and the State and Regional Water Board's interpretation of it. Both courts ruled that the first two provisions are independently applicable from the third provision that establishes the "iterative process" requirements and no "safe harbor" exists.

The provisions were first litigated in 2005 where the Los Angeles County Superior Court stated, "In sum, the Regional [Water] Board acted within its authority when it included Parts 2.1 and 2.2 in the Permit without a 'safe harbor,' whether or not compliance therewith requires efforts that exceed the 'MEP' standard." (*In re L.A. Cnty. Mun. Storm Water Permit Litig.*, No. BS 080548, at 4-5, 7 (L.A. Super. Ct. Mar. 24, 2005).).

The provisions were again litigated in 2011. In that case, the Ninth Circuit Court of Appeal in *NRDC v. County of Los Angeles* (673 F.3d 880, 886) affirmed that the iterative process (in Part 2.3 of the 2001 Order) does not "forgive" violations of the discharge prohibitions (in Parts 2.1 and 2.2 of the 2001 Order). The court acknowledged that Part 2.3 clarifies that Parts 2 and 3 interact, but the court concluded that Part 2.3 "offers no textual support for the proposition that compliance with certain provisions

²⁹ See, e.g., USEPA 2002 memorandum, "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs."

³⁰ See note 20.

shall forgive non-compliance with the discharge prohibitions." The Ninth Circuit further concluded that, "[a]s opposed to absolving noncompliance or exclusively adopting the MEP standard, the iterative process ensures that if water quality standards 'persist,' despite prior abatement efforts, a process will commence whereby a responsible Permittee amends its SQMP. Given that Part 3 of the [2001] Permit states that SQMP implementation is the 'minimum' required of each Permittee, the discharge prohibitions serve as additional requirements that operate as enforceable water-quality-based performance standards required by the Regional Board."

This Order includes requirements in Part VI.E of this Order to implement WLAs assigned to MS4 discharges from 33 TMDLs. Those TMDLs adopted through the State's basin planning process include programs of implementation pursuant to California Water Code section 13242, including implementation schedules, for attaining water quality standards. The TMDL provisions in Part VI.E and attachments include compliance schedules for TMDLs adopted by the Regional Water Board consistent with the TMDL implementation schedule to achieve the final receiving water limitations. The Regional Water Board recognizes that, in the case of impaired waters subject to a TMDL, the permit's receiving water limitations for the pollutants addressed by the TMDL may be exceeded during the period of TMDL implementation. Therefore, this Order provides, in Part VI.E.2.c, that an MS4 Permittee shall not be considered in violation of a receiving water limitation in Part V.A. of this Order for the particular pollutant addressed by the TMDL, if the Permittee is in full compliance with the applicable TMDL requirements pursuant to the compliance schedules in this Order.

For water body-pollutant combinations not addressed by a TMDL, the Regional Water Board will work with the MS4 Permittees through the process outlined in Part V.A.3 in this Order or the prioritization and adaptive management processes in Permittees' watershed management programs (which mirror the iterative process in Part V.A.3), so that additional controls are implemented in an expeditious manner to address exceedances of receiving water limitations that are caused or contributed to by discharges from the MS4. Generally, to comply with Part V.A.3, the Regional Water Board expects that MS4 Permittees will address isolated exceedances of receiving water limitations through the screening of MS4 outfalls for significant non-storm water discharges and subsequent source identification (including monitoring and comparison to non-storm water action levels, where appropriate) and elimination actions and through its illicit connection/illicit discharges elimination program. For persistent exceedances of receiving water limitations, the Regional Water Board expects that MS4 Permittees will comply with Part V.A.3 by first undertaking a detailed source assessment in the contributing drainage area as part of its watershed management program (as required by Part VI.C.3.a.iii of this Order), and identifying and implementing additional BMPs and other control measures (as required by Parts VI.C.3.b and VI.C.4 of this Order). The detailed source assessment and identification of BMPs and control measures may also be conducted during the adaptive management process of the watershed management program in response to exceedances of receiving water limitations that occur between the initial development of the watershed management program and the first evaluation of program effectiveness.

#### **VI. RATIONALE FOR PROVISIONS**

#### A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. Dischargers must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42.

#### **B.** Watershed Management Programs

The purpose of the Watershed Management Programs is to provide a framework for Permittees to implement the requirements of this Order in an integrated and collaborative fashion to address water quality priorities on a watershed scale. This watershed management paradigm is consistent with federal regulations that support the development of permit conditions, as well as the implementation of storm water management programs, at a watershed scale (40 CFR §§ 122.26(a)(3)(ii), 122.26(a)(3)(v), and 122.26(d)(2)(iv)). USEPA later issued a Watershed-Based NPDES Permitting Policy Statement (USEPA, 2003) that defines watershed-based permitting as an approach that produces NPDES permits that are issued to point sources on a geographic or watershed basis. In this policy statement, USEPA explains that, "[t]he utility of this tool relies heavily on a detailed, integrated, and inclusive watershed planning process." USEPA identifies a number of important benefits of watershed permitting, including more environmentally effective results; the ability to emphasize measuring the effectiveness of targeted actions on improvements in water quality; reduced cost of improving the quality of the nation's waters; and more effective implementation of watershed plans, including TMDLs, among others.

There are several reasons for this shift in emphasis from Order No. 01-182. A watershed based structure for permit implementation is consistent with TMDLs developed by the Los Angeles Water Board and USEPA, which are established at a watershed or subwatershed scale and are a prominent new part of this Order. Many of the Permittees regulated by this Order have already begun collaborating on a watershed scale to develop monitoring and implementation plans required by TMDLs. Additionally, a watershed based structure comports with the recent amendment to the Los Angeles County Flood Control Act (Assembly Bill 2554 in 2010), which allows the LACFCD to assess a parcel tax for storm water and clean water programs. Funding is subject to voter approval in accordance with Proposition 218. Fifty percent of funding is allocated to nine "watershed authority groups" to implement collaborative water quality improvement plans.

An emphasis on watersheds is appropriate at this stage in the region's MS4 program to shift the focus of the Permittees from rote program development and implementation to more targeted, water quality driven planning and implementation. Addressing MS4 discharges on a watershed scale focuses on water quality results by emphasizing the receiving waters within the watershed. The conditions of the receiving waters drive

management actions, which in turn focus on the measures to address pollutant contributions from MS4 discharges.

The ultimate goal of the Watershed Management Programs is to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable WQBELs that implement TMDLs, (ii) do not cause or contribute to exceedances of receiving water limitations, and (iii) for non-storm water discharges from the MS4, are not a source of pollutants to receiving waters.

After more than 20 years of program implementation, it is critical that the Permittees design and implement their programs based on their improved knowledge of storm water and its impacts on local receiving waters and by employing BMPs and other control measures that have been developed and refined over the past two decades. The are Watershed Management Programs driven by strategic planning and implementation, which will ultimately result in more cost effective implementation. The Watershed Management Programs will provide permittees with the flexibility to prioritize and customize control measures to address the water quality issues specific to the watershed management area (WMA), consistent with federal regulations (40 CFR § 122.26(d)(2)(iv)).

Focusing on watershed implementation does not mean that the Permittees must expend funds outside of their jurisdictions. Rather, the Permittees within each watershed are expected to collaborate to develop a watershed strategy to address the high priority water quality problems within each watershed. They have the option of implementing the strategy in the manner they find to be most effective. Each Permittee can implement the strategy individually within its jurisdiction, or the Permittees can group together to implement the strategy throughout the watershed.

While this Order includes a new emphasis on addressing MS4 discharges on a watershed basis, this Order includes recognition of the importance of continued program implementation on jurisdictional levels. This Order also acknowledges that jurisdictional and watershed efforts may be integrated to achieve water quality outcomes.

In this Order, the watershed requirements serve as the mechanism for this program integration. Since jurisdictional activities also serve watershed purposes, such activities can be integrated into the Permittees' watershed management programs. Such opportunities for program integration inherently provide flexibility to the Permittees in implementing their programs. Program integration can be expanded or minimized as the Permittees see fit. Some Permittees may opt to continue jurisdiction-specific implementation for certain programs, while for other program areas more collaborative watershed scale implementation may be more effective. Permittees identify individual roles and responsibilities as part of the Watershed Management Program Plan.

Permittees can customize the BMPs to be implemented, or required to be implemented, for development, construction, and existing development areas. Flexibility to determine which industrial or commercial sites are to be inspected is also provided to the Permittees. Educational approaches are also to be determined by the Permittees under

this Order. Significant leeway is also provided to the Permittees in using methods to assess the effectiveness of their various runoff management programs. This flexibility is further extended to the monitoring program requirements, which allow the Permittees to develop monitoring approaches to several aspects of the monitoring program.

The challenge in drafting this Order is to provide the flexibility described above, while ensuring that this Order provides baseline requirements and is still enforceable. To achieve this, this Order frequently prescribes baseline or default requirements, such as for each of the six "minimum control measures" within a Permittee's baseline storm water management program, while providing the Permittees with flexibility to propose customized actions as part of their watershed management program.

Permittees that elect to develop a Watershed Management Program must submit a "Notice of Intent" to the Regional Water Board no later than six months after the effective date of this Order. The Notice of Intent must be signed by all Permittees electing to participate in the Watershed Management Program for the Watershed Management Area. Permittees that do not elect to develop a Watershed Management Program are subject to the baseline storm water management program requirements in this Order and must demonstrate compliance with applicable WQBELs through monitoring data collected from the Permittee's outfall(s).

Permittees electing to develop a Watershed Management Program must submit a draft plan for approval by the Regional Water Board Executive Officer no later than one year after the effective date of this Order.

Each Watershed Management Program must:

- 1. Prioritize water quality issues resulting from storm water and non-storm water discharges to the MS4 and from the MS4 to receiving waters within each Watershed Management Area,
- **2.** Identify and implement strategies, control measures, and BMPs to achieve applicable water quality based effluent limitations and/or receiving water limitations, consistent with applicable compliance schedules in this Order,
- **3.** Execute a monitoring and assessment program to determine progress towards achieving applicable limitations, and
- **4.** Revise strategies, control measures, and BMPs as necessary to maintain progress towards achieving applicable limitations.

Watershed Management Programs must be developed using the Regional Water Board's Watershed Management Areas (see Attachments B and C of this Order). Where appropriate, Watershed Management Areas may be separated into subwatersheds to focus water quality prioritization and implementation efforts by receiving water, or to align Permittee groups with "watershed authority groups" designated in the Los Angeles County Flood Control Act, so long as the Permittees implement all TMDL provisions for which they are identified as a responsible Permittee.

Permittees must identify the water quality priorities within each Watershed Management Area that will be addressed by the Watershed Management Program consistent with 40 CFR section 122.26(d)(2)(iv). At a minimum, these priorities must include achieving applicable water quality based effluent limitations and/or receiving water limitations established pursuant to TMDLs and included in this Order.

Each plan must include an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality, consistent with 40 CFR §§ 122.26(d)(1)(iv) and 122.26(d)(2)(iii), to support identification and prioritization/sequencing of management actions.

On the basis of the evaluation of existing water quality conditions, water body-pollutant combinations must be classified into one of the following three categories:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality based effluent limitations and/or receiving water limitations are included in this Order to implement TMDLs.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Listing Policy.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable water quality standards.

Utilizing existing information, potential sources within the watershed for the pollutants in Categories 1 and 2 must be identified, consistent with 40 CFR sections 122.26(d)(1)(iii) and 122.26(d)(2)(ii). Permittees must identify known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the highest water quality priorities (Categories 1 and 2).

Based on the findings of the source assessment, the issues within each watershed must be prioritized and sequenced. Factors that must be considered in establishing watershed priorities include:

- 1. Pollutants for which there are water quality based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term.
- 2. Pollutants for which there are water quality based effluent limitations and/or receiving water limitations with interim or final compliance deadlines between October 26, 2012 and October 25, 2017.
- **3.** Pollutants for which data indicate impairment in the receiving water and the findings from the source assessment implicates discharges from the MS4, but no TMDL has been developed.

Permittees must identify strategies, control measures, and BMPs to implement through their jurisdictional storm water management programs, or collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The following provisions of this Order may be part of the Watershed Control Measures within a Watershed Management Program:

- Minimum Control Measures. Permittees may assess the minimum control measures (MCMs) as defined in this Order to identify opportunities for focusing resources on the high priority issues in each watershed. For each of the following minimum control measures, Permittees may propose modifications that will achieve equivalent pollutant control given watershed priorities:
  - a. Development Construction Program
  - **b.** Industrial/Commercial Program
  - c. Illicit Connection/Illicit Discharge Detection and Elimination Program
  - **d.** Public Agency Activities Program
  - e. Public Information and Participation Program
- 2. Non-Storm Water Discharge Measures. Where Permittees identify non-storm water discharges from the MS4 as a source of pollutants in the source assessment, the Watershed Control Measures must include strategies, control measures, and/or BMPs that will be implemented to effectively eliminate the source of pollutants. These may include measures to prohibit the non-storm water discharge to the MS4, additional BMPs to reduce pollutants in the non-storm water discharge or conveyed by the non-storm water discharge, or strategies to require the non-storm water discharge to be separately regulated under a general NPDES permit.
- **3.** TMDL Control Measures. Permittees must compile control measures that have been identified in TMDLs and corresponding implementation plans. If not sufficiently identified in previous documents, or if implementation plans have not yet been developed (e.g., EPA promulgated TMDLs), the Permittees must evaluate and identify control measures to achieve water quality based effluent limitations and/or receiving water limitations established in this Order pursuant to these TMDLs.
  - **a.** TMDL control measures must include, where necessary, control measures to address both storm water and non-storm water discharges from the MS4.
  - **b.** TMDL control measures may include activities covered under the MCMs as well as BMPs and other control measures covered under the non-stormwater discharge provisions of this Order.
  - **c.** TMDL control measures must include, at a minimum, those actions that will be implemented during the permit term to achieve interim and/or final water quality based effluent limitations and/or receiving water limitations with compliance deadlines within the permit term.

As part of the Watershed Management Program plan, Permittees must conduct a Reasonable Assurance Analysis for each TMDL that consists of an assessment (through quantitative analysis or modeling) to demonstrate that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term.

Permittees must incorporate and, where necessary develop, numeric milestones and compliance schedules into the plan consistent with 40 CFR section 122.47(a). Numeric milestones and schedules shall be used to measure progress towards addressing the highest water quality priorities and achieving applicable water quality based effluent limitations and/or receiving water limitations. Where the TMDL Provisions do not include interim or final water quality based effluent limitations and/or receiving water limitations during the permit term, Permittees must identify interim numeric milestones and compliance schedules to ensure significant progress toward achieving interim and final water quality based effluent limitations and/or receiving water limitations with compliance with deadlines beyond the permit term (40 CFR § 122.47(a)(3)).

Schedules must be developed for both the strategies, control measures and BMPs to be implemented by each individual Permittee within its jurisdiction and for those that will be implemented by multiple Permittees on a watershed scale. Schedules must be adequate for measuring progress at least twice during the permit term. Schedules must incorporate the following:

- 1. Compliance deadlines occurring within the permit term for all applicable interim and/or final water quality based effluent limitations and/or receiving water limitations to implement TMDLs,
- 2. Interim deadlines and numeric milestones within the permit term for any applicable final water quality based effluent limitation and/or receiving water limitation to implement TMDLs, where deadlines within the permit term are not otherwise specified,
- 3. For watershed priorities not related to implementing TMDL provisions:
  - **a.** Numeric milestones based on measureable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,
  - **b.** A schedule with interim and final dates for achieving the numeric milestones as soon as possible, and
  - c. Final dates for achieving the receiving water limitations within the permit term.

Each Permittee must implement the Watershed Management Program immediately after determination by the Regional Water Board Executive Officer that the Watershed Management Program meets the requirements of this Order.

Clean Water Act section 402(a)(2) requires the permitting authority to prescribe conditions for MS4 permits to assure compliance, including conditions on data and information collection, reporting, and such other requirements as appropriate. Consistent with this requirement, Permittees in each Watershed Management Area must develop an integrated program to assess the progress toward achieving the water quality based effluent limitations and/or receiving water limitations per the compliance schedules, and the progress toward addressing the highest water quality priorities for each Watershed Management Area. The integrated watershed monitoring and

assessment program must include the monitoring and assessment requirements of the Monitoring and Reporting Program (MRP) (Attachment E of this Order).

Permittees in each Watershed Management Area must implement the iterative process, at least twice during the permit term, adapting the Watershed Management Program to become more effective, based on, but not limited to the following:

- 1. Progress toward achieving the outcome of improved water quality in MS4 discharges and receiving waters through implementation of the watershed control measures;
- 2. Progress toward achieving interim and/or final water quality based effluent limitations and/or receiving water limitations, or other numeric milestones where specified, according to established compliance schedules;
- Re-evaluation of the highest water quality priorities identified for the Watershed Management Area based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;
- Availability of new information and data from sources other than the Permittees' monitoring program(s) within the Watershed Management Area that informs the effectiveness of the actions implemented by the Permittees;
- 5. Regional Water Board recommendations; and
- 6. Recommendations for modifications to the Watershed Management Program solicited through a public participation process, consistent with 40 CFR section 122.26(d)(2)(iv).

Based on the results of the iterative process, Permittees are required to report any modifications necessary to improve the effectiveness of the Watershed Management Program in the Annual Report, and as part of the Report of Waste Discharge (ROWD). Permittees must implement any modifications to the Watershed Management Program upon acceptance by the Regional Water Board Executive Officer.

#### C. Storm Water Management Program Minimum Control Measures (MCMs)

#### 1. General Requirements

**a.** Basis for MCMs. 40 CFR section 122.26(d)(2)(iv) establishes required elements of the Permittees' storm water management program. The previous permit, Order No. 01-182, included six categories of minimum control measures that are considered to be baseline or default requirements for meeting the requirements of 40 CFR section 122.26(d)(2)(iv). These requirements were determined appropriate within Order No. 01-182 and again appropriate for this Order. The minimum control measures require Permittees to implement BMPs that are considered necessary to reduce pollutants in storm water to the MEP and to

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effectively prohibit non-storm water discharges. In lieu of implementing the MCMs as described in Part VI of this Order, this Order allows for Permittees to develop alternative BMPs to comply with 40 CFR section 122.26(d)(2)(iv), when implemented through a Watershed Management Program approved by the Executive Officer of the Regional Water Board.

# b. Timelines for Implementation

The timelines for implementation of most MCMs contained in Part VI.D of this Order is provided in Table F-5 below. Where implementation dates for minimum control measures are not provided in the Table, Part VI.D.1.b requires implementation within 30 days of the effective date this Order. All obligations continue the implementation of existing MS4 program requirements. The Table below denotes the timeframe for requirements as well as the basis of those timeframes. The majority of the timeframes are consistent with Order No. 01-182 as well as other area permits including the Ventura County MS4 Permit and the State Water Board's Construction General NPDES Permit. The timeframe for notifications, submittals, and attaining compliance with permit requirements are determined to be the earliest practicable periods and ensure timely measures for protection of water quality.

Part Number	Requirement Summary	Timeframe	Basis for Timeframe			
	Discharge Prohibitions					
III.A.2.a.ii	Potable water suppliers must notify MS4 Permittee if intend to discharge to the Permittee's MS4.	At least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge.	Allows for advanced notice and sampling, if warranted.			
III.A.4.e	If the Permittee determines that any of the authorized or conditionally exempt essential non-storm water discharges identified in Parts III.A.1.a through III.A.1.c, III.A.2.a or III.A.3 is a source of pollutants, notify the Regional Water Board if the non-storm water discharge has coverage under a separate NPDES permit or subject to a Record of Decision (ROD) approved under section 121 of CERCLA, or a conditionally exempt essential non- storm water discharge or emergency non-storm water discharge.	Within 30 days of determination.	The language in the previous LA MS4 permit, Order No. 01-182, states "promptly." The specification of a 30 day deadline is considered reasonable and the earliest practicable deadline to ensure the protection of water quality.			
Table III.A	Dewatering of Lakes – Ensure procedures for advanced notification by the lake owner/operator to the Permittee(s).	At least 72 hours in advance of discharge.	Allows for advanced notice and sampling, if warranted.			
Table III.A	Dechlorinated/debrominated swimming pool/spa discharges – Ensure procedures for advanced notification by the pool owner to the Permittee(s) prior to planned	At least 72 hours in advance of discharge.	Allows for advanced notice and sampling, if warranted.			

 Table F-5.
 Timeline for the Implementation of Permit Requirements



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	discharges of one acre-foot or		
	more.		
Table III.A	Dewatering of decorative fountains	At least 72 hours in	Allows for advanced notice
	- Ensure procedures for advanced	advance of discharge.	and sampling, if warranted.
	notification by the fountain owner to		
	the Permittee(s) prior to planned discharges of one acre-foot or		
	more.		
		ter Limitations	I
V.A.3.a	Upon determination by either the	Within 30 days of receipt	The language in the
	Permittee or the Regional Water	of analytical results from	current LA MS4 permit
	Board that discharges from the MS4	the sampling event.	reads "promptly." The
	are causing or contributing to an		specification of a 30 day
	exceedance of an applicable		deadline is considered
	Receiving Water Limitation, the		reasonable and the
	Permittee shall notify the Regional		earliest practicable
	Water Board within 30 days of		deadline to ensure the
	analytical results and thereafter		protection of water quality.
	submit an Integrated Monitoring		
	Compliance Report within the next		
	Annual Report.	With in 20 days	This is a subsistant with
V.A.3.b	Submit any modifications to the	Within 30 days	This is consistent with
	Integrated Monitoring Compliance Report required by the Regional	notification from the	Order No. 01-182
	Water Board	Regional Water Board.	
V.A.3.c	Permittee shall revise its control	Within 30 days following	Allows for adequate time
V.A.0.0	measures and monitoring program	Regional Water Board	to make modifications.
	to incorporate the improved	Executive Officer's	
	modified BMPs that will be	approval of the Integrated	
	implemented, an implementation	Monitoring Report.	
	schedule, and any additional	5 1	
	monitoring required.		
		sions	
VI.A.2.j	Discharger shall file with the	At least 120 days prior to	Standard language.
	Regional Water Board a report of	any change.	
	waste discharge before making any		
	material change or proposed		
	change in the character, location, or		
	volume of the discharge. Special Provisions: Waters	hed Management Program	 6
VI.C.2.b	Permittees that elect to develop a	No later than 6 months	s This provides a reasonable
v1.0.2.0	Watershed Management Program	after the date this Order	amount of time to
	must notify the Regional Water	is adopted.	determine participation in a
	Board.		WMP, but also ensure
			adequate time for
			implementation of
			watershed scale control
			measures during the term
			of this Order.
VI.C.2.c	Permittees that elect to develop a	No later than 1 year after	This provides a reasonable
	Watershed Management Program	the date this Order is	amount of time to
	shall submit a draft plan to the	adopted.	complete the plan but also
	Regional Water Board Executive		ensure effective monitoring
	Officer.		during the term of this
			Order.
VI.C.6.a.i	Permittees in each Watershed	At least twice during the	This encourages



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	Management Area shall implement	permit term.	application of the iterative
	an adaptive management process		approach.
	adapting the Watershed		
	Management Program to become		
	more effective.		
VI.C.6.b.i	Permittees in the Watershed	At least annually.	This encourages
	Management Area shall implement		application of the iterative
	the adaptive management process		approach.
	with regard to its jurisdictional storm		
	water management program to		
	improve its effectiveness.		
	Special Provisions: Min	imum Control Measures	
VI.D.2.a.i	Progressive Enforcement and	Follow-up inspection	This is consistent with the
	Interagency Coordination - In the	within 4 weeks from the	current LA MS4 permit.
	event that a Permittee determines	date of the initial	
	that a facility or site operator has	inspection and/or	
	failed to adequately implement all	investigation.	
	necessary BMPs, that Permittee		
	shall take progressive enforcement		
	which shall include a follow-up		
	inspection.		
VI.D.2.b	Progressive Enforcement and	Initiate investigation	This is consistent with
	interagency Coordination – Each	within one business day	Order No. 01-182.
	Permittee shall initiate investigation	of complaint.	
	of complaints from facilities within		
	its jurisdiction.		
VI.D.4.b.ii	Public Information and Participation	No later than 30 days	This is consistent with
	Program – If participating in a	after a change occurs.	Order No. 01-182 for
	County-wide or Watershed Group		contact changes, which
	PIPP, provide contact information		directs contact changes be
	for their appropriate staff		sent to Los Angeles
	responsible for storm water public		County by May 1, 2002.
	education activities to the		However, with the
	designated PIPP coordinator and		elimination of the Principal
	contact information changes.		Permittee in this Order, it is
			more appropriate to direct
			any contact information
			changes directly to the
	Inductrial/Commercial Ducines		PIPP coordinator.
VI.D.5.b.iii	Industrial/Commercial Business	Update at least annually.	Business turn-over can be
	Program – Each Permittee shall		significant thus an active
	update its inventory of critical		inventory is required.
	Sources.	Notify at least anos	This is required as that the
VI.D.5.c.i	Industrial/Commercial Business Program – Each Permittee shall	Notify at least once	This is required so that the
		during the five-year period of this Order.	owner/operator remains informed and vigilant about
	notify the owner/operator of each of its inventoried commercial and		BMP implementation.
	industrial sites identified in Part		
	VI.D.5.b of this Order of the BMP		
VI.D.5.d.i	requirements applicable.	Provided that the first	Order No. 01 192 required
vi.D.3.u.l	Industrial/Commercial Business		Order No. 01-182 required
	Program – Each Permittee shall	mandatory compliance	initial implementation by
	inspect all commercial facilities	inspection occurs no later	August 2004 (or a little
	identified in Part VI.D.5.b of this	than 2 years after the	over 2.5 years), however
	Order twice during the 5-year term of this Order with a minimum	date this Order is	the 2 year requirement contained in this Order is
		adopted.	



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	interval of 6 months between the		considered reasonable
	first and second mandatory		and the earliest practicable
	compliance inspection required.		deadline to ensure the
			protection of water quality.
VI.D.5.e.i.(1)	Industrial/Commercial Business	No later than 2 years after the date this Order	Order No. 01-182 required
	Program – Each Permittee shall perform an initial compliance	is adopted.	initial implementation by August 2004 (or a little
	inspection of all industrial facilities		over 2.5 years). However,
	identified in Part VI.D.5.b.of this		the 2 year requirement
	Order		contained in this Order is
			considered reasonable
			and the earliest practicable
			deadline to ensure the
VI.D.5.e.i.(2)	Industrial/Commercial Business	The first interval shall	protection of water quality. This specific requirement
V1.D.0.0.1.(Z)	Program – Each Permittee shall	occur approximately 2	for inspecting facilities
	review the State Water Board's	years after the date this	within certain intervals is a
	Storm Water Multiple Application	Order is adopted. The	new requirement, but is
	and Report Tracking System	second interval shall	considered consistent with
	(SMARTS) database at defined intervals to determine if an industrial	occur approximately 4 years after the date this	Order No. 01-182.
	facility has been recently inspected	Order is adopted.	
	by the Regional Water Board. The		
	Permittee does not need to inspect		
	the facility if it is determined that the		
	Regional Water Board conducted		
	an inspection of the facility within the prior 24 month period.		
VI.D.5.e.i.(3)	Industrial/Commercial Business	Approximately 3 to 4	This is consistent Order
(-)	Program – Each Permittee shall	years after the date this	No. 01-182.
	evaluate its inventory of industrial	Order is adopted.	
	facilities and perform a second		
	mandatory compliance inspection at a minimum of 25% of the facilities		
	identified to have filed a No		
	Exposure Certification.		
VI.D.6.c.iii.(4).(f)	Planning and Land Development	Offsite projects shall be	This requirement is
	Program – Each Permittee shall	completed as soon as	consistent with the
	develop a schedule for the	possible, and at the latest	provisions contained in the
	completion of offsite projects, including milestone dates to	within 4 years of the certificate of occupancy	Ventura County Redevelopment Project
	identify, fund, design, and construct	for the first project that	Area Master Plan
	the projects.	contributed funds toward	(RPAMP).
		the construction of the	
		offsite project.	
VI.D.6.c.iv.(2).(b)	<u>Planning and Land Development</u> <u>Program</u> – Each Permittee may	Monitor the treatment	Monitoring of the treatment
	determine, based on data from its	system discharge during the year's first	system is warranted and will also help to ensure
	storm water outfall based	precipitation event during	adequate maintenance.
	monitoring program (Attachment E	the first two years after	
	Part VIII.A.), that the discharge is	completion.	
	not causing an exceedance of water		
	quality standards. In this scenario, the Permittee shall require the		
	project proponent to monitor the		
	treatment system discharge and		



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	report data to the Permittee for inclusion in its Annual Report.		
VI.D.6.d.i	Planning and Land Development Program – A local LID ordinance that fully incorporated the applicable requirements of this Order shall be submitted to the Executive Officer of the Regional Water Board for approval.	Within 180 days after the date this Order is adopted.	The requirement is deemed acceptable due to the large number of existing LID ordinances within the Permittees and the varied number of templates available nationally.
VI.D.6.d.iii.(1).(a) .(ii)	Planning and Land Development <u>Program</u> – Written conditions in the sales or lease agreement, which require the property owner or tenant to assume responsibility for BMP maintenance and conduct a maintenance inspection.	At least once a year.	This is consistent with the current Ventura County MS4 permit.
VI.D.6.d.iv	Planning and Land Development Program – Each Permittee shall implement a tracking system and an inspection and enforcement program from new development and redevelopment post- construction storm water BMPs.	No later than 60 days after the date this Order is adopted.	A tracking system is deemed critical to the success of this MCM. Additionally, a tracking system need not be complex and can, and has, been developed using spreadsheets or equivalent.
VI.D.6.d.iv.(1).(c) .(ii)	Planning and Land Development Program – Inspection of post- construction BMPs to assess operation conditions with particular attention to criteria and procedures for post-construction treatment control and hydromodification control BMP repair, replacement, or re-vegetation.	Inspection at least once every 2 years after project completion.	This is consistent with the current Ventura County MS4 permit.
VI.D.7.j.ii.(1)	Development Construction Program – Inspect public and private construction sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under CWA § 303(d).	When two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA, within 48 hours of a ½-inch rain event, and at least once every two weeks.	This requirement is consistent with the current State Water Board's General NPDES Construction Permit Requirements.
VI.D.7.j.ii.(1)	Development Construction Program – Inspect public and private construction sites 1 acre or larger determined to be a significant threat to water quality.	When two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA, within 48 hours of a ½-inch rain event, and at least once every two weeks.	This requirement is consistent with the current State Water Board's General NPDES Construction Permit Requirements.
VI.D.7.j.ii.(1)	Development Construction Program – Inspect public and private construction sites 1 acre or larger that do not meet other criteria in Part VI.D.7.j.ii.(1) of this Order.	At least monthly.	This requirement is consistent with the current General Construction Permit Requirements.



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
VI.D.8.c.iii	Public Agency Activities Program – Each Permittee shall update its facility inventory.	At least twice during the term of this Order.	This requirement is deemed reasonable because site conditions can change at existing facilities.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority A catch basins.	A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority B catch basins.	A minimum of once during the wet season and once during the dry season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.iii.(2)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall inspect Priority C catch basins.	A minimum of once per year.	This is consistent with Order No. 01-182.
VI.D.8.h.iv.(1).(c)	Public Agency Activities Program – Provide clean out of catch basins, trash receptacles, and grounds in the event area.	Within 24 hours subsequent to the event.	This is consistent with thecurrent Ventura County MS4 permit.
VI.D.8.h.vi.(2)	Public Agency Activities Program – Each Permittee shall inspect the legibility of the stencil or label nearest each inlet.	Prior to the wet season every year.	This is consistent with Order No. 01-182.
VI.D.8.h.vi.(3)	Public Agency Activities Program – Each Permittee shall record all catch basins with illegible stencils and re-stencil or re-label.	Within 180 days of inspection.	This is consistent with Order No. 01-182.
VI.D.8.h.vii.(1)	Public Agency Activities Program – In areas that are not subject to a trash TMDL, each Permittee shall install trash excluders, or equivalent devices, on or in catch basins or outfalls, except at sites where the application of such BMPs alone will cause flooding.	No later than 2 years after the date this Order is adopted in areas specified as Priority A.	This is consistent with the current Ventura County MS4 permit.
VI.D.8.h.viii.(1)	Public Agency Activities Program – Visual monitoring of Permittee- owned open channels and other drainage structures, including debris basins, for debris.	At least annually.	This is consistent with Order No. 01-182.
VI.D.8.h.viii.(2)	Public Agency Activities Program – Removal of trash and debris from open channels and debris basins.	A minimum of once per year before the wet season.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program – Each Permittee shall perform street sweeping of curbed streets for Priority A areas.	Swept at least two times per month.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program – Each Permittee shall perform street sweeping of curbed streets for Priority B areas.	Swept at least once per month.	This is consistent with Order No. 01-182.
VI.D.8.i.ii	Public Agency Activities Program –	Swept as necessary but	This is consistent with



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
	Each Permittee shall perform street sweeping of curbed streets for Priority C areas.	in no case less than once per year.	Order No. 01-182.
VI.D.8.i.iv.(1)	Public Agency Activities Program – Permittee-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned using street sweeping equipment.	No less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a Permittee-owned parking lot be cleaned less than once a month.	This is consistent with Order No. 01-182.
VI.D.8.j.i.(2)	Public Agency Activities Program – Where the self-waiver has been invoked, the Permittee shall submit to the Regional Water Board Executive Officer a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality.	No later than 30 business days after the situation of emergency has passed.	This is consistent with the current Ventura County MS4 permit.
VI.D.8.k.i	Public Agency Activities Program – Each Permittee shall train all of their employees and contractors in targeted positions on the requirements of the overall storm water management program.	No later than 1 year after the date this Order is adopted and annually thereafter before June 30.	Order No. 01-182 allowed for this to be initially completed by August 2002. However, since this implementation of this requirement is continuing from the previous LA MS4 permit, implementation within a year is considered reasonable and the earliest practicable period for implementation. This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.8.k.ii	Public Agency Activities Program – Each Permittee shall train all of their employees and contractors in who use or have the potential to use pesticides or fertilizers.	No later than 1 year after the date this Order is adopted and annually thereafter before June 30.	This is consistent with the current Ventura County MS4 permit.
VI.D.9.b.ii	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee shall initiate investigation(s) to identify and locate the source of an illicit discharge.	Within 72 hours of becoming aware of the illicit discharge.	Order No. 01-182 and the current Ventura County MS4 permit require illicit discharge investigations be initiated within 1 business day. However, the 72 hour requirement takes into account the possibility of weekend spills.
VI.D.9.b.iv.(2)	Illicit Connections and Illicit Discharges Elimination Program – If the source of the illicit discharge	Within 30 days of such determination.	This ensures the ID is addressed in a reasonable period of time by the



Within an upstream jurisdiction, the Permittee shall notify the upstream jurisdiction and the Regional Water Board.       Notify the Regional Water Board within 30 days of such determination and provide a written plan for review and comment.       This ensures the Regi Water Board is effective discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, the Permittee shall work with the Regional Water Board to provide a diversion of the entire flow to the sanitary sewer or provide treatment.       Initiate investigation within 12 days of discharges Elimination Program Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation.       Initiate investigation within 180 days of completion of the completion of the investigation.         VI.D.9.c.iii (2)       Illicit Connections and Illicit Discharges Elimination Program Each Permittee, upon confirmation of an illicit MSA connection, shall eliminated.       Within 180 days of completion of the investigation.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.e.i.(2)       Illicit Connections and Illicit Discharges Elimination Program Initiate investigation of all public and employee illicit discharge and spill complaints.       Within 1 business day of receiving the complaint.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.e.i.(3)       Illicit Connections and Illicit Discharges Elimination Program Freesponse to spills for containment.       Within 4 hours of becoming aware of the spills occur on private property, in which case should be within 2 hou	Part Number	Requirement Summary	Timeframe	Basis for Timeframe
VI.D.9.b.v         Illicit Connections and Illicit Discharges Elimination Program – In the event the Permittee is unable to eliminate an ongoing Illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, the Permittee shall work with the Regional Water Board to provide a diversion of the entire flow to the sanitary sewer or provide treatment.         Initiate investigation within 12 days of discovery.         This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.           VI.D.9.c.iii         Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon cliscovery or upon receiving a report of a suspected illicit Connection, shall ensure that the connection is eliminated.         Mithin 180 days of completion of the investigation.         This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.           VI.D.9.e.i.(2)         Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation.         Within 180 days of completion of the investigation.         This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.           VI.D.9.e.i.(2)         Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation of all public employee illicit discharge and spill complaints.         Within 1 business day of receiving the complaint.         This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.           VI.D.9.e.i.(3)         Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.         Within 4 hours of becomin		Permittee shall notify the upstream jurisdiction and the Regional Water		upstream jurisdiction.
VI.D.9.c.ii       Illicit Connections and Illicit       Initiate investigation       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.c.iii.(2)       Illicit Connections and Illicit       Nithin 180 days of completion of the investigation.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.c.iii.(2)       Illicit Connections and Illicit       Within 180 days of completion of the investigation.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.e.i.(2)       Illicit Connections and Illicit       Within 1 business day of eciving the complaint.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.e.i.(2)       Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation of all public and employee illicit discharge and spill complaints.       Within 1 business day of the ceiving the complaint.       This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.         VI.D.9.e.i.(3)       Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.       Within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.       The requirement that to be responded to within hours of becoming aware of the such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.       The verture accur on private property is the earliest practicable period for implementa	VI.D.9.b.v	Illicit Connections and Illicit Discharges Elimination Program – In the event the Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, the Permittee shall work with the Regional Water Board to provide a diversion of the entire flow to the	Board within 30 days of such determination and provide a written plan for	This ensures the Regional Water Board is effectively engaged in the ultimate disposition of ongoing illicit discharges.
VI.D.9.c.iii.(2)Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon confirmation of an illicit MS4 connection, shall ensure that the connection is eliminated.Within 180 days of completion of the investigation.This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.VI.D.9.e.i.(2)Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation of all public and employee illicit discharge and spill complaints.Within 1 business day of receiving the complaint.This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.VI.D.9.e.i.(3)Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.Within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.The requirement that st property, in which case should be within 2 hours of gaining legal access to the property is the earliest practicable period for implementation and	VI.D.9.c.ii	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall	within 21 days of	This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.9.e.i.(2)Illicit Connections and Illicit Discharges Elimination Program – Initiate investigation of all public and employee illicit discharge and spill complaints.Within 1 business day of receiving the complaint.This is consistent with Order No. 01-182 and current Ventura Count MS4 permit.VI.D.9.e.i.(3)Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.Within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.The requirement that so be responded to within hours of becoming aware of the spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.	VI.D.9.c.iii.(2)	Illicit Connections and Illicit Discharges Elimination Program – Each Permittee, upon confirmation of an illicit MS4 connection, shall ensure that the connection is	completion of the	This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
VI.D.9.e.i.(3)Illicit Connections and Illicit Discharges Elimination Program – Response to spills for containment.Within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.The requirement that so be responded to within hours of becoming aw of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.The requirement that so be responded to within hours of becoming aw of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to the property.	VI.D.9.e.i.(2)	Discharges Elimination Program – Initiate investigation of all public and employee illicit discharge and spill		This is consistent with Order No. 01-182 and the current Ventura County MS4 permit.
water quality.	VI.D.9.e.i.(3)	Illicit Connections and Illicit Discharges Elimination Program –	becoming aware of the spill, except where such spills occur on private property, in which case should be within 2 hours of gaining legal access to	implementation and ensures the protection of
VI.D.9.f.iv         Illicit Connections and Illicit         At least twice during the         This requirement is ne           Discharges Elimination Program –         Each Permittee must create a list of         At least twice during the         and twice during the           pplicable staff and contractors         applicable and the         Discharges Elimination Program –         Discharges Elimination Program –	VI.D.9.f.iv	Discharges Elimination Program – Each Permittee must create a list of applicable staff and contractors which require IC/ID training and		This requirement is new and twice during the term of this Order is considered reasonable and the earliest practicable period
	VI.D.9.f.v		Within 180 days of	The current Ventura MS4



Part Number	Requirement Summary	Timeframe	Basis for Timeframe
Part Number	Requirement Summary <u>Discharges Elimination Program</u> – New Permittee staff members must be provided with IC/ID training.	Timeframe starting employment.	Basis for Timeframe permit specifies that within 1 year all employees must be trained. However, the requirement that employees be trained within 180 days of starting employment is the earliest practicable period for implementation and
			ensures the protection of water quality.

## 2. Progressive Enforcement

Progressive enforcement is a series of defined and reproducible enforcement actions whereby consequences of non-compliance increase with each incremental enforcement steps. Progressive enforcement includes procedures to coordinate enforcement between the Regional Water Board and Permittees. As the Regional Water Board is the agency responsible for implementing the NPDES program, it has the authority to step in when enforcement actions of Permittee are unsuccessful in bringing dischargers into compliance with the permit. As such, progressive enforcement is an effective strategy to achieve timely compliance with permit requirements. Order No. 01-182 included requirements for a progressive enforcement strategy that are carried over to this Order, with some modifications. This Order includes supplemental documentation requirements for site acreage and Risk Factor rating, when making a referral to the Regional Water Board for MS4 permit non-compliance of a discharger under the construction general permit. This requirement is necessary information for the Regional Water Board consideration. Moreover, this Order eliminates the provision within Order No. 01-182 that allows the Regional Water Board and Permittees to form a storm water task force. This provision was removed because the ability for coordinated enforcement between the Regional Water Board and Permittees is adequately established through remaining provisions within Part VI.D.2 of this Order.

#### 3. Modifications/Revisions

This Order requires each Permittee to modify its storm water management programs, protocols, practices, and municipal codes to be consistent with this Order. This provision is necessary to ensure that each Permittee takes all the steps necessary to update the core and ancillary programs that are required to ensure compliance with this Order. A significant change from Order No. 01-182 is that this obligation now rests with each individual Permittee rather than the Principal Permittee.

## 4. Public Information and Participation Program

#### a. Legal Authority

NPDES regulation 40 CFR section 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from MS4s associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities."

NPDES regulation 40 CFR section 122.26(d)(2)(iv)(B)(6) provides that the proposed management program include " A description of education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."

To satisfy the Public Education and Outreach minimum control measure, the Permittees need to implement a Public Information and Participation Program (PIPP) that has the following objectives: (1) measurably increase the knowledge of the target audiences about the MS4, the adverse impacts of storm water pollution of receiving waters and potential solutions to mitigate the impacts, (2) measurably change the waste disposal and storm water pollution generation behavior of target audiences by developing and encouraging implementation of appropriate activities, and (3) involve and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of storm water pollution.

# b. Background

Implementation of a PIPP is a critical BMP and a necessary component of a storm water management program. The State Water Board Technical Advisory Committee "recognizes that education with an emphasis on pollution prevention is the fundamental basis for solving nonpoint source pollution problems." The USEPA Phase II Fact Sheet 2.3 (Fact Sheet 2.3) finds that "An informed and knowledgeable community is critical to the success of a storm water management program since it helps insure the following: (i) greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important, and (ii) greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters."³¹

Furthermore, the public can provide valuable input and assistance to a municipal storm water management program and, therefore, should play an active role in the development and implementation of the program. An active and involved community is essential to the success of a storm water management program because it allows for:

³¹ Storm Water Phase II Final Rule - Public Education and Outreach Minimum Control Measure. USEPA Fact Sheet 2.3, January 2000.

- Broader public support since residents who participate in the development and decision making process are partially responsible for the program and, therefore, are more likely to take an active role in its implementation;
- Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of residents volunteers;
- A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
- A conduit to other programs as residents involved in the storm water program development process make important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a storm water program on a watershed basis.

## c. PIPP Implementation

It is generally more cost-effective to have numerous operators coordinate to use an existing program than each developing its own local programs. Therefore, Permittees are encouraged to participate in a County-sponsored PIPP or in one or more Watershed Group sponsored PIPPs supplemented with additional information specific to local needs.

Permittees are required to: (a) conduct storm water pollution prevention public service announcements and advertising campaigns; (b) provide public education materials on the proper handling or potential storm water pollutants; (c) distribute activity specific storm water pollution prevention public education materials to points of purchase; (d) maintain storm water websites or provide links to storm water websites via the Permittees website, which contain educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities; and (e) provide independent, parochial, and public schools within each Permittee's jurisdiction with materials, including, but not limited to videos, live presentations, and other information. Permittees are required to use effective strategies to educate and involve ethnic communities using culturally effective methods.

The intent of these changes is to provide an increase in public knowledge of storm water pollution prevention practices in an effective and cost efficient manner, while still providing flexibility for the Permittees to implement the requirements on a watershed group basis.

The Order requires outreach to ethnically diverse communities using culturally effective strategies. The USEPA, Tailoring Outreach Programs to Minority and Disadvantaged Communities and Children Fact Sheet finds that, "many residents of ethnically and culturally diverse communities don't speak English. English messages contained in public education outreach materials may not be effectively reaching a significant portion of some communities. The intent of this

provision is to encourage behavior changes that reduce pollutants in storm water to a portion of the population who might otherwise be overlooked.

### 5. Industrial/Commercial Business Program

### a. Legal Authority

The Phase I regulations require, in part, that the applicant: (i) develop adequate legal authority, (ii) perform a source identification, and (iii) develop a management program to reduce the discharge of pollutants to the MEP using management practices, control techniques and system design and engineering methods, and such other provisions which are appropriate. Specifically, with regards to industrial controls, the management plan shall include the following.

"A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system. The program shall:

- i. Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.
- **ii.** Describe a monitoring program for storm water discharges associated with industrial facilities [...]"
  - (40 CFR section 122.26(d)(2)(iv)(C))

The provisions contained in this Order pertaining to the inspection and facility control program requirements for industrial and commercial facilities, as well as construction sites (as discussed below in Part VI.7.b.) are also based on the requirements found in the previous permit, Order No. 01-182. Those requirements, among others, were the subject of litigation between several permittees and the Regional Water Board. In that case, the Los Angeles County Superior Court upheld the inspection and facility control program requirements for industrial/commercial facilities and construction sites in Order No. 01-182. The Court determined that "[t]he Permit contains reasonable inspection requirements for these types of facilities. [Citation.] The Permit requires each permittees to confirm that operators of these facilities have a current waste discharge identification number and is effectively implementing Best Management Practices (BMPs) in compliance with County and municipal ordinances, Regional Board Resolution 90-08 and the Stormwater Quality Management Plans (SQMPs). [Citation.] Addressing pollution after it has entered the storm sewer system is not working to meet legislative goals. More work is required at the source of pollution, and that is partially the basis on which this Court finds that the Permit's inspection requirements are reasonable, and not

onerous and burdensome." (*In re L.A. Cnty. Mun. Storm Water Permit Litig.,* No. BS 080548 (L.A. Super. Ct. Mar. 24, 2005), at 17.)

The Court also addressed the permittees' claims that the requirements in Order No. 01-182 shifted the Regional Water Board's inspection responsibility under State Water Board issued general NPDES permits for these types of facilities onto the local agencies. The Court disagreed, stating: "The Court agrees with [the Regional Water Board] and Intervenors that the United States EPA considered obligations under state-issued general permits to be separate and distinct. Despite the similarity between the general permits and the local storm water ordinances, both must be enforced. [Citations.] EPA requires permittees to conduct inspections of commercial and industrial facilities, as well as of construction sites. [Citation.].....This Court finds that the state-issued general permits do not preempt local enforcement of local storm water ordinances. (See State Board Order No. 99-08, [citation].) [¶] Therefore, this Court finds that requiring permittees to inspect commercial and industrial facilities and construction sites is authorized under the Clean Water Act, and both the Regional Board and the municipal permittees or the local government entities have concurrent roles in enforcing the industrial, construction and municipal permits. The Court finds that the Regional Board did not shift its inspection responsibilities to Petitioners. [¶] ... The Court further notes that the Permit issued to local entities, who are Petitioners here, does not refer to any inspection obligations related to state-issued permits. [Citation.] There is no duplication of efforts and no shifting of inspection responsibility in derogation of the Regional Board's responsibility here. The Regional Board is not giving up its won responsibilities, and there is nothing arbitrary or capricious about the Permit's inspection provisions." (*Id.* at 17-18.)

It is also important to note that similar controls for industrial/commercial facilities and constriction sites, including inspection activities, required by this Order were also required in the 2002 San Bernardino County MS4 permit issued by the Santa Ana Regional Water Quality Control Board (Santa Ana Regional Water Board). Like Order No. 01-182, that permit was also subject to litigation. In that case, the City of Rancho Cucamonga claimed that the Santa Ana Regional Water Board improperly delegated to it and other permittees the inspection duties of the State and Regional Water Boards and that it was being required to conduct inspections for facilities covered by other state-issued general NPDES permits. (City of Rancho Cucamonga v. Regional Water Quality Control Board- Santa Ana Region (2006) 135 Cal.App.4th 1377, 1389.)Like the Los Angeles County Superior Court, the California Court of Appeal rejected this argument. The Court of Appeal upheld the Santa Ana Regional Water Board's requirements, finding that "Rancho Cucamonga and the other permittees are responsible for inspecting construction and industrial sites and commercial facilities within their jurisdiction for compliance with and enforcement of local municipal ordinances and permits. But the Regional Board continues to be responsible under the 2002 NPDES permit for inspections under the general permits. The Regional Board may conduct its own inspections but permittees must still enforce their own laws at these sites. (40 C.F.R. § 122.26, subd. (d)(2) (2005).)" (Id. at 1390.)

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#### b. Background

Municipalities are required to control the storm water discharges associated with industrial activities and other commercial facilities identified as significant contributors of pollutants through the implementation of a mandatory baseline minimum set of source control BMPs; performance of an inspection program to verify the adequacy of BMPs implementation in the field and compliance with the municipal ordinances; and assist the Regional Water Board in ensuring that industrial activities subject to regulations are covered by the general industrial stormwater permit. Regional Water Board will also assist the municipal ordinances and state and federal laws and regulations.

The municipality is ultimately responsible for discharges from the MS4. Because industrial awareness of the program may not be complete, there may be facilities within the MS4 area that should be permitted under an industrial storm water permit but are not (non-filers). In addition, the Phase I regulations that require industries to obtain permit coverage for storm water discharges is largely based on Standard Industry Classification (SIC) Code. This has been shown to be incomplete in identifying industries that may be significant sources of storm water pollution ("industries" includes commercial businesses). The word "industries" is used in a broad sense. Another concern is that the permitting authority may not have adequate resources to provide the necessary oversight of permitted facilities. Therefore, it is in the municipality's best interest to assess the specific situation and implement an industrial/commercial inspection/site visit and enforcement program to control the contribution of pollutants to the MS4 from all high risk sources.

In the preamble to the 1990 regulations, USEPA clearly states the intended strategy for discharges of storm water associated with industrial activity:

"...Municipal operators of large and medium municipal separate storm sewer systems are responsible for obtaining system-wide or area permits for their system's discharges. These permits are expected to require that controls be placed on storm water discharges associated with industrial activity which discharge through the municipal system." The USEPA also notes in the preamble that "... municipalities will be required to meet the terms of their permits related to industrial dischargers."

Similarly, in the USEPA's Guidance Manual (Chapter 3.0), USEPA specified that MS4 applicants must demonstrate that they possess adequate legal authority to:

- i. Control construction site and other industrial discharges to MS4s;
- ii. Prohibit illicit discharges and control spills and dumping;
- iii. Carry out inspection, surveillance, and monitoring procedures.

The document goes on to explain that "control," in this context means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4. Further, to satisfy its permit conditions, a municipality may need to impose additional requirements on discharges from permitted industrial facilities, as well as discharges from industrial facilities and construction sites not required to obtain permitts.

In the same Guidance Manual (Chapter 6.3.3), USEPA states that the municipality is ultimately responsible for discharges from their MS4. Consequently, the MS4 applicant must describe how the municipality will help the USEPA and authorized NPDES States to:

- i. Identify priority industries discharging to their systems;
- **ii.** Review and evaluate storm water pollution prevention plans (SWPPPs) and other procedures that industrial facilities must develop under general or individual permits;
- **iii.** Establish and implement BMPs to reduce pollutants from these industrial facilities (or require industry to implement them); and
- iv. Inspect and monitor industrial facilities discharging storm water to the municipal systems to ensure these facilities are in compliance with their NPDES storm water permit, if required.

## c. Industrial/Commercial Business Program Implementation

The requirements in this Order clarify the scope and frequency of inspections. For commercial facilities, in general, frequencies have modified to require inspections of a facility twice during the five year permit tem provided that the first mandatory compliance inspection takes place no later than two years after the date this Order is adopted with a minimum interval of six months between the first and second inspection. The scope of the inspections for each of the facility types was clarified by specifying in tables what BMPs should be implemented at that facility to ensure that pollutant generating activity does not occur. The tables include a range of BMPs that are anticipated to be needed at select industrial and commercial facilities. The BMP categories are based on BMPs identified in the 2003 California Stormwater BMP Handbook, Industrial and Commercial as well as BMPs identified in Regional Water Board Resolution No. 98-08.

For industrial facilities, an initial mandatory compliance inspection must be completed at all industrial facilities no later than 2 years after the date this Order is adopted. If after the initial inspection, the facility was determined to as having exposure of industrial activities to storm water then the permit requires a second mandatory compliance inspection with a minimum interval of 6 months between the first and second mandatory compliance inspection. For facilities determined not to have exposure of industrial activities to storm water during the initial inspection, Permittees must conduct second compliance inspections yearly at a minimum of 20% of the facilities.

A provision was added to the Order relieving Permittees of the responsibility to inspect industrial facilities that the Regional Water Board has inspected within the previous 24 months.

In regards to the level of inspection, this Order clarifies that the Permittees are expected to check during inspections for a current Waste Discharge Identification (WDID) number for facilities discharging storm water associated with industrial activity, and that a SWPPP is available on site or that the owner/operator of the facility has applied for and has a current No Exposure Certification (and WDID number). In addition Permittees are expected to check during inspections for compliance with the implementation of minimum BMPs, as previously approved by Board Order 98-08, and compliance with the local storm water ordinances.

The inspection requirements in this Order provide greater clarification concerning the scope of enforcement. A progressive enforcement procedure was outlined including minimum steps that Permittees must take in their program to enforce their municipalities' storm water requirements. In recognition of some of the Permittees concerns regarding the resource intensive efforts needed to elevate enforcement actions, a mechanism was provided through which Permittees can refer cases to the Regional Water Board, and for violations of the State Water Board's General Industrial Activities Storm Water NPDES permit, the referral can be expedited, referral can occur after a single inspection and one written notice rather than referral after two inspections and two written notices.

# 6. Planning and Land Development Program

### a. Legal Authority

The permit application requirements described in 40 CFR section 122.26(d) have formed the basis for MS4 permits and remain applicable as elements in a storm water program. 40 CFR section 122.26(d)(2)(iv), requires in part, that the large and medium MS4 system applicant develop a management plan. Specifically, with regards to planning and land development and post-construction controls, the management plan shall include the following:

"(A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:

(1) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers;

(2) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed.

(3) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems

(4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible."

# b. Background

Land development and urbanization have been linked to the impairment of aquatic life beneficial uses in numerous studies. Poorly planned new developments and re-development have the potential to impact the hydrology of the watershed and the water quality of the surface waters. Development without proper controls, often result in increased soil compaction, changes in vegetation and increased impervious surfaces. These conditions may lead to a reduction in groundwater recharge and changes in the flow regime of the surface water drainages. Historically, urban development has resulted in increased peak stream flows and flow duration, reduced base flows, and increased water temperatures. Pollutant loading in storm water runoff often increases due to post-construction use and because the storm water runoff is directly connected to the storm drain system or to the surface water body, without the benefit of filtration through soil and vegetation.

In a natural water body (i.e., a water body that has not been armored for flood control or channel stability), increased peak flows and flow duration can cause stream bank erosion, changes in channel geomorphology and bed sediment composition and stability.

When development infringes upon natural riparian buffers, the additional impacts may include further stream bank instability, increased nitrogen loadings to the water body—which would have been intercepted by native riparian vegetation, loss of shading resulting in further increase in water temperature, and a loss of woody debris and leaf litter, which provide food and habitat for some aquatic species.

Low Impact Development (LID) strategies are designed to retain storm water runoff on-site by minimizing soil compaction and impervious surfaces, and by disconnecting storm water runoff from conveyances to the storm drain system. This Order establishes criteria for the volume of storm water to be retained on-

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site as required to meet water quality goals and to preserve pre-development hydrology in natural drainage systems.

In California, hydromodification studies have focused on the erosive effects of storm water runoff flows and the resulting changes in geomorphology and bed sediment. As described in Hawley et al., southern California streams may be especially susceptible to geomorphic changes due to steep topography, flashy flow regimes, high sediment loads and largely non-resistant stream bed material. This recent study assessed the impact of urbanization on peak flow and the duration of lower flows capable of moving bed sediment. The results of the study showed that, urbanization resulted in proportionally-longer durations of all geomorphically-effective flows, with a more pronounced effect on the durations of low to moderate flows.

A study performed by United States Geological Survey (USGS) researchers at nine different metropolitan areas within the United States, found that adverse impacts to macroinvertebrate benthic communities were observed in drainages with 5 percent impervious area. The authors concluded that there appears to be no percent impervious area threshold below which benthic communities are not adversely impacted

The Grand River (lower) Surrogate Flow Regime Total Maximum Daily Load (TMDL), prepared for the Ohio Environmental Protection Agency (OEPA), examined the impacts of impervious cover and flow regime changes on aquatic life beneficial uses. The TMDL was approved by USEPA on April 12, 2012. The TMDL analysis showed that aquatic community health (as measured by biological indices) decreased as impervious cover increased. Flow alteration and impervious cover were determined to be the stressors impairing aquatic life. Riparian buffers were identified as a mitigating factor. Peak flow, runoff volume, and flashiness were considered as surrogates. However, for this watershed, flow regime was selected because it addresses the full spectrum of flow conditions (i.e., peak flow and flow duration and base flow). In this watershed, low flow and increased water temperature presented a threat to cold-water fish species. Increased peak flow and flow duration were linked to impairment of aquatic life beneficial uses due to increased pollutant loading and the impact of channel scouring. A flow duration curve was developed for a reference watershed, based on unit area to allow for comparison of varying-sized streams. The criteria for selecting the reference watershed were: (1) the water body was fully supporting aquatic life beneficial uses, (2) location (ecoregion), (3) size (4) land cover (5) riparian buffer and (6) soils. The flow regime TMDL compares flow duration curves for the impaired stream and the reference stream. The TMDL is expressed as the difference between the impaired stream's flow and the reference stream's flow during all flow conditions. The TMDL report recommends protection strategy numeric targets of no more than 6 percent EIA with a forested (70 percent coverage) riparian buffer of 100 feet from the top of each stream bank (200 feet total).

In Los Angeles County, development has infringed upon or eliminated natural riparian buffers and existing development exceeds recommended percent impervious area in many watersheds. In addition, many water bodies have been armored or converted to engineered channels to manage flood hazards. Because of the hydrologic differences between engineered channels and natural water bodies, the Regional Water Board approaches each situation differently. Where development occurs in drainages to water bodies that have been converted to engineered channels, the Regional Water Board's regulatory approach is designed to reduce storm water runoff -- the most effective method for reducing pollutant loading. Alternatively, where development occurs in drainages to natural water bodies, the Regional Water Board regulatory approach aims to reduce pollutant loading conveyed by storm water runoff and to preserve or restore the pre-development hydrology. As a result of past development, it is likely that retrofitting of existing development will be necessary to restore watershed hydrology to pre-development conditions.

### c. Applicability

New development and re-development projects subject to these requirements are described in Part VI.D.6.b. of this Order. Although not defined for large and medium MS4s, 40 CFR section 122.34 requires programs for small MS4s to include all projects that disturb an area equal to or greater than 1 acre of land and add more than 10,000 square feet of impervious surface area. The list of new development projects subject to requirements, specified in this Order in Parts VI.D.1.c.i(1)(a) through (k) were either carried over from Order No. 01-182 or were developments and redevelopments in this Order. Clarification is provided for developments in progress during formulation of this Order (Part VI.D.c.i(1)(4)).

New development/re-development projects are subject to either the Water Quality/Flow Reduction Resource Management Criteria in Part VI.D.6.c.i or potentially more stringent Hydromodification (Flow/ Volume/ Duration) Control Criteria. Note that hydromodification controls apply only to projects that drain to a natural water body that is a stream, creek or a river. Hydromodification controls do not apply to discharges to lakes, estuaries, or to the ocean, which are not susceptible to channel erosion.

i. Integrated Water Quality/ Flow Reduction /Resources Management Criteria (Part VI.D.6.c.i). Projects located in drainages to water bodies that are now engineered channels are subject to Integrated Water Quality/Flow Reduction/Resources Management Criteria. These projects must be designed to minimize the footprint of the impervious area and to use low impact development (LID) strategies to disconnect the runoff from impervious area. The project must be designed to retain on-site the storm water runoff equal to the storm water quality design volume (SWQDv), unless it is determined that it is technically infeasible or there is an opportunity to contribute to an off-site regional ground water replenishment project. The SWQDv is defined as the storm water runoff resulting from either:

- the 0.75 inch per 24 hour storm or
- the 85th percentile storm as defined in the Los Angeles County 85th percentile, 24-hour storm isohyetal map, whichever is greater.

This Order establishes a minimum design volume based on the 0.75 inch, 24hour storm event as defined in the previous Los Angeles County MS4 permit (Order No. 01-182). This requirement is to prevent backsliding from the previous Order. The 85th percentile storm is the design storm used throughout most of the State of California for storm water treatment and LID BMPs designed for water quality protection.

Using detailed local rainfall data, the County of Los Angeles Hydrologist has developed the 85th percentile storm event isohyetal map, which exhibits the size of the 85th percentile storm event throughout Los Angeles County. Since this map uses detailed local rainfall data, it is more accurate for calculating the 85th percentile storm event than other methods which were included in Order No. 01-182. The other methods found in Order No. 01-182 were included as options to be used in the event that detailed accurate rainfall data did not exist for various locations within Los Angeles County. Therefore, they have not been carried over into this Order.

Storm water runoff may be retained on-site by methods designed to intercept rain water via infiltration, bioretention, and harvest and use. Examples of LID Best Management Practices (BMPs) that may be employed to meet the storm water retention requirements include rain gardens, bioswales, pervious pavement, green roofs, and rainwater harvesting for use in landscape irrigation.

- ii. Alternative Compliance for Technical Infeasibility or Opportuntity for Regional Ground Water Replenishment (Part VI.D.6.c.ii). This Order defines conditions that may make on-site retention of the SWQDv technically infeasible. These conditions include measures to:
  - Ensure that on-site soils (*in-situ* or amended) have adequate infiltration rates for successful operation of infiltration BMPs,
  - Protect groundwater and drinking water wells from contamination,
  - Prevent infiltration that might exacerbate potential geotechnical hazards,
  - Accommodate smart growth and infill or redevelopment.

A determination that compliance with the Integrated Water Quality/Flow Reduction/Resources Management Criteria is technically infeasible at the New Development/Re-development project site must be based on a sitespecific hydrologic assessment or design analysis conducted and endorsed by a registered professional engineer, geologist, architect or landscape architect. This requirement is the same as contained in the Ventura County MS4 permit, and is necessary to ensure that a competent determination is conducted.

The criteria for technical infeasibility contained in Part VI.D.6.c.ii(2)(a) is necessary to ensure that the *in-situ* soil has adequate permeability to accommodate infiltration, and to ensure against premature failure of infiltration BMPs. A minimum infiltration rate of 0.15 inches per hour under saturated conditions is specified for infiltration BMPs (e.g., dry well, pervious pavement). Infiltration BMPs are restricted to Hydrologic Soil Groups A and B, by other California storm water regulatory agencies. For example, the Contra Costa County Program's Stormwater LID Design Guidebook prohibits routing storm water runoff to a dry (infiltration) well, developed in Hydrologic Soil Groups C and D³². Infiltration rates for the lower permeability B soil group ranges between 0.30 and 0.15 inches per hour (USEPA, 2009, Appendix A)³³. This criterion is specified to ensure the viability of infiltration systems, which may be depended upon to meet the storm water design volume criteria.

Infiltration BMPs are distinguished from bioretention BMPs, which may be implemented in all soils types. Bioretention BMPs are constructed using a manufactured/imported media that must meet strict specifications. The media specification for bioretention facilities is the same as specified for biofiltration systems. The difference between bioretention and biofiltration is that biofiltration systems are designed with an underdrain, which may allow for the discharge of a significant portion of the design storm volume, as described below under Alternative Compliance Measures. Bioretention BMPs may not include an underdrain.

The criteria for determining Technical Infeasibility described in Part VI.D.6.c.ii.(2)(b)-(f) are the same as contained in the Ventura County MS4 permit, except that (2)(b) "locations where seasonal high ground water is *within 5 feet of the surface*", was expanded to" 5 to 10 feet" of the surface, to be consistent with local LID Manuals developed by the City of Santa Monica and the City of Los Angeles.

**iii.** Alternative Compliance Measures (Part VI.D.6.c.iii.). This Order provides equally weighted alternatives to on-site retention of the SWQDv. One alternative is to employ infiltration at off-site locations, including regional groundwater replenishment projects. In an effort to promote retrofitting of existing development, alternative compliance measures may include the use of infiltration, bioretention, rainfall harvest and/or biofiltration at an existing development with similar land uses and where storm water runoff is expected to exhibit pollutant event mean

³² Contra Costa County Clean Water Program. 2010. Stormwater C.3 Guidebook, Stormwater Quality Requirements for Development Applications. Fifth Ed. October 20, 2010. p. 18. < www.cccleanwater.org>.

³³ USEPA. 2009. (United States Environmental Protection Agency). Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy and Independence and Security Act. Office of Water. December 2009.

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concentrations (EMCs) that are comparable to or higher than the proposed new development re-development project. As another alternative the project proponent may comply with the Integrated Water Quality/Flow Reduction/Resources Management Criteria using biofiltration on the project site. The volume of storm water to be treated with biofiltration is 1.5 times the difference between the SWQDv and the volume of storm water runoff that can be reliably retained on the project site. The 1.5 multiplier is based on the finding in the *Ventura County Technical Guidance Manual* that biofiltration of 1.5 times the design volume will provide approximately the same pollutant removal as retention of the design volume on an annual basis.³⁴

The volume of storm water runoff to be intercepted at an off-site mitigation project is equal to the difference between the SWQDv and the volume of storm water runoff that can be *reliably retained* on the project site. The estimate of the volume that can be reliably retained on-site shall be based on conservative assumptions including permeability of soils under saturated conditions. When rainfall harvest and use is linked to irrigation demand, the demand shall be estimated based on conditions that exist during the wet weather, winter season.

Mitigation at off-site projects shall be designed to provide equal or greater water quality protection to the surface waters within the same subwatershed as the proposed project. Preferably, the mitigation site will be located within the same Hydrologic Unit Code (HUC)-12 drainage area as the proposed new development or re-development. However, the mitigation project may be located within the expanded HUC-10 drainage area, if approved by the Executive Officer of the Regional Water Board.

As described in the Ventura County Technical Guidance Manual, a biofiltration system as defined in this Order, including Attachment L, allows for incidental interception of approximately 40 percent of the treatment volume and treatment of the remaining volume through filtration, and aerobic and anaerobic degradation. The effectiveness of the biofiltration system is greatly impacted by the volume of storm water runoff that is intercepted through incidental infiltration. For this reason, biofiltration as defined in this Order, does not include flow-through planter box or vault type systems with impervious bottom layers. In addition, biofiltration systems as defined in this Order, must meet the specifications for drain placement and planting media provided in Attachment L if they are to be credited as meeting the water quality/flow reduction requirements of the Alternative Compliance Measures of this Order. Attachment L provides a compilation of recent information contained in the Contra Costa County C3 Guidebook and Order R2-2011-083, adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November

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³⁴ Ventura Countywide Stormwater Management Program. 2011. Ventura Technical Guidance Manual, Manual Update, 2011. Appendix D. July 13, 2011.

28, 2011. These specifications are based on experiences in the San Francisco Bay Region and are designed to ensure optimum pollutant removal and to prevent premature failure of infiltration components of the biofiltration system.

- iv. Water Quality Mitigation Criteria (Part VI.D.6.c.iv.) When off-site mitigation is performed, the storm water runoff from the project site must be treated prior to discharge. Volume-based treatment BMPs are to be sized to treat the runoff from the 85th percentile, 24-hour storm event, as described above for storm water retention BMPs. Flow through treatment BMPs are to be sized based on a rainfall intensity of 0.2 inches per hour or the one year, one-hour rainfall intensity as determined from the Los Angeles County isohyetal map, whichever is greater. A minimum flow design of 0.2 inches per hour is consistent with Order No. 01-182 and is included to prevent back sliding. The one year, one-hour rainfall intensity is the flow requirement specified in the Los Angeles River Trash Total Maximum Daily Loads (TMDL) and other Trash TMDLs established in the Region. The Los Angeles County isohyetal map of the one-year, one-hour storm intensity provides an accurate measure of variable storm intensity throughout the County. The one-year, one-hour rain intensity within the County ranges from approximately 0.2 inch/hour to 1.1 inches per hour.
- v. Hydromodification (Flow/ Volume/ Duration Control Criteria (Part VI.D.6.v.). New development/re-development projects located in a drainage to a natural stream/creek/river water body shall be required to meet the water quality/flow reduction criteria and/or hydromodification control criteria, whichever are more stringent. (Hydromodification controls do not apply to discharges to lakes, estuaries or to the Pacific Ocean as these types of water bodies are not susceptible to hydromodification impacts.) This Order provides Interim Hydromodification Control Criteria to be employed until the State Water Board or Regional Water Board adopts a final Hydromodification Policy. The purpose of the hydromodification controls is to preserve or restore pre-development hydrology.

Part VI.D.6.v.(b) of this Order describes New Development/Redevelopment projects that are exempted from hydromodification controls. These projects include maintenance and replacement activities and other projects that do not increase EIA within the subwatershed and therefore are not expected to add to the hydromodification effects. Also exempted are projects located within drainages to waterbodies that are not susceptible to channel erosion or other hydromodification effects.

This Order anticipates the issuance of a State-wide Hydromodification criteria or guidance within the term of this Order, but provides interim criteria for New Development/Re-development projects that are permitted pending the issuance of State-wide Guidance. This Order also identifies

preliminary tasks to be conducted within 24 months after the effective date of this Order. The results of these preliminary tasks will support the development of a final Subwatershed Hydromodification Plan. The final Subwatershed Hydromodification Plan must be completed within 12 months after the issuance of the State-wide Guidance, unless the compliance period is extended by the Executive Officer of the Regional Water Board.

This Order offers three options for meeting the interim hydromodification controls for projects that will disturb greater than 1 acre but less than 50 acres:

- The project is designed to retain the storm water runoff from the 95th percentile, 24-hour-hour storm. This criterion is based on the recommendations from the USEPA's *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (USEPA, 2009).
- The runoff flow rate, volume, velocity and duration does not exceed the pre-development condition for the 2-year, 24-hour rainfall event. Research has determined that the maximum point of the effective work curve occurs in the 1 to 2-year frequency (Leopold, 1964, as cited in the South Orange County Hydromodification Plan, 2011)³⁵. Furthermore, the effects of development are greatest during smaller storm events. Under natural conditions, the storm water runoff from smaller storms would have been largely intercepted by vegetation, canopy, infiltration and/or evapotranspiration. During large storms, the soils become saturated and runoff occurs even under natural conditions.
- The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by the Hydromodification Analysis Study and the Equation presented in Attachment J. This provision is the same as the requirement in the Ventura County MS4 permit (Order No. R4-2010-0108). By maintaining an Ep of approximately 1, the bed sediment of the channel is in an equilibrium state.

For projects disturbing more than 50 acres, compliance with the interim controls may be achieved by similar means. However, the plans must be supported by more comprehensive hydrologic modeling.

The elements of the Interim Subwatershed Hydromodification Plan are:

³⁵ South Orange County. 2011. South Orange County Hydromodification Management Plan. < <u>http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/docs/oc_permit/updates_031212/South_Orange</u> <u>County%20HMP.pdf</u> > Accessed April 25, 2012.

- Screening to assess which subwatersheds exhibit changes in geomorphology.
- Identify natural drainage systems within the subwatershed that are susceptible to hydromodification impacts,
- Identify areas critical to the hydrology (e.g., groundwater recharge areas, riparian buffers and wetlands) of the subwatershed and identify potential protection strategies for such areas,
- Conduct or access bioassessment monitoring data to assess whether aquatic life uses are being fully supported,
- Prepare preliminary protection strategies for subwatersheds that are fully supporting aquatic life beneficial uses,
- Prepare preliminary retrofit strategies for subwatersheds that exhibit the effects of hydromodification and are not fully supporting aquatic life beneficial uses,
- Identify candidate reference sub-watersheds that are supporting aquatic life beneficial uses and develop a flow duration curve that may serve as a standard for flow duration controls in water bodies that have aquatic life impairments linked to changes in the flow regime. This approach is as described in the recently approved OEPA, Grand River (lower) Flow Regime TMDL.

# 7. Development and Construction Program

### a. Introduction

Soil disturbing activities during construction and demolition exacerbate sediment losses. Sediment is a primary pollutant impacting beneficial uses of watercourses. Sediments, and other construction activity pollutants must be properly controlled to reduce or eliminate adverse impacts.

# b. Legal Authority

40 CFR section 122.34(b)(4) states that with respect to construction site storm water runoff control for small MS4s, which is analogous to that for large MS4s:

"(i) [the permittee] must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with § 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites. (ii) Your program must include the development and implementation of, at a minimum: (A)

An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law; (B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices; (C) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality; (D) Procedures for site plan review which incorporate consideration of potential water quality impacts; (E) Procedures for receipt and consideration of information submitted by the public, and (F) Procedures for site inspection and enforcement of control measures."

The inspection requirements for construction sites contained in this Order are also based on the requirements found in Order No. 01-182. As noted above in Part VI.C.5.a, the inspection requirements contained in Order No. 01-182 for construction sites were the subject of litigation between several permittees and the Regional Water Board. As provided in more detail above, the Los Angeles County Superior Court upheld the inspection requirements for industrial/commercial facilities and construction sites in Order No. 01-182, finding that the "[t]he Permit contains reasonable inspection requirements for these types of facilities." (In re L.A. Cnty. Mun. Storm Water Permit Litig., No. BS 080548 (L.A. Super. Ct. Mar. 24, 2005), at 17.) As also noted above, the Superior Court also rejected the permittees' claims that the requirements in Order No. 01-182 shifted the Regional Water Board's inspection responsibility under State Water Board issued general NPDES permits for these types of facilities onto the local agencies, finding that "[r]equiring permittees to inspect commercial and industrial facilities and construction sites is authorized under the Clean Water Act, and both the Regional Board and the municipal permittees or the local government entities have concurrent roles in enforcing the industrial, construction and municipal permits. The Court finds that the Regional Board did not shift its inspection responsibilities to Petitioners." (Id. at 17-18.)

### c. Construction Activity Applicability

Any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre.

Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale of one or more acres of disturbed land surface.

Construction activity related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to USEPA regulations, such as dairy barns or food processing facilities.

Construction activity associated with linear underground/overhead project (LUPs) including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but are not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.

Storm water discharges from dredge spoil placement that occur outside of U.S. Army Corps of Engineers jurisdiction³⁶ (upland sites) and that disturb one or more acres of land surface from construction activity are covered by this General Permit. Construction projects that intend to disturb one or more acres of land within the jurisdictional boundaries of a CWA section 404 permit should contact the appropriate Regional Water Board to determine whether this permit applies to the project.

# d. Development Construction Program Implementation

Permittees must implement a construction program that applies to all activities involving soil disturbance with the exception of agricultural activities. Minimum requirements have been established for construction activity less than one acre and for those activities equal or greater than one acre. Activities covered by the permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving, and LUPs. The construction program should be designed to: (1) prevent illicit construction-related discharges of pollutants into the MS4 and receiving waters; (2) implement and maintain structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites; (3) reduce construction site discharges of pollutants to the MS4 to the MEP; and (4) prevent construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

³⁶ A construction site that includes a dredge and/or fill discharge to any water of the United States (e.g., wetland, channel, pond, or marine water) requires a permit from the U.S. Army Corps of Engineers pursuant to CWA section 404 and a Water Quality Certification from the Regional Water Board or State Water Board pursuant to CWA section 401.

Each permittee shall use an site system to track grading permits, encroachment permits, demolition permits, building permits, or construction permits (and any other municipal authorization to move soil and/ or construct or destruct that involves land disturbance) issued by each permittee. To satisfy this requirement, the use of a database or GIS system is recommended.

For construction activity equal or greater than one acre, the Permittee must establish review procedures for construction site plans to determine potential water quality impacts and ensure the proposed controls are adequate. These procedures should include the preparation and submission of an Erosion and Sediment Control Plan (ESCP) containing elements of a Storm Water Pollution Prevention Plan (SWPPP) prior to issuance of a grading or building permit as well as a review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. The requirement that ESCP/SWPPPs must be developed by a Qualified SWPPP Developer (QSD) is new for this iteration of the permit. This requirement ensures the development of high quality ESCP/SWPPPs that protect water quality to the MEP.

A SWPPP must be appropriate for the type and complexity of a project and will be developed and implemented to address project specific conditions. Some projects may have similarities or complexities, yet each project is unique in its progressive state that requires specific description and selection of BMPs needed to address all possible generated pollutants. The Permittee must ensure that construction site operators select and implement appropriate erosion and sediment control measures to reduce or eliminate the impacts to receiving waters. To help guide their Construction Program and ensure consistency regarding BMP selection, the Permit requires the Permittee to develop or adopt BMP standards for a range of construction related activities. The list of activities is based on California Stormwater Quality Association's (CASQA) Construction BMP handbook. The ESCP/SWPPP must include the rationale used for selecting or rejecting BMPs. The project architect, or engineer of record, or authorized qualified designee, must sign a statement on the ESCP/SWPPP to the effect:

"As the architect/ engineer of record, I have selected, appropriate BMPs to effectively minimize the negative impact of the project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity."

The Permittee is responsible for conducting inspection and enforcement of erosion and sediment control measures at specified times and frequencies during construction including prior to land disturbance, during grading and land development, during streets and utilities activities, during vertical construction, and during final landscaping and site stabilization. The Permittees' Municipal Inspectors must be adequately trained and Permittees are encouraged to offer opportunities for inspectors to enroll in the State Water Board sponsored Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner (QSP)

certification program. A progressive enforcement policy has been integrated into this iteration of the permit to ensure that adequate penalties are in place and to ensure the protection of receiving water quality.

Prior to approving and/ or signing off for occupancy and issuing the Certificate of Occupancy for all construction projects subject to post-construction controls, each permittee shall inspect the constructed site design, source control and treatment control BMPs to verify that they have been constructed in compliance with all specifications, plans, permits, ordinances, and this Order. The initial/ acceptance BMP verification inspection does not constitute a maintenance and operation inspection.

The Permittee must ensure that staff has proper training. In addition, the Permittee must develop and distribute training and educational material and conduct outreach to the development community. To ensure that the construction program is followed, construction operators must be educated about site requirements for control measures, local storm water requirements, enforcement activities, and penalties for non-compliance.

### 8. Public Agency Activities Program

### a. Background

Publically-owned or operated facilities serve as hubs of activity for a variety of municipal staff from many different departments. Some municipalities will have one property at which all activities take place (e.g., the municipal maintenance yard), whereas others will have several specialized facilities such as animal control facilities, chemical storage facilities, composting facilities, equipment storage and maintenance facilities, fueling facilities, hazardous waste disposal facilities, incinerators, landfills, materials storage yards, pesticide storage facilities, public buildings, public parking lots, public golf courses, public swimming pools, public parks, public marinas, recycling facilities, solid waste handling and transfer facilities, and flood control facilities.

### b. Program Implementation

# i. Public Construction Activities Management

The Permittee is required to implement BMPs and comply with the Planning and Land Development Program requirements in Part VI.D.6 of this Order and the Development Construction Program requirements in Part VI.D.7 of this Order at applicable Permittee-owned or operated (i.e., public or Permittee sponsored) construction projects. These requirements ensure that Permittee-owned or operated construction and development occurs in an equally protective manner as private development. The Permittee is also required to implement an effective combination of erosion and sediment control BMPs from Table 13 (see Construction Development Program, minimum BMPs) at those public sites that disturb less than one acre of soil. Last, the Permittee is required to obtain separate coverage under the State

Water Board's Construction General NPDES Permit for all Permittee-owned or operated construction sites that require coverage.

## ii. Public Facility Inventory

A comprehensive list of publically-owned or operated facilities will help staff responsible for storm water compliance build a better awareness of their locations within the MS4 service area and their potential to contribute storm water pollutants. The inventory should include information on the location, contact person at the facility, activities performed at the facility, and whether the facility is covered under an industrial general storm water permit or other individual or general NPDES permit, or any applicable waivers issued by the Regional or State Water Board pertaining to storm water discharges. Incorporation of GIS into the inventory is encouraged. The facility inventory should be updated at least twice during the permit term and will serve as a basis for setting up periodic facility assessments and developing, where necessary, facility storm water pollution prevention plans. By developing an inventory of Permittee-owned facilities that are potential sources of storm water pollution helps to ensure that these facilities are monitored and receiving water quality is protected.

### iii. Inventory of Existing Development for Retrofitting Opportunities

Each Permittee is required to maintain an updated inventory of all Permittee-owned or operated (i.e., public) facilities within its jurisdiction that are potential sources of storm water pollution. This requirement is similar to the requirement of Order No. 01-182. In this Order, the incorporation of facility information into a GIS is recommended as this has been proven effective for effectively inventory and management of facilities and associated BMPs. Given that facility operation, condition, and practices can change over a five year period, the Permittees are required to update its inventory at least twice during the term of this Order.

In addition to developing an inventory of publically-owned or operated facilities, in this Order, Permittees are required to develop an inventory of existing development for retrofitting opportunities. The intention of adding this requirement to the permit is to encourage the use of retrofit projects that reduce storm water pollutants into the MS4 that are a result of impacts from existing development. Permittees are also required to evaluate and rank these retrofitting opportunities.

### iv. Public Agency Facility and Activity Management

Each Permittee is required to manage its facilities in accordance with the State Water Board's Industrial General NPDES Permit, where applicable, and shall ensure the implementation and maintenance of appropriate BMPs at all facilities with a potential to pollute stormwater. Therefore, Permitees shall obtain separate coverage under the State Water Board's Industrial General NPDES Permit for all Permittee-owned or operated facilities where

industrial activities are conducted that require coverage under the Industrial General NPDES Permit and shall implement and maintain activity specific BMPs listed in Table 19 (BMPs for Public Agency Facilities and Activities).

Many municipalities use third-party contractors to conduct municipal maintenance activities in lieu of using municipal employees. Contractors performing activities that can affect storm water quality must be held to the same standards as the Permittee. Not only must these expectations be defined in contracts between the Permittee and its contractors, but the Permittee is responsible for ensuring, through contractually-required documentation or periodic site visits, that contractors are using storm water controls and following standard operating procedures. Therefore, the Permittee shall ensure all contractors hired by the Permittee to conduct Public Agency Activities including, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair shall be contractually required to implement and maintain the activity specific BMPs listed in Table 18.

## v. Vehicle and Equipment Washing

Specific BMPs for all fixed vehicle and equipment washing; including fire fighting and emergency response vehicles have been incorporated into this Order and must be implemented. In addition, specific BMPs for wash waters from vehicle and equipment washing. These requirements effectively prohibit the occurrence of illicit discharges resulting from unauthorized washing activities.

# vi. Landscape, Park, and Recreational Facilities Management

Specific BMPs for public right-of-ways, flood control facilities and open channels, lakes and reservoirs, and landscape, park, and recreation facilities and activities have been included this Order, similar to those in Order No. 01-182 and the more recently adopted Ventura County MS4 Permit, and must be implemented. These requirements are reflective of current environmentally responsible practices.

### vii. Storm Drain Operation and Maintenance

Specific BMPs for storm drain operations and maintenance have been carried over from Order No. 01-182 into this Order.

Permittees must prioritize catch basins for cleaning activities based on the volume of trash or debris.

The materials removed from catch basins may not reenter the MS4. The material must be dewatered in a contained area and the water treated with an appropriate and approved control measure or discharged to the sanitary sewer. The solid material will need to be stored and disposed of properly to

avoid discharge during a storm event. Some materials removed from storm drains and open channels may require special handling and disposal, and may not be authorized to be disposed of in a landfill.

### viii. Streets, Roads, and Parking Facilities Maintenance

Permittees must prioritize streets and/or street segments for sweeping activities based on the volume of trash generated on the street or street segments. Based on these established priorities, Permittees must conduct street sweeping twice per month on the highest priority streets (Priority A), once per month on the medium priority streets (Priority B), and as needed but not less than once per year on the lowest priority streets (Priority C). In addition parking facilities must be cleaned using street sweeping equipment no less than two times per month and inspect no less than two times per month to determine if cleaning is necessary.

Specific BMPs for road reconstruction have been incorporated into this Order and must be followed during road repaying activities.

### ix. Emergency Procedures

Permittees are required to conduct repairs of essential public service systems and infrastructure in emergency situations. These requirements ensure the protection of water quality. BMPs must be implemented to reduce the threat to water quality and the Regional Water Board must be notified of the occurrence, an explanation of the circumstances and measures taken to reduce the threat to water quality within 30 business days after the emergency has passed.

# x. Municipal Employee and Contractor Training

Permittees are required to ensure that training is provided for employees and contractors that have job duties or participate in activities that have the potential to affect storm water quality. The training should promote a general understanding of the potential for activities to pollute storm water and include information on the identification of opportunities to require, implement, and maintain BMPs associated with the activities they perform. In addition training specific to employees or contractors that use or have the potential to use pesticides or fertilizers should be provided. This training should instruct employees and contractors on the potential for pesticiderelated surface water toxicity, the proper use, handling and disposal of pesticides, the least toxic methods of pest prevention and control, and the overall reduction of pesticide use.

Many municipalities use third-party contractors to conduct municipal maintenance activities in lieu of using municipal employees. Contractors performing activities that can affect storm water quality must be held to the same standards as the Permittee. Not only must these expectations be defined in contracts between the Permittee and its contractors, but the Permittee is responsible for ensuring, through contractually-required documentation or periodic site visits, that contractors are using storm water controls and following standard operating procedures.

## 9. Illicit Connection and Illicit Discharge Elimination Program

### a. Legal Authority

A proposed management program "shall be based on a description of a program, including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer," per 40 CFR section 122.26(d)(2)(iv)(B). A Permittee must include in its proposed management program "a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer," per subsection (1) of the above federal regulation.

USEPA stormwater regulations define "illicit discharge" as "any discharge to a municipal separate storm sewer that is not composed entirely of stormwater" except discharges resulting from fire fighting activities and discharges from NPDES permitted sources (see 40 CFR section 122.26(b)(2)). The applicable regulations state that the following non-stormwater discharges may be allowed if they are not determined to be a significant source of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR section 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water. If, however, these discharges are determined to be a significant source of pollution then they must be prohibited.

Examples of common sources of illicit discharges in urban areas include apartments and homes, car washes, restaurants, airports, landfills, and gas stations. These so called "generating sites" discharge sanitary wastewater, septic system effluent, vehicle wash water, washdown from grease traps, motor oil, antifreeze, gasoline and fuel spills, among other substances. Although these illicit discharges can enter the storm drain system in various ways, they generally result from either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system, spills, or "midnight dumping"). Illicit discharges can be further divided into those discharging continuously and those discharging intermittently.

# b. Illicit Discharge Source Investigation and Elimination

Section 402(p)(3)(B)(ii) of the CWA requires MS4 permits to "effectively prohibit non-stormwater discharges into the storm sewers." The permit implements this requirement, in part by requiring the development of procedures to investigate and eliminate illicit discharges. The permittee must develop a clear, step-by-step procedure for conducting the investigation of illicit discharges. The procedure must include an investigation protocol that clearly defines what constitutes an illicit discharge and what steps shall be taken to identify and eliminate its source. In many circumstances, sources of intermittent, illicit discharges are very difficult to locate, and these cases may remain unresolved. The permit requires that each case be conducted in accordance with the procedures developed to locate the source and conclude the investigation, after which the case may be considered closed. These procedures should be completed per the Progressive Enforcement Policy identified in Part VI.D.2 of this Order and should include enforcement as necessary to ensure the elimination of the illicit discharge/connection.

Illicit discharges may also originate in upstream jurisdictions and therefore this Order establishes procedures for communicating with upstream entities and providing information that may prove helpful in their investigation of its source(s).

If a Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the Permittee shall provide for diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the Permittee shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion. The goal of these requirements is to provide a permanent solution for ongoing illicit discharges.

# c. Identification and Response to Illicit Connections

Illicit connections to the MS4 can lead to the direct discharge or infiltration of sewage or other prohibited discharges into the MS4. Permitees have been conducting illicit connection screening throughout the term of Order No. 01-182 and this Order requires a continuation of response efforts once an illicit connection is identified. This Order establishes unique obligations for the LACFCD and for the individual Permitees. The requirements for LACFCD are based on the unique obligations and infrastructure of a regional flood control district. Requirements for the individual Permittees require the investigation and follow-up of all illicit connections within 21 days of identification and elimination within 180 days.

# d. Public Reporting of Non-Storm Water Discharges and Spills

Each Permittee needs to promote a program to help in the identification and termination of illicit discharges. This Order establishes requirements for the Permitees, individually or as a group, to develop public education campaigns and reporting numbers which are intended to promote public reporting of illicit discharges. Specifically, a stormwater hotline can be used to help permittees become aware of and mitigate spills or dumping incidents. Spills can include everything from an overturned gasoline tanker to sediment leaving a construction site to a sanitary sewer overflow entering into a storm drain. Permittees must set up a hotline consisting of any of the following (or combination thereof): a dedicated or non-dedicated phone line, E-mail address, or website.

This Order also requires development of written procedures for receiving and responding to calls from the public and for maintaining documentation about reported illicit discharges and spills and their investigation and remedy. These requirements are intended to ensure that reliable and consistent practices are deployed to address this persistent problem.

## e. Spill Response Plan

Spills, leaks, sanitary sewer overflows, and illicit dumping or discharges can introduce a range of stormwater pollutants into the storm system. Prompt response to these occurrences is the best way to prevent or reduce negative impacts to waterbodies. The permittee must develop a spill response plan that includes an investigation procedure similar to or in conjunction with the investigation procedures developed for illicit discharges in general. Often, a different entity might be responsible for spill response in a community (i.e. fire department), therefore, it is imperative that adequate communication exists between stormwater and spill response staff to ensure that spills are documented and investigated in a timely manner.

# f. Illicit Connection and Illicit Discharge Education and Training

The permit requires each Permittee to train field staff, who may come into contact or observe illicit discharges, on the identification and proper procedures for reporting illicit discharges. Field staff to be trained may include, but are not limited to, municipal maintenance staff, inspectors, and other staff whose job responsibilities regularly take them out of the office and into areas within the MS4 area. Permittee field staff are out in the community every day and are in the best position to locate and report spills, illicit discharges, and potentially polluting activities. With proper training and information on reporting illicit discharges easily accessible, these field staff can greatly expand the reach of the IDDE program.

# D. Total Maximum Daily Load Provisions

Clean Water Act section 303(d)(1)(A) requires each State to conduct a biennial assessment of its waters, and identify those waters that are not achieving water quality standards. These waters are identified as impaired on the State's Clean Water Act

section "303(d) List" of water quality limited segments. The Clean Water Act also requires States to establish a priority ranking for waters on the 303(d) List and to develop and implement Total Maximum Daily Loads (TMDLs) for these waters. A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and allocates the acceptable pollutant load to point and nonpoint sources. The elements of a TMDL are described in 40 CFR sections 130.2 and 130.7. A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR § 130.2). Regulations further require that TMDLs must be set at "levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR section 130.7(c)(1)). The regulations at 40 CFR section 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters. Essentially, TMDLs serve as a backstop provision of the CWA designed to implement water quality standards when other provisions have failed to achieve water quality standards.

Upon establishment of TMDLs by the State or the USEPA, the State is required to incorporate, or reference, the TMDLs in the State Water Quality Management Plan (40 CFR sections 130.6(c)(1) and 130.7). The Regional Water Board's Basin Plan, and applicable statewide plans, serves as the State Water Quality Management Plan governing the watersheds under the jurisdiction of the Regional Water Board. When adopting TMDLs as part of its Basin Plan, the Regional Water Board includes, as part of the TMDL, a program for implementation of the WLAs for point sources and load allocations (LAs) for nonpoint sources.

TMDLs are not self-executing, but instead rely upon further Board orders to impose pollutant restrictions on discharges to achieve the TMDL's WLAs. Federal regulations require that NPDES permits must include conditions consistent with the assumptions and requirements of any available waste load allocation (40 CFR section 122.44(d)(1)(vii)(B)). Similarly, state law requires both that the Regional Water Board implement its Basin Plan when adopting waste discharge requirements (WDRs) and that NPDES permits apply "any more stringent effluent standards or limitations necessary to implement water quality control plans..." (Cal. Wat. Code §§ 13263, 13377).

An NPDES permit should incorporate the WLAs as numeric WQBELs, where feasible. Where a non-numeric permit limitation is selected, such as BMPs, the permit's administrative record must support the expectation that the BMPs are sufficient to achieve the WLAs. (40 CFR §§ 124.8, 124.9, and 124.18.) The USEPA has published guidance for establishing WLAs for storm water discharges in TMDLs and their incorporation as numeric WQBELs in MS4 permits.³⁷

³⁷ USEPA (2010) "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those TMDLs'." Issued by James A. Hanlon, Director, Office of Wastewater Management and Denise Keehner, Director, Office of Wetlands, Oceans and Watersheds. November 12, 2010.

# **RB-AR4400**

Greater Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

As required, permit conditions are included in this Order consistent with the assumptions and requirements of the available WLAs assigned to MS4 discharges, which have been established in thirty-three TMDLs. The Regional Water Board adopted twenty-five (25) TMDLs and USEPA established seven (7) TMDLs that assign WLAs to MS4 Permittees within the County of Los Angeles. In addition, the Santa Ana Regional Water Board adopted a TMDL that assigns WLAs to the Cities of Pomona and Claremont. The TMDLs included in this Order along with the adoption and approval dates are listed in the table below. Permit conditions for two of these TMDLs – the Marina del Rey Harbor Bacteria TMDL and the Los Angeles River Watershed Trash TMDL – were previously incorporated into Order No. 01-182 during re-openers in 2007 and 2009, respectively (Orders R4-2007-0042 and R4-2009-0130). TMDLs are typically developed on a watershed or subwatershed basis, which facilitates a more accurate assessment of cumulative impacts of pollutants from all sources. An overview of each Watershed Management Area, including the TMDLs applicable to it, is provided below.

#### TMDLs with Resolution Numbers, Adoption Dates and Effective Dates

Greater Los Angeles County Municipal Separate Storm Sewer System

#### ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE		
Santa Clara River Watershed Management Area									
Santa Clara River Nitrogen Compounds TMDL	2003-011	8/7/2003	2003-0073	11/19/2003	2/27/2004	3/18/2004	3/23/2004		
Upper Santa Clara River Chloride TMDL	2008-012	12/11/2008	2009-0077	10/20/2009	1/26/2010	4/6/2010	4/6/2010		
Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only)	2007-009	6/7/2007	2007-0073	12/4/2007	2/8/2008	2/27/2008	3/6/2008		
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL	R10-006	7/8/2010	2011-0048	10/4/2011	12/19/2011	<b>1/13/2012</b>	3/21/2012		
Santa Monica Bay Watershed Management Area									
Santa Monica Bay Beaches Bacteria TMDL (Dry Weather)	2002-004	1/24/2002	2002-0149	9/19/2002	12/9/2002	6/19/2003	7/15/2003		
Santa Monica Bay Beaches Bacteria TMDL (Wet Weather)	2002-022	12/12/2002	2003-0022	3/19/2003	5/20/2003	6/19/2003	7/15/2003		
Santa Monica Bay Nearshore and Offshore Debris TMDL	R10-010	11/4/2010	2011-0064	12/6/2011	3/15/2012	3/20/2012	3/20/2012		
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)	N/A	N/A	N/A	N/A	N/A 🗛	3/26/2012	N/A		
Malibu Creek Subwatershed									
Malibu Creek and Lagoon Bacteria	2004-019R	12/13/2004	2005-0072	9/22/2005	12/1/2005	1/10/2006	1/24/2006		
Malibu Creek Watershed Trash TMDL	2008-007	5/1/2008	2009-0029	3/17/2009	6/16/2009	6/26/2009	7/7/2009		
Malibu Creek Watershed Nutrients TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A V	3/21/2003	N/A		
Ballona Creek Subwatershed									
Ballona Creek Trash TMDL	2004-023	3/4/2004	2004-0059	9/30/2004	2/8/2005	N/A	8/11/2005		
Ballona Creek Estuary Toxic Pollutants TMDL	2005-008	7/7/2005	2005-0076	10/20/2005	12/15/2005	12/22/2005	1/11/2006		
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL	2006-011	6/8/2006	2006-0092	11/15/2006	2/20/2007	3/26/2007	4/27/2007		

Greater Los Angeles County Municipal Separate Storm Sewer System

#### ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE	
Ballona Creek Metals TMDL	2007-015	9/6/2007	2008-0045	6/17/2008	10/6/2008	10/29/2008	10/29/2008	
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
Marina del Rey Subwatershed								
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	2003-012	8/7/2003	2003-0072	11/19/2003	1/30/2004	3/18/2004	3/18/2004	
Marina del Rey Harbor Toxic Pollutants TMDL	2005-012	10/6/2005	2006-0006	1/13/2006	3/13/2006	3/16/2006	3/22/2006	
Domi	nguez Channel an	d Greater Hark	oors Waters Wate	ershed Manage	ement Area			
Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)	2004-011	7/1/2004	2004-0071	10/21/2004	1/5/2005	3/1/2005	3/10/2005	
Machado Lake Trash TMDL	2007-006	6/7/2007	2007-0075	12/4/2007	2/8/2008	2/27/2008	3/6/2008	
Machado Lake Nutrient TMDL	2008-006	5/1/2008	2008-0089	12/2/2008	2/19/2009	3/11/2009	3/11/2009	
Machado Lake Pesticides and PCBs TMDL	R10-008	9/2/2010	2011-0065	12/6/2011	2/29/2012	3/20/2012	3/20/2012	
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	R11-008	5/5/2011	2012-0008	2/7/2012	^{3/21/2012}	3/23/2012	3/23/2012	
Los Angeles River Watershed Management Area								
Los Angeles River Watershed Trash TMDL	2007-012	8/9/2007	2008-0024	4/15/2008	7/1/2008	7/24/2008	9/23/2008	
Los Angeles River Nitrogen Compounds and Related Effects TMDL	2003-016	12/4/2003	2004-0014	3/24/2004	9/27/2004 F	N/A	9/27/2004	
Los Angeles River and Tributaries Metals TMDL	R10-003	5/6/2010	2011-0021	4/19/2011	7/28/2011	11/3/2011	11/3/2011	
Los Angeles River Bacteria TMDL	R10-007	7/9/2010	2011-0056	11/1/2011	3/21/2012	3/23/2012	3/23/2012	
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	

Greater Los Angeles County Municipal Separate Storm Sewer System

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TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE	
Los Angeles Area Lakes TMDLs (USEPA established for Lake Calabasas, Echo Park Lake, and Peck Road Park Lake)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
San Gabriel River Watershed Management Area								
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2007	N/A	
Legg Lake Trash TMDL	2007-010	6/7/2007	2007-0074	12/4/2007	2/5/2008	2/27/2008	3/6/2008	
Los Angeles Area Lakes TMDLs (USEPA established for Legg Lake and Puddingstone Reservoir)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A	
Los Cerritos Channel and Alamitos Bay Watershed Management Area								
Los Cerritos Channel Metals TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/17/2010	N/A	
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	R09-005	10/1/2009	2010-0056	11/16/2010	5/6/2011	6/14/2011	7/28/2011	
Middle Santa Ana River Watershed Management Area (Santa Ana Region TMDL)								
Middle Santa Ana River Watershed Bacteria Indicator TMDL	R8-2005-0001	8/26/2005	2006-0030	5/15/2006	9/1/2006	5/16/2007	5/16/2007	

I V E

# **RB-AR4404**

T E N T A T I V

#### ORDER NO. R4-2012-XXXX NPDES PERMIT NO. CAS004001

**Santa Clara River Watershed Management Area.** The Santa Clara River and its tributaries drain a watershed area of 1,634 square miles (sq. miles) (Figure B-1). Santa Clara River Reaches 1, 2, 3, 4A, 4B and major tributaries Santa Paula, Sespe and Piru Creeks are in Ventura County. Santa Clara River Reaches 5, 6, 7, 8 and major tributaries Castaic, San Francisquito, and Bouquet Canyon Creeks are in Los Angeles County. About 40% of the watershed, the Upper Santa Clara River, is located in County of Los Angeles. Approximately, 75% of the Upper Santa Clara River watershed is open space used for recreation in the Angeles National Forest. The remainder of the upper portion of the watershed is characterized by a mixture of residential, mixed urban, and industrial land uses with low density residential more common in the Uppermost areas of the watershed, while high density residential is more prevalent in the City of Santa Clarita.

Various reaches of the Santa Clara River are on the 2010 CWA Section 303(d) List of impaired water bodies for nitrogen, bacteria, chloride, and trash (in lakes), among other pollutants. The excess nitrogen compounds are causing impairments to the WARM, WILD, and GWR designated beneficial uses of the Santa Clara River in Reaches 3, 7 and 8. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses for the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. The excessive levels of chloride are impairing the AGR and GWR designated beneficial uses of the Upper Santa Clara River Reaches 4A, 4B, 5 and 6. The trash in Lake Elizabeth is causing impairments to the WARM, WILD, RARE, REC-1 and REC-2 designated beneficial uses.

TMDLs have been adopted by the Regional Water Board to address the impairments due to nitrogen, bacteria and chloride in the Upper Santa Clara River Watershed and for trash in Lake Elizabeth. Each of these TMDLs identifies MS4 discharges as a source of pollutants and assigns allocations to MS4 discharges. In the nitrogen compounds TMDL, storm water discharges were identified as potentially contributing nitrogen loads. Data from land use monitoring conducting under the LA County MS4 Permit from 1994-1999 indicate some concentrations of ammonia from commercial land uses in excess of the 30-day average concentration based WLA of 1.75 mg/l, and potential concentrations of nitrate-N and nitrite-N from residential land uses in excess of the WLA of 6.8 mg/l. Recent data from the 2010-11 annual monitoring report indicate low levels of ammonia and nitrite at the mass emissions station (S29) in the Santa Clara River, and concentrations of nitrate-N ranging from 1.38-1.66 mg/l in dry weather and 0.015-1.86 mg/I in wet weather. In the chloride TMDL, major point sources are assigned a WLA of 100 mg/l. Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/l, while more recent data from the mass emissions station (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather. For the bacteria TMDL, the Regional Water Board found that the significant contributors of bacteria loading to the Santa Clara River are discharges of storm water and non-storm water from the MS4. For the trash TMDL, discharges from the MS4 are sources of trash discharged to Lake Elizabeth.

Santa Monica Bay Watershed Management Area. The Santa Monica Bay Watershed Management Area (WMA) encompasses an area of 414 sq. miles (Figure B-2). Its

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borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. A narrow strip of land between Playa del Rey and Palos Verdes drains to the Bay south of Ballona Creek. The WMA includes several subwatersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. SCAG land use data from 2005 shows 62% of the area is open space, high density residential is 17% of the area, and low density residential is 2.3% of the area. Commercial and industrial land uses total 6% of the area and are found in all but a handful of the subwatersheds.

Many of the Santa Monica Bay beaches were identified on the 1998 CWA Section 303(d) List of impaired water bodies for high coliform counts and beach closures. Santa Monica Bay offshore and nearshore is on the 2010 CWA Section 303(d) List of impaired water bodies for debris, DDTs, PCBs and sediment toxicity. The elevated bacterial indicator densities during both dry and wet weather are causing impairments of the REC-1 and REC-2 designated beneficial uses of the Santa Monica Bay beaches. The debris and elevated concentrations of DDT and PCBs are causing impairments to the IND, NAV, REC-1, REC-2, COMM, EST, MAR, BIOL, MIGR, WILD, RARE, SPWN, SHELL, and WET designated beneficial uses of the Santa Monica Bay.

TMDLs have been adopted by the Regional Water Board and USEPA for bacteria at Santa Monica Bay Beaches, and for debris, DDTs, PCBs and sediment toxicity in Santa Monica Bay. In the bacteria TMDL, the Regional Water Board determined that discharges of storm water and non-storm water from the MS4 are the primary source of elevated bacterial indicator densities to Santa Monica Bay beaches during dry and wet weather. In the debris TMDL, the Regional Water Board determined that most of the land-based debris is discharged to the marine environment through the MS4. In the DDT and PCBs TMDL, USEPA determined that although DDT is no longer used, it persists in the environment, adhering strongly to soil particles. The manufacture of PCBs is no longer legal, but PCBs also persist in the environment and are inadvertently produced as a result of some manufacturing processes. Both DDT and PCBs are transported in contaminated sediments via urban runoff through the MS4 to Santa Monica Bay.

The Malibu Creek subwatershed drains an area of about 109 square miles (Figure B-2a). Approximately two-thirds of this subwatershed lies in Los Angeles County and the remaining third in Ventura County. Much of the land is part of the Santa Monica Mountains National Recreation Area and is under the purview of the National Parks Service. The watershed borders the eastern portion of Ventura County to the west and north and Los Angeles River watershed to the east. Major tributaries include Cold Creek, Lindero Creek, Las Virgenes Creek, Medea Creek, and Triunfo Creek. Located at the end of and receiving flows from Malibu Creek is the 40-acre Malibu Lagoon. The Malibu Creek subwatershed land uses are 88% open space, 3% commercial/light industry, 9% residential and less than 1% public.

The Malibu Creek Watershed is on the 2010 CWA Section 303(d) List of impaired water bodies for bacteria, nutrients, and trash. Elevated bacterial indicator densities are

causing impairment of the REC-1 and REC-2 designated beneficial uses of Malibu Creek, Malibu Lagoon, and the adjacent beaches. Excess nutrients are causing impairments to the REC-1, REC-2, WARM, COLD, EST, MAR, WILD, RARE, MIGR, and SPWN designated beneficial uses of waterbodies in the Malibu Creek Watershed. Trash is causing impairments to the MUN, GWR, REC-1, REC-2, WARM, COLD, MIGR, WILD, RARE, SPWN, and WET designated beneficial uses of the waterbodies in the Malibu Creek Watershed.

TMDLs have been adopted by the Regional Water Board for bacteria and trash in Malibu Creek. USEPA established a TMDL for nutrients in Malibu Creek. Fecal coliform bacteria may be introduced from a variety of sources including storm water and non-storm water discharges from the MS4. USEPA determined that high nitrogen and phosphorus loadings are associated with storm water discharges from commercial and residential land uses and also from undeveloped areas. During the summer non-storm water discharges add a significant portion of the load. The Regional Water Board determined in the trash TMDL that discharges from the MS4 are a source of trash to waterbodies in the Malibu Creek Watershed.

Ballona Creek and its tributaries drain a subwatershed of about 127 square miles (Figure B-2b). The watershed boundary extends in the east from the crest of the Santa Monica Mountains southward and westward to the vicinity of central Los Angeles and thence to Baldwin Hills. Tributaries of Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous other storm drains. Ballona Creek is concrete lined upstream of Centinela Boulevard. All of its tributaries are either concrete channels or covered culverts. The channel downstream of Centinela Boulevard is trapezoidal composed of grouted rip-rap side slopes and an earth bottom. The urbanized areas of Ballona Creek, which consists of residential and commercial properties, accounts for 80% of the watershed; the partially developed foothill and mountains make up the other 20%.

Ballona Creek and Ballona Creek Estuary is on the 2010 CWA Section 303(d) List for trash, toxicity, bacteria, and metals. The Ballona Creek Wetlands is on the 2010 CWA 303(d) List for trash, exotic vegetation, Section habitat alterations and hydromodification. Trash is causing impairments to the REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET, and COLD designated beneficial uses of Ballona Creek. A suite of toxic pollutants, including cadmium, copper, lead, silver, zinc, chlordane, DDT, PCBs, and PAHs in sediments and dissolved copper, dissolved lead, total selenium, and dissolved zinc, are causing impairments to the REC-1, REC-2, EST, MAR, WILD, RARE, MIGR, SPWN, COMM, and SHELL designated beneficial uses of Ballona Creek Estuary and Ballona Creek and Sepulveda Channel, respectively. The elevated bacterial indicator densities are causing impairment of the REC-1, LREC-1, and REC-2 designated beneficial uses of Ballona Creek and Ballona Estuary. The excess sediment and invasive exotic vegetation is causing impairments to the EST, MIGR, RARE, REC-1, REC-2, SPWN, WET, and WILD designated beneficial uses of the Ballona Creek Wetlands.

TMDLs have been adopted by the Regional Water Board for trash, metals and toxic pollutants in Ballona Creek and Estuary, and bacteria. USEPA established a TMDL for

Sediment and Invasive Exotic Vegetation in the Ballona Creek Wetlands. Stormwater discharge is the major source of trash in Ballona Creek. Urban storm water has been recognized as a substantial source of metals. Storm drains convey a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be guite high. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in estuarine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates. There is toxicity associated with suspended solids in urban runoff discharged from Ballona Creek, as well as with the receiving water sediments. This toxicity is likely attributed to metals and organics associated with the suspended sediments. The major contributors of flows and associated bacteria loading to Ballona Creek and Ballona Estuary are storm water and non-storm water discharges from the MS4. The potential for sediment loading into the Ballona Creek Wetlands is associated with the flow coming down the watershed. Sediment moves from the watershed through the MS4 as a result of storms, wind and land based runoff. Major storms usually take place in winter and are responsible for major movements of sediment down the watershed into Ballona Creek and Ballona Wetland towards the coastal waterbodies. These activities can lead to discharge of large quantities of sediments in runoff.

The Marina del Rey subwatershed is approximately 2.9 square miles located adjacent to the mouth of Ballona Creek. The Marina del Rey subwatershed is highly developed at 80%, the remaining 20% is split between water and open/recreation land uses.

Marina del Rey is on the 2010 CWA Section 303(d) List for bacteria and sediment concentrations of copper, lead, zinc, DDT, PCBs, chlordane, and sediment toxicity. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses at Marina del Rey Harbor Mothers' Beach and back basins. The toxic pollutants are causing impairments to the REC-1, MAR, WILD, COMM, and SHELL designated beneficial uses of the Marina del Rey Harbor.

TMDLs have been adopted by the Regional Water Board for bacteria and toxic pollutants. Non-storm water and storm water discharges from the MS4 are the primary sources of elevated bacterial indicator densities to Marina del Rey Harbor Mothers' Beach and back basins during dry and wet weather. Urban storm water has been recognized as a substantial source of metals. Numerous researchers have documented that the most prevalent metals in urban storm water (i.e., copper, lead, and zinc) are consistently associated with suspended solids. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in marine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates.

**Dominguez Channel and Greater Harbor Waters Watershed Management Area.** The Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area (Dominguez WMA) is located in the southern portion of the Los Angeles Basin (Figure B-3). Los Angeles Harbor is 7,500 acres and the Long Beach Harbor is 7,600 acres; together they have an open water area of approximately 8,128 acres. The 15 mile-long Dominguez Channel drains a densely urbanized area to Inner

Los Angeles Harbor. Near the end of the 19th century and during the beginning of the next century, channels were dredged, marshes were filled, wharves were constructed, the Los Angeles River was diverted, and breakwaters were constructed in order to allow deep draft ships to be directly offloaded at the docks. The Dominguez Slough was completely channelized and became the drainage endpoint for runoff from a highly industrialized area. Eventually, the greater San Pedro Bay was enclosed by two more breakwaters and deep entrance channels were dredged to allow for entry of ships.

Various reaches of the Dominguez WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for metals, DDT, PCBs, PAHs, historic pesticides, coliform, and sediment toxicity. The elevated bacteria indicator densities is causing impairments to the SHELL, REC-1, and REC-2 designated beneficial uses of Los Angeles Harbor. The elevated levels of metals and organics are causing impairments to beneficial uses designated in these waters to protect aquatic life, including MAR and RARE. In addition, the elevated levels are causing impairments in the estuaries, which are designated with SPWN, MIGR, and WILD beneficial uses. Dominguez Channel also has an existing designated use of WARM and the Los Angeles River Estuary has the designated use of WET. Beneficial uses associated with human use of these waters that are impaired due to the elevated concentrations of metals and organics include REC-1, REC-2, IND, NAV, COMM, and SHELL.

TMDLs have been adopted by the Regional Water Board for toxic pollutants in the Dominguez WMA and for bacteria at Inner Cabrillo Beach and the Main Ship Channel. Discharges from the MS4 are a source of elevated bacterial indicator densities to Inner Cabrillo Beach and the Main Ship Channel during dry and wet weather. The major point sources of organochlorine pesticides, PCBs, and metals into Dominguez Channel are storm water and non-storm water discharges. The contaminated sediments are a reservoir of historically deposited pollutants. Storm water runoff from manufacturing, military facilities, fish processing plants, wastewater treatment plants, oil production facilities, and shipbuilding or repair yards in both Ports have discharged untreated or partially treated wastes into Harbor waters. Current activities also contribute pollutants to Harbor sediments, in particular, storm water runoff.

Machado Lake is listed for trash, nutrients, PCBs and historic pesticides. Trash, nutrients and toxic pollutants are causing impairments to the WARM, WET, RARE, WILD, REC-1 and REC-2 designated beneficial uses of Machado Lake. TMDLs have been adopted by the Regional Water Board for trash, nutrients, PCBs and pesticides for Machado Lake. The point sources of trash and nutrients into Machado Lake are storm water and non-storm water discharges from the MS4. Storm water discharges occur through the following sub-drainage systems: Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake.

Los Angeles River Watershed Management Area. The Los Angeles River Watershed Management Area (LAR WMA) drains a watershed of 824 square miles (Figure B-4). The LAR WMA is one of the largest in the Region and is also one of the most diverse in terms of land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters, which originate in the Santa Monica, Santa Susana, and San Gabriel

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Mountains. The remainder of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach. Due to major flood events at the beginning of the century, by the 1950s most of the LA River was lined with concrete. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. Since the water table was too high to allow laying of concrete, the river in this area has a rocky, unlined bottom with concrete-lined or rip-rap sides. South of the Glendale Narrows, the river is contained in a concrete-lined channel down to Willow Street in Long Beach. The LA River tidal prism/estuary begins in Long Beach at Willow Street and runs approximately three miles before joining with Queensway Bay. The channel has a soft bottom in this reach with concrete-lined sides. A number of lakes are also part of the LAR WMA, including Peck Road Park, Belvedere Park, Hollenbeck Park, Lincoln Park, and Echo Park Lakes as well as Lake Calabasas.

Various reaches and lakes within the LAR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for trash, nitrogen compounds and related effects (ammonia, nitrate, nitrite, algae, pH, odor, and scum), metals (copper, cadmium, lead, zinc, aluminum and selenium), bacteria, and historic pesticides. Beneficial uses impaired by trash in the Los Angeles River are REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET and COLD. The excess nitrogen compounds are causing impairments to the WARM and WILD designated beneficial uses of Los Angeles River. Excess metals are causing impairments to the WILD, RARE, WARM, WET, and GWR designated beneficial uses of the Los Angeles River and its tributaries. Elevated indicator bacteria densities are causing impairments to the REC-1 and REC-2 designated beneficial uses of Los Angeles River and the Los Angeles River Estuary.

TMDLs have been adopted by the Regional Water Board for trash, nitrogen, metals, and bacteria in the Los Angeles River. USEPA established TMDLs for bacteria in the Los Angeles River Estuary and for various pollutants in Los Angeles Area Lakes. The Los Angeles River Watershed Trash TMDL identifies discharges from the municipal separate storm sewer system as the principal source of trash to the Los Angeles River and its tributaries. The Regional Water Board determined that urban runoff and storm water may contribute to nitrate loads. Discharges from the MS4 contribute a large percentage of the metals loadings during dry weather because although non-storm water flows from the MS4 are typically low relative to other discharges during dry weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow. On an annual basis, storm water discharges from the MS4 contribute about 40% of the cadmium loading, 80% of the copper loading, 95% of the lead loading, and 90% of the zinc loading. Discharges from the MS4 are the

principal source of bacteria to the Los Angeles River, its tributaries and the Los Angeles River Estuary in both dry weather and wet weather.

The Los Angeles Water Board identified 10 lakes in the Los Angeles region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA are: Lake Calabasas TMDLs for total nitrogen and total phosphorus; Echo Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, dieldrin, total PCBs, and trash; and Peck Road Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, total DDT, dieldrin, total PCBs, and trash.

In Lake Calabasas beneficial uses impaired by elevated levels of nutrients include REC1, REC2, and WARM. At high enough concentrations, WILD and MUN uses could also become impaired. MS4 discharges from the surrounding watershed to Lake Calabasas during dry and wet weather contributes 97.7 percent of the total phosphorus load and 74.4 percent of the total nitrogen load.

In Echo Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, and dieldrin are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. Beneficial uses impaired by trash in Echo Park Lake include REC1, REC2, WARM and WILD. The Echo Park Lake nutrient TMDL found that MS4 discharges from the northern and southern watershed to Echo Lake contribute 29 percent of the total phosphorus load and 28 percent of the total nitrogen load during wet weather with dry weather loading data unavailable due to the majority of runoff being diverted downstream of the lake. PCBs, chlordane, and dieldrin in Echo Park Lake are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Storm water loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Echo Park Lake.

In Peck Road Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, DDT, dieldrin, and trash are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. The Peck Road Park Lake nutrient TMDL found that MS4 discharges from the surrounding watershed including both wet and dry weather contribute 80.2 percent of the total phosphorus load and 55.5 percent of the total nitrogen load. PCBs, chlordane, DDT, and dieldrin in Peck Road Park Lake loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is

mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Peck Road Park Lake.

**San Gabriel River Watershed Management Area.** The San Gabriel River Watershed (SGR WMA) receives drainage from a 689-square mile area of eastern Los Angeles County (Figure B-5). The main channel of the San Gabriel River is approximately 58 miles long. Its headwaters originate in the San Gabriel Mountains with the East, West, and North Forks. The river empties to the Pacific Ocean at the Los Angeles and Orange Counties boundary in Long Beach. The main tributaries of the river are Big and Little Dalton Wash, San Dimas Wash, Walnut Creek, San Jose Creek, Fullerton Creek, and Coyote Creek. Part of the Coyote Creek subwatershed is in Orange County and is under the authority of the Santa Ana Water Board. A number of lakes and reservoirs are also part of the SGR WMA, including Legg Lake and Puddingstone Reservoir. Land use in the watershed is diverse and ranges from predominantly open space in the upper watershed to urban land uses in the middle and lower parts of the watershed.

Various reaches of the SGR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies due to trash, nitrogen, phosphorus, and metals (copper, lead, selenium, and zinc). Beneficial uses impaired by trash in Legg Lake include REC1, REC2, and WILD.

A TMDL has been adopted by the Regional Water Board for trash in Legg Lake. The Legg Lake Trash TMDL identifies MS4 storm drains as the principal point source for trash discharged to Legg Lake.

USEPA established TMDLs for metals and selenium in the San Gabriel River and various pollutants in Los Angeles Area Lakes. Segments of the San Gabriel River and its tributaries exceed water quality objectives for copper, lead, selenium, and zinc. Metals loadings to San Gabriel River are causing impairments of the WILD, WARM, COLD, RARE, EST, MAR, MIGR, SPWN, WET, MUN, IND, AGR, GWR, and PROC beneficial uses. The San Gabriel River metals and selenium TMDL found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

The Regional Water Board identified 10 lakes in the Los Angeles Region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA are: Legg Lake TMDLs for total nitrogen and total phosphorus; and Puddingstone Reservoir TMDLs for total nitrogen, total phosphorus, total chlordane, total DDT, total PCBs, total mercury, and dieldrin.

In Legg Lake beneficial uses impaired due to elevated nutrient levels include REC1, REC2, WARM and COLD. At high enough concentrations the WILD, MUN, and GWR uses could also become impaired. The Legg Lake nutrient TMDL found that MS4 discharges from the surrounding watershed to Legg Lake during dry and wet weather contributes 69.1 percent of the total phosphorus load and 36 percent of the total nitrogen load.

In Puddingstone Reservoir beneficial uses impaired due to elevated nutrient, mercury, PCBs, chlordane, dieldrin, and DDT levels include REC1, REC2, WARM, and COLD. At high enough concentrations the WILD, MUN, GWR, and RARE uses could also become impaired. The Puddingstone Reservoir nutrients TMDL found that MS4 discharges from the surrounding watershed to Puddingstone Reservoir during dry and wet weather contributes 79.8 percent of the total phosphorus and 74.1 percent of the total nitrogen load. Mercury, PCBs, chlordane, dieldrin, and DDT in Puddingstone Reservoir loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake.

Los Cerritos Channel and Alamitos Bay Watershed Management Area. The Los Cerritos Channel is concrete-lined above the tidal prism and drains a small but densely urbanized area of east Long Beach (Figure B-6). The channel's tidal prism starts at Anaheim Road and connects with Alamitos Bay through the Marine Stadium; the wetlands connect to the Channel a short distance from the lower end of the Channel. Alamitos Bay is composed of the Marine Stadium, a recreation facility built in 1932; Long Beach Marina; a variety of public and private berths; and the Bay proper. A small bathing lagoon, Colorado Lagoon located entirely in Long Beach, has a tidal connection with the Bay. The majority of land use in this WMA is high density residential.

Los Cerritos Channel is on the 2010 CWA Section 303(d) List of impaired water bodies for metals (copper, zinc, and lead). Beneficial uses impaired by metals in the Los Cerritos Channel include WILD, REC2 and WARM. USEPA established a TMDL for various metals in Los Cerritos Channel. The TMDL for metals in Los Cerritos Channel found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

**Middle Santa Ana River Watershed Management Area.** The Middle Santa Ana River Watershed Management Area (MSAR WMA) covers approximately 488 square miles and lies mostly in San Bernardino and Riverside Counties; however, a small part of Los Angeles County is also included. The area of Los Angeles County, which lays in the MSAR WMA, includes portions of the Cities of Pomona and Claremont (Figure B-7). The MSAR WMA is comprised of three subwatersheds. The subwatershed that includes portions of Pomona and Claremont is the Chino Basin Subwatershed. Surface

drainage from Pomona and Claremont is generally southward toward San Antonio Creek, which is tributary to Chino Creek, which feeds into the Prado Flood Control Basin.

Various reaches of the MSAR WMA, including Chino Creek, are listed on 2010 CWA Section 303(d) List for bacteria. Elevated bacterial indicator densities are causing impairments of the REC-1 and REC-2 designated beneficial for the Santa Ana River Reach 3; Chino Creek Reaches 1 and 2; Mill Creek (Prado Area); Cucamonga Creek Reach 1; and Prado Park Lake.

The Santa Ana Water Board adopted TMDLs for bacteria for the Middle Santa Ana River Watershed. The Basin Plan amendment incorporating the Middle Santa Ana River Watershed Bacterial Indicator TMDLs was approved by the Santa Ana Water Board on August 26, 2005 (Resolution No. R8-2005-0001), by the State Water Board on May 15, 2006, by the Office of Administrative Law on September 1, 2006, and by the USEPA on May 16, 2007. The TMDL was effective on May 16, 2007. The Santa Ana Water Board concluded based upon data and information collected in 1993, 1996-1998 and in 2002-2004, that urban runoff from the MS4 is a significant source of bacterial indicators year round to the Middle Santa Ana River and its tributaries (Rice, 2005). The TMDL specifies both dry weather and wet weather WLAs, with distinct implementation schedules. Compliance with the summer dry (April 1st through October 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2015. In recognition of the difficulties associated with the control of storm water discharges, compliance with the winter wet (November 1st through March 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2015.

**Calleguas Creek Watershed Management Area.** Calleguas Creek and its tributaries drain a watershed area of 343 square miles (sq. miles) in southern Ventura County and a small portion of western Los Angeles County. Approximately, 4.16 sq. miles of Los Angeles County is part of the Calleguas Creek Watershed. The land use of the 4.15 sq. miles is open space and recreation. The land use of the remaining 0.01 sq. miles is divided between low density residential, industrial, and agriculture (Southern California Association of Governments, 2008). Six TMDLs have been adopted and are in effect for the Calleguas Creek Watershed. None of the TMDLs assign waste load allocations to the Los Angeles County Flood Control District, County of Los Angeles or any incorporated city within Los Angeles County. Therefore, no water quality based effluent limitations were incorporated in this Order for TMDLs in the Calleguas Creek Watershed.

**Manner of Incorporation of TMDL WLAs.** The description of the permit conditions and the basis for the manner for incorporating requirements to implement the TMDLs' WLAs is discussed below.

WLAs may be expressed in different ways in a TMDL. In general, a WLA is expressed as a discharge condition that must be achieved in order to ensure that water quality standards are attained in the receiving water. The discharge condition may be expressed in terms of mass or concentration of a pollutant. However, in some cases, a WLA may be expressed as a receiving water condition such as an allowable number of exceedance days of the bacteria objectives.

In this Order, in most cases, TMDL WLAs have been translated into numeric WQBELs and, where consistent with the expression of the WLA in the TMDL, also as receiving water limitations. For each TMDL included in this Order, the WLA were translated into numeric WQBELs, which were based on the WLAs in terms of the numeric value and averaging period. For those TMDLs where the averaging period was not specific for the WLA, the averaging period was based on the averaging period for the numeric target.

For the bacteria TMDLs, where the WLA are expressed as an allowable number of exceedance days in the water body, the WLAs were translated into receiving water limitations. In addition to the receiving water limitations, WQBELs were established based on the bacteria water quality objectives. In the bacteria TMDLs, the numeric targets are based on the multi-part bacteriological water quality objectives; therefore, this approach is consistent with the assumptions of the bacteria TMDLs.

In the Ballona Creek Trash TMDL, the default baseline WLA for the MS4 Permittees is equal to 640 gallons (86 cubic feet) of uncompressed trash per square mile per year. No differentiation is applied for different land uses in the default baseline WLA. The default baseline WLAs for the Permittees has been refined based on results from the baseline monitoring conducted by the City of Los Angeles. The City of Los Angeles provided trash generation flux data for five land uses: commercial, industrial, high density residential, low density residential and open space and recreation. The Baseline WLA for any single city is the sum of the products of each land use area multiplied by the WLA for the land use area, as shown below:

WLA =  $\sum$  for each city (area by land uses x allocations for this land use)

The baseline was calculated using the City of Los Angeles trash generation flux data provided for the 2003-04 and 2004-05 storm years averaged for pounds of trash per acre and the 2003-04 storm year for gallons of trash per acre. The urban portion of the Ballona Creek watershed was divided into twelve types of land uses for every city and unincorporated area in the watershed. The land use categories are: (1) high density residential, (2) low density residential, (3) commercial and services, (4) industrial, (5) public facilities, (6) educational institutions, (7) military installations, (8) transportation, (9) mixed urban, (10) open space and recreation, (11) agriculture, and (12) water. The land use data used in the calculation is based on the Southern California Association of Governments 2005 data.

# 1. Compliance Determination

For TMDLs that establish individual mass-based WLAs or a concentration-based WLA such as the Trash TMDLs, Nitrogen TMDLs, and Chloride TMDL, this Order requires Permittees to demonstrate compliance with their assigned WQBELs individually.

A number of the TMDLs for Bacteria, Metals and Toxics establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Permittees based on co-location within the same subwatershed. Permittees with co-mingled storm water are jointly responsible for meeting the WQBELs and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsibility" means that the Permittees that have commingled MS4 discharges are responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner or operator, to meet the WQBELs and/or receiving water limitations assigned to such commingled MS4 discharges.

In these cases, federal regulations state that co-permittees need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators. (40 CFR § 122.26(a)(3)(vi).) Individual co-permittees are only responsible for their contributions to the commingled discharge. This Order does not require a Permittee to individually ensure that a commingled MS4 discharge meets the applicable WQBELs included in this Order, unless such Permittee is shown to be solely responsible for the exceedances.

Additionally, this Order allows a Permittee to clarify and distinguish their individual contributions and demonstrate that its MS4 discharge did not cause or contribute to exceedances of applicable WQBELs and/or receiving water limitations. In this case, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the WQBELs or receiving water limitation.

Individual co-permittees who demonstrate compliance with the WQBELs will not be held responsible for violations by non-compliant co-permittees.

**Demonstrating Compliance with Interim Limitations.** This Order provides Permittees with several means of demonstrating compliance with applicable interim WQBELs and/or interim receiving water limitations for the pollutant(s) associated with a specific TMDL. These include any of the following:

- **a.** There are no violations of the interim WQBELs for the pollutant(s) associated with a specific TMDL at the Permittee's applicable MS4 outfall(s),¹ including an outfall to the receiving water that collects discharges from multiple Permittees' jurisdictions;
- b. There are no exceedances of the applicable receiving water limitation for the pollutant(s) associated with a specific TMDL in the receiving water(s) at, or downstream of, the Permittee's outfall(s);

¹ An outfall may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or
- **d.** The Permittee has submitted and is fully implementing an approved Watershed Management Program, which includes analyses that provide the Regional Water Board with reasonable assurance that the watershed control measures proposed will achieve the applicable WQBELs and receiving water limitations consistent with relevant compliance schedules.

**Demonstrating Compliance with Final Limitations.** This Order provides Permittees with three general means of demonstrating compliance with an applicable *final* WQBEL and/or *final* receiving water limitation for the pollutant(s) associated with a specific TMDL.

These include any of the following:

- **a.** There are no violations of the final WQBEL for the specific pollutant at the Permittee's applicable MS4 outfall(s)²;
- b. There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the Permittee's outfall(s); or
- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL.

This Order provides the opportunity for Permittees to demonstrate compliance with *interim* effluent limitations through development and implementation of a Watershed Management Program, where Permittees have provided a reasonable demonstration through quantitative analysis (i.e., modeling or other approach) that the control measures/BMPs to be implemented will achieve the interim effluent limitations in accordance with the schedule provided in this Order. It is premature to consider application of this action based compliance demonstration option to the final effluent limitations and final receiving water limitations that have deadlines outside the term of this Order. More data is needed to validate assumptions and model results regarding the linkage among BMP implementation, the quality of MS4 discharges, and receiving water quality.

During the term of this Order, there are very few deadlines for compliance with final effluent limitations applicable to storm water, or final receiving water limitations applicable during wet weather conditions. Most deadlines during the term of this Order are for interim effluent limitations applicable to storm water, or for final effluent limitations applicable to non-storm water discharges and final dry weather receiving water limitations.

There are only five State-adopted TMDLs for which the compliance deadlines for final water quality-based effluent limitations applicable to storm water occur during the term of this Order. These include: Santa Clara River Chloride TMDL, Santa Clara River Nitrogen TMDL, Los Angeles River Nitrogen TMDL, Marina del Rey Harbor Toxics TMDL, and LA Harbor Bacteria TMDL. In most of these five TMDLs, compliance with the final water quality-based effluent limitations assigned to MS4 discharges is expected to be achieved (e.g., Santa Clara River Chloride TMDL³), or a mechanism is in place to potentially allow additional time to come into compliance (e.g. reconsideration of the Marina del Rey Harbor Toxics TMDL implementation schedule).

The Regional Water Board will evaluate the effectiveness of this action-based compliance determination approach in ensuring that interim effluent limitations for storm water are achieved during this permit term. If this approach is effective in achieving compliance with interim effluent limitations for storm water during this permit term, the Regional Water Board will consider during the next permit cycle whether it would be appropriate to allow a similar approach for demonstrating compliance with final water quality-based effluent limitations applicable to storm water.

# 2. Compliance Schedules for Achieving TMDL Requirements

A Regional Water Board may include a compliance schedule in an NPDES permit when the state's water quality standards or regulations include a provision that authorizes such schedules in NPDES permits.⁴ In California, TMDL implementation plans⁵ are typically adopted through Basin Plan Amendments. The TMDL implementation plan, which is part of the Basin Plan Amendment, becomes a regulation upon approval by the State of California Office of Administrative Law (OAL).⁶ Pursuant to California Water Code sections 13240 and 13242, TMDL implementation plans adopted by the Regional Water Board "shall include ... a time schedule for the actions to be taken [for achieving water quality objectives]," which allows for compliance schedules in future permits. This Basin Plan Amendment becomes the applicable regulation that authorizes an MS4 permit to include a compliance schedule to achieve effluent limitations derived from wasteload allocations.

Where a TMDL implementation schedule has been established through a Basin Plan Amendment, it is hereby incorporated into this Order as a compliance schedule to

³ Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/L, while more recent data from the mass emissions station in the Santa Clara River (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather, suggesting that storm water has a diluting effect on chloride concentrations in the receiving water.

⁴ See In re Star-Kist Caribe, Inc., (Apr. 16, 1990) 3 E.A.D. 172, 175, modification denied, 4 E.A.D. 33, 34 (EAB 1992)).

⁵ TMDL implementation plans consist of those measures, along with a schedule for their implementation, that the Water Boards determine are necessary to correct an impairment. The NPDES implementation measures are thus required by sections 303(d) and 402(p)(3)(B)(iii) of the CWA. State law also requires the Water Boards to implement basin plan requirements. (See Wat. Code §§ 13263, 13377; *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.)

⁶ See Gov. Code, § 11353, subd. (b). Every amendment to a Basin Plan, such as a TMDL and its implementation plan, requires approval by the State Water Board and OAL. When the TMDL and implementation plan is approved by OAL, it becomes a state regulation.

achieve interim and final WQBELs and corresponding receiving water limitations, in accordance with 40 CFR section 122.47. WQBELs must be consistent with the assumptions and requirements of any WLA, which includes applicable implementation schedules.⁷ California Water Code sections 13263 and 13377 state that waste discharge requirements must implement the Basin Plan.⁸ Therefore, compliance schedules for attaining WQBELs derived from WLAs must be based on a state-adopted TMDL implementation plan and cannot exceed the maximum time that the implementation plan allows.

In determining the compliance schedules, the Regional Water Board considered numerous factors to ensure that the schedules are as short as possible. Factors examined include, but are not limited to, the size and complexity of the watershed; the pollutants being addressed; the number of responsible agencies involved; time for Co-Permittees to negotiate memorandum of agreements; development of water quality management plans; identification of funding sources; determination of an implementation strategy based on the recommendations of water quality management plans and/or special studies; and time for the implementation strategies to yield measurable results. Compliance schedules may be altered based on the monitoring and reporting results as set forth in the individual TMDLs.

In many ways, the incorporation of interim and final WQBELs and associated compliance schedules is consistent with the iterative process of implementing BMPs that has been employed in the previous Los Angeles County MS4 Permits in that progress toward compliance with the final effluent limitations may occur over the course of many years. However, because the waterbodies in Los Angeles County are impaired due to MS4 discharges, it is necessary to establish more specific provisions in order to: (i) ensure measurable reductions in pollutant discharges from the MS4, resulting in progressive water quality improvements during the iterative process, and (ii) establish a final date for completing implementation of BMPs and, ultimately, achieving effluent limitations and water quality standards.

The compliance schedules established herein are consistent with the implementation plans established in the individual TMDLs. The compliance dates for meeting the final WQBELs and receiving water limitations for each TMDL are listed below in Table F-7.

⁷ See 40 C.F.R. § 122.44(d)(1)(vii)(B).

⁸ Cal. Wat. Code, § 13263, subd. (a) ("requirements shall implement any relevant water quality control plans that have been adopted"); Cal. Wat. Code, § 13377 ("the state board or the regional boards shall . . . issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the [CWA], thereto, together with any more stringent effluent standards or limitations necessary to implement waste quality control plans, or for the protection of beneficial uses, or to prevent nuisance"); *see also, State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.

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TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004			
Upper Santa Clara River Chloride TMDL	April 6, 2010			
Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only)		March 6, 2016		
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL				
Dry Weather				March 21, 2023
Wet Weather				March 21, 2029
Santa Monica Bay Beaches Bacteria TMDL				
Summer Dry Weather	July 15, 2006			
Winter Dry Weather	July 15, 2009			
Wet Weather			July 15, 2021	
Santa Monica Bay Nearshore and Offshore Debris TMDL			March 20, 2020	
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)		March 26, 2012		
Malibu Creek and Lagoon Bacteria TMDL				
Summer Dry Weather	January 24, 2009			
Winter Dry Weather	January 24, 2012			
Wet Weather			July 15, 2021	
Malibu Creek Watershed Trash TMDL		July 7, 2017		
Malibu Creek Watershed Nutrients TMDL (USEPA established)	March 21, 2003			
Ballona Creek Trash TMDL		September 30, 2015		
Ballona Creek Estuary Toxic Pollutants TMDL			January 11, 2021	
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL				
Dry Weather		April 27, 2013		
Wet Weather			July 15, 2021	

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TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Ballona Creek Metals TMDL				, , , ,
Dry Weather		January 11, 2016		
Wet Weather			January 11, 2021	
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)		March 26, 2012		
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL				
Dry Weather	March 18, 2007			
Wet Weather			July 15, 2021	
Marina del Rey Harbor Toxic Pollutants TMDL		March 22, 2016	March 22, 2021*	
Los Angeles Harbor Bacteria TMDL	March 10, 2010			
Machado Lake Trash TMDL		March 6, 2016		
Machado Lake Nutrient TMDL			September 11, 2018	
Machado Lake Pesticides and PCBs TMDL			September 30, 2019	
Dominguez Channel and Greater LA and LB Harbor Waters Toxic Pollutants TMDL				March 23, 2032
Los Angeles River Watershed Trash TMDL		September 30, 2016		
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004			
Los Angeles River and Tributaries Metals TMDL				
Dry Weather				January 11, 2024
Wet Weather				January 11, 2028
Los Angeles River Watershed Bacteria TMDL				
Dry Weather (Compliance dates range from 10 to 25 years)			March 23, 2022	March 23, 2037
Wet Weather				March 23, 2037
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)		March 26, 2012		

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TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Los Angeles Area Lakes TMDLs (USEPA established)		March 26, 2012		
San Gabriel River and Impaired Tributaries Metals and Selenium				
TMDL (USEPA established)	March 26, 2007			
Legg Lake Trash TMDL		March 6, 2016		
Los Cerritos Channel Metals TMDL (USEPA established)	March 17, 2010			
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and				
Metals TMDL			July 28, 2018	

* If an Integrated Water Resources Approach is approved and implemented then Permittees have an extended compliance deadline.

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#### 3. State Adopted TMDLs with Past Final Compliance Deadlines

As required by federal regulations, this Order includes WQBELs necessary to achieve applicable wasteload allocations assigned to MS4 discharges. In some cases, the deadline specified in the TMDL implementation plan for achieving the final wasteload allocation has passed. (See Table F-8) This Order requires that Permittees comply immediately with WQBELs and/or receiving water limitations for which final compliance deadlines have passed.

#### Table F-8. State-Adopted TMDLs with Past Final Implementation Deadlines

	Final Compliance
TOTAL MAXIMUM DAILY LOADS (TMDL)	date has Passed
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004
Upper Santa Clara River Chloride TMDL	April 6, 2010
Santa Monica Bay Beaches Bacteria TMDL Summer Dry Weather only	July 15, 2006
Santa Monica Bay Beaches Bacteria TMDL Winter Dry Weather only	July 15, 2009
Malibu Creek and Lagoon Bacteria TMDL Summer Dry Weather only	January 24, 2009
Malibu Creek and Lagoon Bacteria TMDL Winter Dry Weather only	January 24, 2012
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL Dry Weather Year-round only	March 18, 2007
Los Angeles Harbor Bacteria TMDL	March 10, 2010
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004

Where a Permittee determines that its MS4 discharge may not meet the final WQBELs for the TMDLs in Table F-8 upon adoption of this Order, the Permittee may request a time schedule order (TSO) from the Regional Water Board. TSOs are issued pursuant to California Water Code section 13300, whenever a Water Board "finds that a discharge of waste is taking place or threatening to take place that violates or will violate [Regional Water Board] requirements." Permittees may individually request a TSO, or may jointly request a TSO with all Permittees subject to the WQBELs and/or receiving water limitations. Permittees must request a TSO to achieve WQBELs for the TMDLs in Table F-8 no later than 45 days after the date this Order is adopted.

In the request, the Permittee(s) must include, at a minimum, the following:

- a. Location specific data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
- b. A detailed description and chronology of structural controls and source control efforts, including location(s) of implementation, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
- **c.** A list of discharge locations for which additional time is needed to achieve the water quality based effluent limitations and/or receiving water limitations;
- **d.** Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations for each location identified in Part VI.E.3.c, above;

- e. A detailed time schedule of specific actions the Permittee will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations at each location identified in Part VI.E.3.c, above;
- f. A demonstration that the time schedule requested is as short as possible, consistent with California Water Code section 13385(j)(3)(C)(i), taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and
- **g.** If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:
  - i. Effluent limitation(s) for the pollutant(s) of concern; and
  - ii. Actions and milestones leading to compliance with the effluent limitation(s).

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WQBELs and corresponding receiving water limitations for which the final compliance deadline has passed if a Permittee is fully complying with the requirements of a TSO to resolve exceedances of the WQBELs for the specific pollutant(s) in the MS4 discharge.

# 4. USEPA Established TMDLs

USEPA has established seven TMDLs that include wasteload allocations for MS4 discharges covered by this Order (See Table F-9). Five TMDLs were established since 2010, one in 2007, and one in 2003.

# Table F-9.USEPA Established TMDLs with WLAs Assigned to MS4Discharges

Effective Date
March 26, 2012
March 17, 2010
March 26, 2007
March 21, 2003

In contrast to State-adopted TMDLs, USEPA established TMDLs do not contain an implementation plan or schedule. The Clean Water Act does not allow USEPA to either adopt implementation plans or establish compliance schedules for TMDLs that is establishes. Such decisions are generally left with the States. The Regional Water Board could either (1) adopt a separate implementation plan as a Basin Plan Amendment for each USEPA established TMDL, which would allow inclusion of compliance schedules in the permit where applicable, or (2) issue a Permittee a schedule leading to full compliance in a separate enforcement order (such as a Time

Schedule Order or a Cease and Desist Order). To date, the Board has not adopted a separate implementation plan or enforcement order for any of these TMDLs. As such, the final WLAs in the seven USEPA established TMDLs identified above become effective immediately upon establishment by USEPA and placement in a NPDES permit.

The Regional Water Board's decision as to how to express permit conditions for USEPA established TMDLs is based on an analysis of several specific facts and circumstances surrounding these TMDLs and their incorporation into this Order. First, since these TMDLs do not include implementation plans, none of these TMDLs have undergone a comprehensive evaluation of implementation strategies or an evaluation of the time required to fully implement control measures to achieve the final WLAs. Second, given the lack of an evaluation, the Regional Water Board is not able to adequately assess whether Permittees will be able to immediately comply with the WLAs at this time. Third, the majority of these TMDLs were established by USEPA recently (i.e., since 2010) and permittees have had limited time to plan for and implement control measures to achieve compliance with the WLAs. Lastly, while federal regulations do not allow USEPA to establish implementation plans and schedules for achieving these WLAs, USEPA has nevertheless included implementation recommendations regarding MS4 discharges as part of six of the seven of these TMDLs. The Regional Water Board needs time to adequately evaluate USEPA's recommendations. For the reasons above, the Regional Water Board has determined that numeric water quality based effluent limitations for these USEPA established TMDLs are infeasible at the present time. The Regional Water Board may at its discretion revisit this decision within the term of the Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires Permittees subject to WLAs in USEPA established TMDLs to propose and implement best management practices (BMPs) that will be effective in achieving the numeric WLAs. Permittees will propose these BMPs to the Regional Water Board in a Watershed Management Program Plan, which is subject to Regional Water Board Executive Officer approval. As part of this Plan, Permittees are also required to propose a schedule for implementing the BMPs that is as short as possible. The Regional Water Board finds that, at this time, it is reasonable to include permit conditions that require Permittees to develop specific Watershed Management Program plans that include interim milestones and schedules for actions to achieve the WLAs. These plans will facilitate a comprehensive planning process, including coordination among co-permittees where necessary, on a watershed basis to identify the most effective watershed control measures and implementation strategies to achieve the WLAs.

At a minimum, the Watershed Management Program Plan must include the following data and information relevant to the USEPA established TMDL:

- Available data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
- **ii.** A detailed time schedule of specific actions the Permittee will take in order to achieve the WLA(s);
- **iii.** A demonstration that the time schedule requested is as short as possible, taking into account the time since USEPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);
- a. For the Malibu Creek Nutrient TMDL established by USEPA in 2003, in no case shall the time schedule to achieve the final numeric WLAs exceed five years from the effective date of this Order; and
- iv. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements, including numeric milestones, and the date(s) for their achievement.

Each Permittee subject to a WLA in a TMDL established by USEPA since 2010 must submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than one year after the effective date of this Order.

Each Permittee subject to a WLA in a TMDL established by USEPA prior to 2010 must submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer for approval no later than six months after the effective date of this Order..

Based on the nature and timing of the proposed watershed control measures, the Regional Water Board will consider appropriate actions on its part, which may include: (1) no action and continued reliance on permit conditions that require implementation of the approved watershed control measures throughout the permit term; (2) adopting an implementation plan and corresponding schedule through the Basin Plan Amendment process and then incorporating water quality based effluent limitations and a compliance schedule into this Order consistent with the State-adopted implementation plan; or (3) issuing a time schedule order to provide the necessary time to fully implement the watershed control measures to achieve the WLAs.

If a Permittee chooses not to submit a Watershed Management Program Plan, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and necessary revisions are not made within 90 days of written notification to the Permittee that that plan is inadequate, the Permittee will be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WLAs and corresponding receiving water limitations for USEPA established TMDLs if a Permittee has developed and is implementing an approved Watershed Management Program to achieve the WLAs in the USEPA TMDL and the associated receiving water limitations.

#### E. Other Provisions

#### 1. Legal Authority

Adequate legal authority is required to implement and enforce most parts of the Minimum Control Measures and all equivalent actions if implemented with a Watershed Management Program (See 40 CFR section 122.26(d)(2)(i)(A through F) and 40 CFR section 122.26(d)(2)(iv). Without adequate legal authority the MS4 would be unable to perform many vital functions such as performing inspections, requiring remedies, and requiring installation of control measures. In addition, the Permittee would not be able to penalize and/or attain remediation costs from violators.

# 2. Fiscal Resources

The annual fiscal analysis will show the allocated resources, expenditures, and staff resources necessary to comply with the permit, and implement and enforce the Permittee's Watershed Management Program (See 40 CFR section 122.26(d)(2)(vi). The annual analysis is necessary to show that the Permittee has adequate resources to meet all Permit Requirements. The analysis can also show year-to-year changes in funding for the storm water program. A summary of the annual analysis must be reported in the annual report. This report will help the Permitting Authority understand the resources that are dedicated to compliance with this permit, and to implementation and enforcement of the Watershed Management Program, and track how this changes over time. Furthermore, the inclusion of the requirement to perform a fiscal analysis annually is similar to requirements included in Order No. 01-182 permit as well as the current Ventura County MS4 permit.

#### 3. Responsibilities of the Permittees

Because of the complexity and networking of the storm drain system and drainage facilities within and tributary to the LA MS4, the Regional Water Board adopted an area-wide approach in permitting storm water and urban runoff discharges. Order No. 01-182 was structured as a single permit whereby individual Permittees were assigned uniform requirements and additional requirements were assigned to the Principal Permittee (Los Angeles County Flood Control District). Because the Los Angeles County Flood Control District does not own or control land where most pollutants originate, it is relieved as Principal Permittee. This permit does not designate a principal Permittee and as such requires each Permittee to implement provisions as a separate entity. Furthermore it does not hold a Permittee responsible for implementation of provisions applicable to other Permittees.

Part VI.A.4.a requires inter and intra-agency coordination to facilitate implementation of this Order. This requirement is based on 40 CFR section 122.26(d)(2)(iv) which requires "a comprehensive planning process which public participation and where

necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable [...]."

# 4. Reopener and Modification Provisions

These provisions are based on 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64, and are also consistent with Order No. 01-182. The Regional Water Board may reopen the permit to modify permit conditions and requirements, as well as revoke, reissue, or terminate in accordance with federal regulations. Causes for such actions include, but are not limited to, endangerment to human health or the environment; acquisition of newly-obtained information that would have justified the application of different conditions if known at the time of Order adoption; to incorporate provisions as a result of new federal or state laws, regulations, plans, or policies (including TMDLs and other Basin Plan amendments); modification in toxicity requirements; violation of any term or condition in this Order; and/or minor modifications to correct typographical errors or require more frequent monitoring or reporting by a Permittee.

# XIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. California Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The MRP (Attachment E of this Order) establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Order.

#### A. Integrated Monitoring Plans

#### 1. Integrated Monitoring Program and Coordinated Integrated Monitoring Program

As discussed in Part VI.B of this Fact Sheet, the purpose of the Watershed Management Programs is to provide a framework for Permittees to implement the requirements of this Order in an integrated and collaborative fashion and to address water quality priorities on a watershed scale. Additionally, the Watershed Management Programs are to be designed to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable water quality based effluent limitations that implement TMDLs, (ii) do not cause or contribute to exceedances of receiving water limitations, and (iii) for non-storm water discharges from the MS4, are not a source of pollutants to receiving waters. This Order provides options for each Permittee to develop and implement an Integrated Monitoring Program (IMP), or alternatively, individual Permittee(s) may cooperate with other Permittees to develop a Coordinated Integrated Monitoring Program (CIMP). Both the IMP and CIMP are intended to facilitate the effective and collaborative monitoring of receiving waters, storm water, and non-storm water discharges and to report the results of monitoring to the Regional Water Board.

The key requirements for Watershed Management Programs are included in Part VI.C of this Order. The IMP and CIMP requirements within the MRP largely summarize the requirements and reinforce that, at a minimum, the IMP or CIMP must address all TMDL and Non-TMDL monitoring requirements of this Order, including receiving water monitoring, storm water outfall based monitoring, non-storm water outfall based monitoring, and regional water monitoring studies.

Both the IMP and CIMP approach provides opportunities to increase the cost efficiency and effectiveness of the Permittees monitoring program as monitoring can be designed, prioritized and implemented on a watershed basis. The IMP/CIMP approach allows the Permittees to prioritize monitoring resources between watersheds based on TMDL Implementation and Monitoring Plan schedules, coordinate outfall based monitoring programs and implement regional studies. Cost savings can also occur when Permittees coordinate their monitoring programs with other Permittees.

#### B. TMDL Monitoring Plans

Monitoring requirements established in TMDL Monitoring Plans, presented in Table E-1. Approved TMDL Monitoring Plans by Watershed Management Area, were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

#### C. Receiving Water Monitoring

The purposes of receiving water monitoring are to measure the effects of storm water and non-storm water discharges from the MS4 to the receiving water, to identify water quality exceedances, to evaluate compliance with TMDL WLAs and receiving water limitations, and to evaluate whether water quality is improving, staying the same or declining.

#### 1. Receiving Water Monitoring Stations

Receiving water monitoring is linked to outfall based monitoring in order to gauge the effects of MS4 discharges on receiving water. Receiving water monitoring stations must be downstream of linked outfall monitoring stations.

The IMP, CIMP or stand-alone receiving monitoring plan (in the case of jurisdictional monitoring) must include a map identifying proposed wet weather and dry-weather monitoring stations. Receiving water monitoring stations may include historical mass emission stations, TMDL compliance monitoring stations, or other selected stations. The Permittee must describe how monitoring at the proposed locations will accurately characterize the effects of the discharges from the MS4 on the receiving water, and meet other stated objectives. The plan must also state whether historical mass emission stations will continue to be monitored and describe the value of past receiving water monitoring data in performing trends analysis to assess whether water quality if improving, staying the same or declining.

# 2. Minimum Monitoring Requirements

Receiving water is to be monitored during both dry and wet weather conditions to assess the impact of non-storm water and storm water discharges. Wet weather and dry weather are defined in each watershed, consistent with the definitions in TMDLs approved within the watershed. Monitoring is to commence within 6 hours of the commencement of linked outfall monitoring. At a minimum, the parameters to be monitored and the monitoring frequency are the same as those required for the linked outfalls.

# D. Outfall Based Monitoring

The MRP requires Permittees to conduct outfall monitoring, linked with receiving water monitoring, a study of Pyrethroids and their effects in receiving waters and bioassessment. The MRP allows the Permittees flexibility to integrate the minimum requirements of this Order, applicable TMDL monitoring plans and other regional monitoring obligations into a single IMP or within a CIMP.

Per Part VI.A.2 of this Order, the Permittee must establish a storm drain system map to aid in the development of the outfall monitoring plan and to assist the Regional Water Board in reviewing the logic and adequacy of the number and location of outfalls selected for monitoring. The map must include the storm drain network, receiving waters, other surface waters that may impact hydrology, including dams and dry weather diversions. In addition, the map must identify the location and identifying code for each major outfall within the Permittee's jurisdiction. The map must include overlays including jurisdictional boundaries, subwatershed boundaries and storm drain outfall catchment boundaries. The map must distinguish between storm drain catchment drainage areas and subwatershed drainage areas, as these may differ. In addition, the map must include overlays displaying land use, impervious area and effective impervious area (if available). To the extent known, outfalls that convey significant non-stormwater discharges (see Part I.F to this Fact Sheet), must also be identified on the map, and the map must be updated annually to include the total list of known outfalls conveying significant flow of non-storm water discharge.

#### E. Storm Water Outfall Based Monitoring

The purpose of the outfall monitoring plan is to characterize the storm water discharges from each Permittee's drainages within each subwatershed. Outfall based monitoring is also conducted to assess compliance with WQBELs. Under an IMP approach, each Permittee must identify at least one outfall within each subwatershed (HUC 12) within its jurisdictional boundary to monitor storm water discharges. The selected outfall(s) should receive drainage from an area representative of the land uses within the portion of its jurisdiction that drains to the subwatershed, and not be unduly influenced by storm water discharges from upstream jurisdictions or other NPDES discharges. It is assumed that storm water runoff quality will be similar for similar land use areas, and therefore runoff from a representative area will provide sufficient characterization of the entire drainage area. Factors that may impact storm water runoff quality include the

land use (industrial, residential, commercial) and the control measures that are applied. Factors that may impact storm water runoff volume include percent effective impervious cover (connected to the storm drain system), vegetation type, soil compaction and soil permeability.

Storm water outfall monitoring is linked to receiving water monitoring (see above). Monitoring must be conducted at least three times per year during qualifying rain events, including the first rain event of the year and conducted approximately concurrently (within 6 hours) before the commencement of the downstream receiving water monitoring.

Monitoring is conducted for pollutants of concern including all pollutants with assigned WQBELs. Parameters to be monitored during wet weather include: flow, pollutants subject to a TMDL applicable to the receiving water, pollutants listed on the Clean Water Act Section 303(d) list for the receiving water or a downstream receiving water. Flow is necessary to calculate pollutant loading. Sampling requirements, including methods for collecting flow-weighted composite samples, are consistent with the Ventura County Monitoring program (Order No. C17388).

For water bodies listed on the Clean Water Act section 303(d) list as being impaired due to sedimentation, siltation or turbidity, total suspended solids (TSS) and suspended sediment concentration (SSC) must be analyzed. TSS is the parameter most often required in NPDES permits to measure suspended solids. However, studies conducted by the United States Geological Survey (USGS) have found that the TSS procedure may not capture the full range of sediment particle sizes contributing to sediment impairments. Therefore both TSS and SSC are required in this Order.

For freshwater, the following field measurements are also required: hardness, pH, dissolved oxygen, temperature, and specific conductivity. Hardness, pH and temperature are parameters impacting the effect of pollutants in freshwater (i.e., metals water quality standards are dependent on hardness, ammonia toxicity is dependent on pH and temperature. Temperature and dissolved oxygen are interdependent and fundamental to supporting aquatic life beneficial uses. Specific conductivity is a parameter important to assessing potential threats to MUN and freshwater aquatic life beneficial uses.

Aquatic toxicity monitoring is required in the receiving water twice per year during wet weather conditions. Aquatic toxicity is a direct measure of toxicity and integrates the effects of multiple synergistic effects of known and unidentified pollutants. When samples are found to be toxic, a Toxicity Identification Evaluation must be performed in an attempt to identify the pollutants causing toxicity. Aquatic toxicity is required to be monitored in the receiving water twice per year during wet-weather rather than three times per year due to the expense of the procedure.

The monitoring data is to be accompanied by rainfall data and hydrographs, and a narrative description of the storm event, consistent with the requirements in the Ventura County MS4 (Monitoring Program—No. CI 7388). This information will allow the

Permittee and the Regional Water Board staff to evaluate the effects of differing storm events in terms of storm water runoff volume and duration and in-stream effects.

# F. Non-Stormwater Outfall-Based Screening and Monitoring Program

The non-storm water outfall screening and monitoring program is intended to build off of Permittees prior efforts under Order No. 01-182 to screen all outfalls within their MS4 to identify illicit connections and discharges. Under this Order, the Permittees will use the following step-wise method to assess non-storm water discharges.

- Develop criteria or other means to ensure that all outfalls with significant non-storm water discharges are identified and assessed during the term of this Order.
- For outfalls determined to have significant non-storm water flow, determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, or from unknown sources.
- Refer information related to identified IC/IDs to the IC/ID Elimination Program (Part VI.D.9 of this Order) for appropriate action.
- Based on existing screening or monitoring data or other institutional knowledge, assess the impact of non-storm water discharges (other than identified IC/IDs) on the receiving water.
- Prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules.
- Conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
- Conduct monitoring or other investigations to identify the source of pollutants in nonstorm water discharges.
- Use results of the screening process to evaluate the conditionally exempt non-storm water discharges identified in Part III.A.2 and III.A.3 in this Order and take appropriate actions pursuant to Part III.A.4.d of this Order for those discharges that have been found to be a source of pollutants. Any future reclassification shall occur per the conditions in Parts III.A.2 or III.A.6 of this Order.

The screening and monitoring program is intended to maximize the use of Permittee resources by integrating the screening and monitoring process into existing or planned IMP/CIMP efforts. It is also intended to rely on the illicit discharge source investigation and elimination requirements in Part VI.D.9 of this Order and the MS4 Mapping requirements in Part VII.A of the MRP.

The screening and source identification component of the program is used to identify the source(s) and point(s) of origin of the non-storm water discharge. The Permittee is required to develop a source identification schedule based on the prioritized list of outfalls exhibiting significant non-storm water discharges. The schedule shall ensure that source investigations are to be conducted for no less than 25% of the outfalls in the inventory within three years of the effective date of this Order and 100% of the outfalls

within 5 years of the effective date of this Order. This will ensure that all outfalls with significant non-storm water discharges will be assessed within the term of this Order.

Additional requirements have been included to require the Permittee to develop a map and database of all outfalls with known non-storm water discharges. The database and map are to be updated throughout the term of this Order. If the source of the non-storm water discharge is determined to be an NPDES permitted discharge, a discharge subject to a Record of Decision approved by USEPA pursuant to section 121 of CERCLA, a conditionally exempt essential non-storm water discharge, or entirely comprised of natural flows as defined at Part III.A.d of this Order, the Permittee need only document the source and report to the Regional Water Board within 30 days of determination and in the next annual report. Likewise, if the discharge is determined to originate in an upstream jurisdiction, the Permittee is to provide notice and all characterization data to the upstream jurisdiction within 30 days of determination.

However, if the source is either unknown or a conditionally exempt non-essential nonstorm water discharge, each Permittee shall conduct monitoring required in Part IX.F of the MRP. Special provisions are also provided if the discharge is found to result from multiple sources.

The parameters to be monitored include flow rate, pollutants assigned a WQBEL or receiving water limitation to implement TMDL provisions for the respective receiving water, as identified in Attachments L - R of this Order, non-storm water action levels as identified in Attachment G of this Order, and CWA Section 303(d) listed pollutants for the respective receiving water. Aquatic Toxicity required only when receiving water monitoring indicates aquatic toxicity.

In an effort to provide flexibility and allow the Permittee to prioritize its monitoring efforts, the outfall based monitoring can be integrated within an IMP/CIMP. For outfalls subject to a dry weather TMDL, monitoring frequency is established per the approved TMDL Monitoring Program.

Unless specified in an approved IMP/CIMP, outfalls not subject to dry weather TMDLs must be monitored at least four times during the first year of monitoring. Due to the expense, Aquatic Toxicity monitoring is only required twice per year. The four times per year monitoring is reflective of the potential for high variability in the quality and volume of non-storm water discharges and duration as opposed to storm water discharges.

Collected monitoring data is to be compared against applicable receiving water limitations, water quality based effluent limitations, non-storm water action levels, or exhibited Aquatic Toxicity as defined in the Parts XII.F and G of the MRP and all exceedances are to be reported in the Integrated Monitoring Compliance Report required in Part XIX.A.5 of the MRP.

After the first year, monitoring for specific pollutants may be reduced to once per year, if the values reported in the first year do not exceed applicable non-storm water WQBELs, non-storm water action levels, or a water quality standard applicable to the receiving water.

After two years of monitoring, the Permittee may submit a written request to the Executive Officer of the Regional Water Board requesting to eliminate monitoring for specific pollutants based on an analysis demonstrating that there is no reasonable potential for the pollutant to exist in the discharge at a concentration exceeding applicable water quality standards.

# 1. Dry Weather Screening Monitoring

#### a. Background

Clean Water Act section 402(p) regulates discharges from municipal separate storm sewer systems (MS4s). Clean Water Act section 402(p)(3)(B)(ii) requires the Permittees to effectively prohibit non-storm water from entering the MS4.

Non-exempted, non-storm water discharges are to be effectively prohibited from entering the MS4 or become subject to another NPDES permit (55 Fed. Reg. 47990, 47995 (Nov.16, 1990)). Conveyances which continue to accept non-exempt, non-storm water discharges do not meet the definition of MS4 and are not subject to Clean Water Act section 402(p)(3)(B) unless the discharges are issued separate NPDES permits. Instead, conveyances that continue to accept non-exempt, non-storm water discharges that do not have a separate NPDES permit are subject to sections 301 and 402 of the CWA (55 Fed. Reg. 47990, 48037 (Nov. 16, 1990)).

In part, to implement these statutory provisions, Order No. 01-182 included nonstorm water discharge prohibitions. Several categories of non-storm water discharges are specifically identified as authorized or conditionally exempt nonstorm water discharges, including:

- i. Discharges covered under an NPDES permit
- ii. Discharges authorized by USEPA under CERCLA
- iii.Discharges resulting from natural flows
- iv.Discharges from emergency fire fighting activity
- v. Some Categories of Discharges incidental to urban activities

Further, as another mechanism to effectively prohibit non-storm water discharges into the MS4, Order No. 01-182 also requires the Los Angeles County MS4 Co-Permittees to implement an illicit connections and illicit discharges elimination program as part of their storm water management program pursuant to 40 CFR section 122.26(d)(2)(iv)(B).

Finally, Monitoring and Reporting Program CI 6948, a part of Order No. 01-182, required dry weather monitoring at the Mass Emissions Stations (MES) to estimate pollutant contributions and determine if the MS4 is contributing to exceedances of applicable water quality standards during dry weather.

# b. Evaluation of Dry Weather Data

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in the Basin Plan and other state plans and policies, or any applicable water quality criteria contained in the California Toxics Rule (CTR) and National Toxics Rule (NTR).

In an effort to evaluate the Discharger's program to effectively prohibit non-storm water discharges into the MS4, as well as to determine whether MS4 discharges are potentially contributing to exceedances of water quality standards, the Reasonable Potential Analysis (RPA) process was used as a screening tool. In doing so, dry weather monitoring data submitted by the Discharger was evaluated to identify where non-storm water discharges may impact beneficial uses and where additional monitoring and/or investigations of non-storm water discharges should be focused.

Order No. 01-182 and Monitoring and Reporting Program No. 6948 required the Discharger to implement core monitoring at seven mass emission stations:

- Ballona Creek
- Malibu Creek
- Los Angeles River
- San Gabriel River (representing the upper portion of the San Gabriel River Watershed Management Area)
- Coyote Creek (representing the lower portion of the San Gabriel River Watershed Management Area)
- Dominguez Channel
- Santa Clara River

In addition to wet weather monitoring requirements at each of the mass emission stations, a minimum of two dry weather samples were required each year. Monitoring was required for conventional pollutants (BOD, TSS, pH, fecal coliform, oil and grease), priority pollutants, and a variety of other nonconventional pollutants (e.g., nutrients, dissolved oxygen, salinity/conductivity).

Dry weather monitoring data were compiled from Annual Stormwater Monitoring Reports submitted by the Los Angeles County Department of Public Works for the period from 2005 to 2011 to reflect the most recent data. The Annual Stormwater Monitoring Reports include the results for dry weather samples that were collected from 2005 to 2011 on 15 different dates. For each monitored parameter, the most stringent applicable water quality objective/criterion was identified from the Basin Plan and the CTR at 40 CFR section 131.38. The following assumptions were made when conducting the analysis:

- The mass emissions stations represented only freshwater segments. Accordingly, CTR criteria for the protection of freshwater aquatic life were selected for comparison to monitoring results.
- For hardness-dependent metals, criteria were derived by using the lowest reported dry-weather hardness value for each mass emission station for the period of 2005 to 2011.
- For screening purposes the criteria associated with the most protective beneficial use for any segment within the watershed was selected for comparison to monitoring results.
- Basin Plan surface water quality objectives for minerals (i.e., total dissolved solids, sulfate, and chloride) apply to specific stream reaches within each watershed and are provided in Chapter 3 of the Basin Plan. Where no specific objectives are identified, footnote f to Table 3-8 provides guidelines for protection of various beneficial uses. When guidelines were presented as a range, the most protective (low end of range) value was selected and applied according to beneficial uses in the watershed.
- With the exception of bacteria, the water quality objectives used for the analysis are the most current in effect. Since adoption of Order No. 01-182 in 2001, some Basin Plan objectives and CTR criteria have been amended. As a result, the pollutants monitored under the MRP for Order No. 01-182 may not necessarily reflect current objectives.
- E coli bacteria was not required as part of the MRP to Order No. 01-182, thus screening for bacteria was based solely on fecal coliform. Monitoring results for fecal coliform were compared to the Basin Plan fecal coliform objective in effect during the monitoring period. The Basin Plan objective for bacteria was amended in December 2011 to omit fecal coliform as a fresh water objective. The existing numeric bacteria objectives are expressed as a single sample maximum and a geometric mean. In this screening, limited data precluded calculation of geometric means, therefore, the geometric mean objective was treated as a "not-to-exceed" criterion for screening purposes. The geometric mean objective to protect primary contact recreation beneficial use (REC-1) uses in freshwaters).
- Within a given watershed, where the Basin Plan designates a "Potential" beneficial use of MUN, drinking water maximum contaminant levels (MCLs) were not applied as the most stringent objectives. Within a given watershed, where the Basin Plan designates "Potential" or "Intermittent" for beneficial uses other than MUN, the appropriate protective objectives were used for screening. This is consistent with Basin Plan requirements and existing permitting procedures.

The maximum reported pollutant concentration was compared to the most stringent applicable water quality objective to determine if there was potential for receiving water concentrations to exceed water quality objectives.

Table F-10 summarizes the results of the RPA analysis based on evaluation of the 15 sets of data for the period of 2005 to 2011 for each of the mass emission stations. Generally, all priority pollutant organic parameters were reported as below detection levels at practical quantitation levels (PQLs) consistent with the minimum levels (MLs) listed in the SIP. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported fecal coliform bacteria, cyanide, copper, and selenium concentrations appear to consistently exceed objectives/criteria in all watersheds at relatively high levels. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for mercury are largely due to analytical detection levels that were higher than the applicable criterion.

Doromotor	Santa Clara	Los Angeles	Dominguez	Ballana Creak	Maliku Creak	San Gabriel River	
Parameter	River	River	Channel	Ballona Creek	Malibu Creek	Upper Portion	Lower Portion
pН	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW Objective	No FW Objective)	No FW Objective				
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Chloride	15/15	15/15	No Objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	√1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective
Methylene Blue Active Substances	4/15	0/15	No Objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No Objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No Objective	No Objective	13/15	14/14	15/15
Turbidity ²	0/15	2/15	No Objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	1515	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/1)	0/15	0/15	10/10	0/15

Table F-10.Summary of LA County Watersheds and Frequency of Receiving WaterExceeding Criteria - 2005 to 2011- Dry Season Data Analysis¹

- ^{1.} Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.
- ^{2.} The Basin Plan objective for turbidity for the protection of MUN is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over natural conditions. Since inadequate data were available to assess criteria expressed as incremental changes, only the MCL was considered in the analysis.

#### c. Requirements for Controlling Non-Storm Water Discharges

The USEPA's approach for non-storm water discharges from MS4s is to regulate these discharges under the existing CWA section 402 NPDES framework for discharges to surface waters. The NPDES program (40 CFR section 122.44(d)) utilizes discharge prohibitions and effluent limitations as regulatory mechanisms to regulate non-storm water discharges, including the use of technology- and water quality-based effluent limitations. Non-numerical controls, such as BMPs for non-storm water discharges may only be authorized where numerical effluent limitations are infeasible.

As described in Table F-10 above, there were a number of pollutants for which it was determined that receiving water concentrations at the mass emission stations indicate possible exceedances of water quality standards within the watershed. However, for waterbody-pollutant combinations not subject to a TMDL, there is uncertainty regarding whether exceedances occurred within specific segments where standards apply; the extent to which non-storm water discharges from the MS4 have caused or contributed to any exceedances; and whether the exceedances are attributable to any one or more specific MS4 outfalls within the watershed management area.

Given the need for additional data on non-stormwater discharges from the MS4 where a TMDL has not been developed, USEPA and the State have used action levels as a means to gauge potential impact to water quality and to identify the potential need for additional controls for non-stormwater discharges in the future. If these action levels are exceeded, then additional requirements (e.g., numeric effluent limitations, increased monitoring, special studies, additional BMPs) are typically used to address the potential impacts. In this case, non-storm water action levels are applicable to non-storm water discharges from that MS4 outfall. Non-storm water discharges from the MS4 are those which occur during dry weather conditions. These action levels are not applied to storm water discharges, as defined within this Order. Storm water discharges regulated by this Order are required to meet the MEP standard and other provisions determined necessary by the State to control pollutants and have separate requirements under this Order.

The use of action levels in this Order does not restrict the Regional Water Boards ability to modify this Order in accordance with 40 CFR section 122.62 to include numeric effluent limitations should monitoring data indicate that controls beyond action levels are necessary to ensure that non-storm water discharges do not cause or contribute to exceedances of water quality standards.

# i. Approach for Deriving Action Levels

Where exceedances are indicated in Table F-10 and where a TMDL has not been developed, action levels are applied as a screening tool to indicate where non-storm water discharges, including exempted flows and illicit connections may be causing or contributing to exceedances of water quality objectives. Action levels in this Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan, the Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the CTR.

# (1) Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries

# Priority Pollutants Subject to the CTR

Priority pollutant water quality criteria in the CTR are applicable to all inland surface waters, enclosed bays, and estuaries. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with Section 131.38(c)(3):

- For waters in which the salinity is equal to or less than 1 part per thousand (ppt), the freshwater criteria apply.
- For waters in which the salinity is greater than 10 ppt 95 percent or more of the time, the saltwater criteria apply.
- For waters in which the salinity is between 1 ppt and 10 ppt, the more stringent of the freshwater or saltwater criteria apply.

For continuous discharges, 40 CFR section 122.45(d)(1) specifies daily maximum and average monthly effluent limitations. Because of the uncertainty regarding the frequency of occurrence and duration of nonstorm water discharges through the MS4, average monthly action levels (AMALs) and maximum daily action levels (MDALs) were calculated following the procedure based on the steady-state model, available in Section 1.4 of the SIP. The SIP procedures were used to calculate action levels for CTR priority pollutants and other constituents for which the Basin Plan contains numeric objectives.

Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credit is being allowed.

40 CFR section 122.45(c) requires that effluent limitations for metals be expressed as total recoverable concentration; therefore it is appropriate to include action levels also as a total recoverable concentration. The SIP requires that if it is necessary to express a dissolved metal value as a total recoverable and a site-specific translator has not yet been developed, the

Regional Water Board shall use the applicable conversion factor contained in the 40 CFR section 131.38.

Using nickel as an example, and assuming application of saltwater criteria (e.g., a situation where an MS4 outfall discharges to an estuary), the following demonstrates how action levels were established for this Order. The tables in Attachment H provide the action levels for each watershed management area addressed by this Order using the process described below.

The process for developing these limits is in accordance with Section 1.4 of the SIP. Two sets of AMAL and MDAL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health (consumption of organisms only). The AMALs and MDALs for aquatic life and human health are compared, and the most restrictive AMAL and the most restrictive MDAL are selected as the action level.

**Step 1:** For each constituent requiring an action level, identify the applicable water quality criteria or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state mass balance equation:

ECA = C + D(C-B) when C > B, and ECA = C when  $C \le B$ ,

Where:

- C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators (criteria for saltwater are independent of hardness and pH).
- D = The dilution credit, and
- B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

ECA = C

For nickel the applicable ECAs are:

 $ECA_{acute} = 75 \, \mu g/L$ 

ECA_{chronic}=  $8.3 \,\mu$ g/L

**Step 2:** For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the

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multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

LTA_{acute} = ECA_{acute} x Multiplier_{acute 99}

LTA_{chronic}= ECA_{chronic} x Multiplier_{chronic 99}

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. For nickel, a CV of 0.6 was assumed.

For nickel, the following data were used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

CV	ECA Multiplier _{acute}	ECA Multiplier _{chronic}
0.6	0.32	0.53

 $LTA_{acute} = 75 \ \mu g/L \ x \ 0.32 = 24 \ \mu g/L$ 

 $LTA_{chronic} = 8.3 \ \mu g/L \ x \ 0.53 = 4.4 \ \mu g/L$ 

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or LTA_{chronic}

For nickel, the most limiting LTA was the LTA_{chronic}

 $LTA_{nickel} = LTA_{chronic} = 4.4 \ \mu g/L$ 

**Step 4:** Calculate the action levels by multiplying the LTA by a factor (multiplier). Action levels are expressed as AMAL and MDAL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the action levels. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMAL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

AMAL_{aquatic life} = LTA x AMAL_{multiplier 95}

MDAL_{aquatic life} = LTA x MDAL_{multiplier 99}

AMAL multipliers are based on a 95th percentile occurrence probability, and the MDAL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For nickel, the following data were used to develop the AMAL and MDAL for action levels using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}
4	0.6	3.11	1.55

Therefore:

 $AMAL = 4.4 \ \mu g/L \ x \ 1.55 = 6.8 \ \mu g/L$ 

MDAL=  $4.4 \ \mu g/L \ x \ 3.11 = 14 \ \mu g/L$ 

**Step 5:** For the ECA based on human health, set the AMAL equal to the ECA_{human health}

AMAL_{human health} = ECA_{human health}

For nickel:

 $AMAL_{human health} = 4,600 \ \mu g/L$ 

**Step 6:** Calculate the MDAL for human health by multiplying the AMAL by the ratio of the Multiplier_{MDAL} to the Multiplier_{AMAL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

 $MDAL_{human health} = AMAL_{human health} \times (Multiplier_{MDAL} / Multiplier_{AMAL})$ 

For nickel, the following data were used to develop the MDAL_{human health}:



No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}	Ratio
4	0.6	3.11	1.55	2.0

For nickel:

MDAL_{human health}= 4,600  $\mu$ g/L x 2 = 9,200  $\mu$ g/L

**Step 7:** Select the lower of the AMAL and MDAL based on aquatic life and human health as the non-storm water action level for this Order.

AMAL _{aquatic life}	MDAL _{aquatic life}	AMAL _{human health}	MDAL _{human health}
6.8	14	4,600	9,200

For nickel, the lowest (most restrictive) levels are based on aquatic toxicity and serve as the basis for non-storm water action levels included in this Order.

# Basin Plan Requirements for Other Pollutants

A number of pollutants were identified that exceed applicable Basin Plan objectives. These objectives however, are not amenable to the SIP process for developing action levels.

Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Water Board on October 25, 2001, served as the basis for the action levels for bacteria. Subsequently, the Basin Plan was amended through Order No. R10-005 (effective on December 5, 2011) to remove the freshwater fecal coliform numeric objective while retaining the freshwater objective for *E. coli*. The dry-weather evaluation conducted for fecal coliform indicates of a need for a bacteria action level. Since the Basin Plan no longer contains freshwater objectives for fecal coliform, action levels have been developed for *E. coli* in freshwater. The current bacteria objectives (saltwater and freshwater) are applied directly to the MS4 outfalls discharging to freshwaters to serve as action levels.

The Basin Plan, in Tables 3-5 through 3-7, include chemical constituents objectives based on the incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. The Basin Plan in Tables 3-8 and 3-10 also includes mineral quality objectives that apply to specific watersheds and stream reaches and where indicated by the beneficial use of ground water recharge (GWR). These objectives contained in the Basin Plan are listed as not-to-exceed values. Consistent with the approach used by the Regional Water Board

in other Orders for dry weather discharges, these not-to-exceed values will be applied as AMALs in this Order.

# (2) Discharges to the Surf Zone

From the Table B water quality objectives of the Ocean Plan, action levels are calculated according to Equation 1 of the Ocean Plan for all pollutants:

Ce = Co + Dm(Co-Cs)

Where:

- Ce = the Action Level  $(\mu g/L)$
- Co = the water quality objective to be met at the completion of initial dilution ( $\mu$ g/L)
- $Cs = background seawater concentration (\mu g/L)$
- Dm = minimum probable initial dilution expressed as parts seawater per part wastewater

The Dm is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. It is conservatively assumed that when non-storm water discharges to the surf zone occur, that conditions are such that no rapid mixing would occur. Therefore, an initial dilution is not allowed and the formula above reduces to:

Ce = Co

The following demonstrates how the action levels for copper are established.

Copper

Ce =  $3 \mu g/L$  (6-Month Median) Ce =  $12 \mu g/L$  (Daily Maximum) Ce =  $30 \mu g/L$  (Instantaneous Maximum)

#### ii. Applicability of Action Levels

The action levels included in this Order apply to pollutants in non-storm water discharges from the MS4 to receiving waters that are not already subject to WQBELs to implement TMDL wasteload allocations applicable during dry weather.

This Order requires outfall-based monitoring throughout each Watershed Management Area, including monitoring during dry weather. The dry weather

monitoring data will be evaluated by the Permittee(s) in comparison to all applicable action levels.

# iii. Requirements When Action Levels are Exceeded

When monitoring data indicates an action level is exceeded for one or more pollutants, then the Permittee will be required to implement actions to identify the source of the non-storm water discharge, and depending on the identified source, implement an appropriate response. With respect to action levels, the Permittee will have identified appropriate procedures within the Watershed Management Program (Part VI.C) and the Illicit Connection and Illicit Discharge Elimination Program (Part VI.D.9).

#### G. New Development/Re-Development Effectiveness Monitoring

This Order requires the use of Low Impact Development (LID) designs to reduce storm water runoff (and pollutant discharges) from new development or re-development projects. In areas that drain to water bodies that have been armored or are not natural drainages, the goal of this requirement is to protect water quality by retaining on-site the storm water runoff from the 85th percentile storm event. This is the design storm used throughout most of California for water quality protection. If it is not technically feasible due to site constraints (e.g., close proximity to a drinking water supply, slope instability) or if instead the project proponent is proposing to supplement a groundwater replenishment project, the project proponent may provide treatment BMPs to reduce pollutant loading in storm water runoff from the project site. Flow through treatment BMPs are less effective in reducing pollutant loadings than on-site retention for the design storm. Therefore the project proponent must mitigate the impacts further by providing for LID designs at retrofit projects or other off-site locations within the same subwatershed. The effectiveness monitoring is designed to assess and track whether post construction operation of the LID designs are effective in retaining the design storm runoff volume.

For projects located in natural drainages, the goal of the LID design is to retain the predevelopment hydrology, unless a water body is not susceptible to hydromodification effects (e.g., estuaries or the ocean). Smaller projects that will disturb less than 50 acres of land are presumed to meet the criteria if the project retains the storm water runoff from the 95th percentile storm. The effectiveness monitoring in this situation should be design to confirm that storm water runoff is not occurring for any storm at or less than the 95th percentile storm. Projects may also demonstrate compliance by showing that the erosion potential will be approximately 1 as described in Attachment J of this Order. For larger projects, the project proponent may be required to conduct modeling to demonstrate compliance by comparing the hydrographs of a two-year storm for the pre-development and post-development conditions, or by comparing the flow duration curves for a reference watershed and the post project condition. Flow monitoring will be required to substantiate the simulated hydrographs or flow duration curves.

### H. Regional Studies

### 1. Pyrethroid Insecticides Study Requirements

In addition to routine monitoring, this Order requires the Permittees to conduct regional studies of Pyrethroid toxicity¹ in receiving waters as Pyrethroid toxicity has become an emerging issue in urban drainages. The Pyrethroid Toxicity monitoring program required in this Order is based on the Ventura County MS4 Monitoring and Reporting Plan.

The results of the receiving water monitoring, Pyrethroid Study and bioassessment surveys may be used in to optimize Watershed Management Program actions, as described in Part VI.C. of this Order (Watershed Management Programs).

### 2. Southern California Stormwater Monitoring Coalition Watershed Monitoring Program

Also, as a condition to this Order, Permittees must participate in the bioassessment studies conducted under the Southern California Stormwater Monitoring Coalition Watershed Monitoring Program. Bioassessment provides a direct measure of whether aquatic life beneficial uses are fully supported and integrates the effects of multiple factors including pollutant discharges, changes in hydrology, geomorphology, and riparian buffers.

### I. Aquatic Toxicity Monitoring Methods

Based on the stated goals of the CWA, the USEPA and individual states implement three approaches to monitoring water quality. These approaches include chemicalspecific monitoring, toxicity testing, and bioassessments (USEPA 1991a). Each of the three approaches has distinct advantages and all three work together to ensure that the physical, chemical and biological integrity of our waters are protected. Water quality objectives have been developed for only a limited universe of chemicals. For mixtures of chemicals with unknown interactions or for chemicals having no chemical-specific objectives, the sole use of chemical-specific objectives to safeguard aquatic resources would not ensure adequate protection. Aquatic life in southern California coastal watersheds are often exposed to nearly 100% effluent from wastewater treatment plants, urban runoff, or storm water; therefore, toxicity testing and bioassessments are also critical components for monitoring programs as they offer a more direct and thorough confirmation of biological impacts. The primary advantage of using the toxicity testing approach is that this tool can be used to assess toxic effects (acute and chronic) of all the chemicals in aqueous samples of effluent, receiving water, or storm water. This allows the cumulative effect of the aqueous mixture to be evaluated, rather than

¹ Weston et al. 2006. *Pyrethroid Pesticide Insecticides and Sediment Toxicity in Urban Creeks from California and Tennessee*. Environ. Sci. Technol. 2006. 40, 1700-1706.

Holmes et al. 2008. Statewide Investigation of the Role of Pyrethroid Pesticides in Sediment Toxicity in California's Urban Waterways. Environ. Sci. Tehcnol.2008. 7003-7009.

the toxic responses to individual chemicals (USEPA, EPA Regions 8, 9, and 10 Toxicity Training Tool, January 2010).

Based on available data from the LA County MS4 Permit Annual Monitoring Reports, samples collected at mass emissions stations during both wet weather and dry weather have been found to be toxic in the San Gabriel River, Coyote Creek, the Los Angeles River, Dominguez Channel, Ballona Creek, Malibu Creek, and the Santa Clara River, demonstrating the need for this toxicity monitoring requirement (see Table below).

Summary of Toxicity by Watershed							
Source and Season	San Gabriel River	Coyote Creek	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	Santa Clara River
		Integrated Re	ceiving Water	Impacts Report	: (1994-2005	)	
Wet		CDS, CDR,		CDS, CDR,			
Weather	-	SUF	CDS, SUF	SUF	CDR, SUF	CDR	CDS N
Dry							
Weather	-	SUF	SUF	SUF	SUF	-	
		Annu	al Monitoring	Reports (2005-2	2010)		
			Wet W	/eather			
				CDS, CDR,			
2005-06	-	-	SUF	SUF	SUF	-	- 1
2006-07	SUF	SUF	SUF	SUF	SUF	SUF	SUF
2007-08	SUF	-	-	SUF	-	CDS,CDR,SUF	SUF
2008-09	-	SUF	SUF	-	SUF	CDS,CDR,SUF	-
2009-10	-	-	-	-	-	-	- V
			Dry W	eather			
2005-06	-	-	-	-	_	CDS,CDR	_ <b>_</b>
2006-07	-	-	-	-	SUF	-	-
2007-08	-	-	CDS,CDR	-	SUF	-	-
2008-09	-	-	SUF	-	-	-	-
2009-10	-	-	-	-	-	-	-

Notes:

CDS= Ceriodaphnia survival toxicity

SUF= Sea Urchin fertilization toxicity

CDR= Ceriodaphnia reproduction

toxicity

This Order requires Permittee(s) to conduct acute toxicity tests (96-hour static renewal toxicity tests) on water samples, by methods specified in 40 CFR Part 136 which cites USEPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821/R-02/012) or a more recent edition.

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In the selection of test species, USEPA recommends the use of species from ecologically diverse taxa. The recommendation is to screen an effluent with at least three species (a fish, an invertebrate, and a plant) for chronic testing and two species (a fish and an invertebrate) for acute testing. This recommendation is based upon the fact that there are species sensitivity differences among different groups of organisms to different toxicants (USEPA, EPA Regions 8, 9, and 10 Toxicity Training Tool, January 2010).

For freshwater, this Order requires the Permittee(s) to conduct the chronic toxicity test in accordance with USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition, October 2002, (EPA/821/R-02/013), or a more recent edition.

For brackish water, this Order requires the Permittee(s) to conduct the chronic toxicity test in accordance with USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition, August 1995, (EPA/600/R-95/136), or Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, (EPA/821-R-02-014), or a more recent edition.

This Order proposes the use of 3 organisms for chronic toxicity testing, but for acute testing, where the fish species is found to be the most sensitive of the two species tested, only fish (2 species) will be used for acute testing in cases where 2 fish species, tolerant of different salinities) are required based on the expected salinity of the receiving water. In cases where only one fish species is needed, both the fish and invertebrate test will be performed. In cases where the invertebrate is the most sensitive species, both the invertebrate and fish tests will be required. Rescreening of the test species is required to verify the most sensitive test species are being used.

Furthermore, the toxicity component of the Monitoring Program includes toxicity identification procedures so that pollutants that are causing or contributing to acute or chronic effects in aquatic life exposed to these waters can be identified and others can be discounted. Once these constituents are identified, the first phase of a Toxicity Reduction Plan (TRE) is to conduct a Toxicity Identification Plan (TIE). TIEs are needed to identify the culprit constituents to be used to prioritize management actions.

In this Order, Permittee(s) are required to prepare and submit a copy of the Permittee(s)'s initial investigation TRE workplan to the Executive Officer of the Regional Water Board for approval. The Permittee(s) shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. This workplan shall describe the steps the Permittee(s) intends to follow if toxicity is detected, and shall include, at a minimum:

• A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and MCM and/or BMP efficiency.

- A description of the Permittee(s) methods for minimizing the toxicity of storm water and non-storm water discharges.
- If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

TRE development and implementation is directly tied to the integrated monitoring programs and watershed management program, to ensure that management actions and follow-up monitoring are implemented when problems are identified. Permittees are encouraged to coordinate TREs with concurrent TMDLs where overlap exists. If a TMDL is being developed or implemented for an identified toxic pollutant, much of the work necessary to meet the objectives of a TRE may already be underway, and information and implementation measures should be shared.

Overall, the toxicity monitoring program will assess the impact of storm water and nonstorm water discharges on the overall quality of aquatic fauna and flora and implement measures to ensure that those impacts are eliminated or reduced. As stated previously, chemical monitoring does not necessarily reveal the totality of impacts of storm water on aquatic life and habitat-related beneficial uses of water bodies. Therefore, toxicity requirements are a necessary component of the MS4 monitoring program.

### J. Special Studies

Requirements to conduct special studies as described in TMDL Implementation Plans that were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

### K. Annual Reporting

The Annual Reporting requirement was also required in Order No. 01-182 and provides summary information to the Regional Water Board on each Permittee's participation in one or more Watershed Management Programs; the impact of each Permittee(s) storm water and non-storm water discharges on the receiving water; each Permittee's compliance with receiving water limitations, numeric water quality based effluent limitations, and non-storm water action levels; and the effectiveness of each Permittee(s) control measures in reducing discharges of pollutants from the MS4 to receiving waters. In addition the Annual Report allows the Regional Water Board to assess whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Control Measures and whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects. The Annual Report provides the Permittee(s) a forum to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures as well as a way to present data and conclusions in a transparent manner so as to allow review and understanding by the general public. Overall the Annual Report allows Permittee's to focus reporting efforts on watershed condition, water quality assessment, and an evaluation of the effectiveness of control measures.

### L. Watershed Summary Information, Organization and Content

As a means to establish a baseline and then identify changes or trends, for each watershed, each Permittee shall provide the information on its watershed management area, subwatershed area, and drainage areas within the subwatershed area in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information should be provided for each watershed within the Permittee's jurisdiction. Alternatively, permittees participating in a Watershed Management Program may provide the requested information through the development and submission of a Watershed Management Program report or within a TMDL Implementation Plan Annual Report. However, in either case, the Permittee shall bear responsibility for the completeness and accuracy of the referenced information. This reporting requirement helps to ensure that both the Permittee and the Regional Water Board have up to date information on the status of each of their watersheds and subwatersheds.

### M. Jurisdictional Assessment and Reporting

The requested information shall be provided for each watershed within the Permittee's jurisdiction. Annual Reports submitted on behalf of a group of Watershed Permittees shall clearly identify all data collected and strategies, control measures, and assessments implemented by each Permittee within its jurisdiction as well as those implemented by multiple Permittees on a watershed scale. Permittees must provide information on storm water control measures, an effectiveness assessment of storm water control measures, information on non-storm water control measures, an integrated monitoring compliance report, information on adaptive management strategies, and supporting data and information. The addition of this reporting requirement serves as a mechanism to evaluate and ensure the protection of receiving water quality on a watershed scale.

### N. TMDL Reporting

Reporting requirements included in this Order and Attachment E (MRP) were established during the TMDL development process for each individual TMDL. These reporting requirements have incorporated into this Order to implement TMDL requirements.

### XIV. SOCIOECONOMIC CONSIDERATIONS

The California Supreme Court has ruled that although California Water Code section 13263 requires the Water Boards to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Water Boards may not consider the factors to justify imposing pollutant restriction that are less stringent than the applicable federal requlations require. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Water Boards consider the factors described in section 13241 as they apply to those specific restrictions.

The Regional Water Board finds that the requirements in this Order are not more stringent than the minimum federal requirements. Among other requirements, federal law requires MS4 permits to include requirements to effectively prohibit non-storm water discharges into the storm sewers, in addition to requiring controls to reduce the discharge of pollutants in storm water to the maximum extent practicable and other provisions that the agency determines are necessary for the control of pollutants in MS4 discharges. The requirements in this Order may be more specific or detailed than those enumerated in federal regulations under 40 CFR § 122.26 or in USEPA guidance. However, the requirements have been designed to be consistent with and within the federal statutory mandates described in Clean Water Act section 402(p)(3)(B)(ii) and (iii) and the related federal regulations and guidance. Consistent with federal law, all of the conditions in this Order could have been included in a permit adopted by USEPA in the absence of the in lieu authority of California to issue NPDES permits. Moreover, the inclusion of numeric WQBELs in this Order does not cause the permit to be more stringent than current federal law. Federal law authorizes both narrative and numeric effluent limitations to meet state water quality standards. The inclusion of WQBELs as discharge specifications in an NPDES permit in order to achieve compliance with water quality standards is not a more stringent requirement than the inclusion of BMP based permit limitations to achieve water quality standards. (State Water Board Order No. WQ 2006-0012 (Boeing).) Therefore, a 13241 analysis is not required for permit requirements that implement the effective prohibition on the discharge of non-storm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law...

Notwithstanding the above, the Regional Water Board has developed an economic analysis of this Order, consistent with California Water Code section 13241. That analysis is provided below. The Regional Water Board has considered all of the evidence that has been presented regarding the 13241 factors in adopting this Order. The Regional Water Board finds that the requirements in this Order are reasonably necessary to protect beneficial uses identified in the Basin Plan, and the econimic information related to costs of compliance and other section 13241 factors are not sufficient to justify failing to protect those beneficial uses. Where appropriate, the Regional Water Board has provided Permittees with additional time to implement control measures to achieve final WQBELs and/or water quality standards.

### A. Past, present and probable future beneficial uses of water.

Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region, which are the receiving waters for MS4 discharges. Beneficial uses are also identified in the findings of this Order and further discussed relative to TMDLs in section VI.D of this Fact Sheet.

## B. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

Environmental characteristics of each of the Watershed Management Areas covered by this Order, including the quality of water, are discussed in the Region's Watershed Management Initiative Chapter as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters.

- Santa Clara River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_clara_river_watershed.doc</u>
- Santa Monica Bay Watershed Management Area www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_ monica_bayWMA/santa_monica_bayWMA.doc
- Dominguez Channel Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/dominguez_channelWMA.doc</u>
- Los Angeles River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_angeles_river_watershed/los_angeles_river_watershed.doc</u>
- San Gabriel River Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/san_g</u> <u>abriel_river_watershed/san_gabriel_river_watershed.doc</u>
- Los Cerritos Channel and Alamitos Bay Watershed Management Area <u>www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_cerritos_channelWMA/los_cerritos_channelWMA.doc</u>
- Middle Santa Ana River Watershed Management Area <u>http://www.waterboards.ca.gov/santaana/water_issues/programs/wmi/index.shtml</u> <u>http://www.sawpa.org/watershedinfo.html</u>

The quality of water in major receiving waters for MS4 discharges has been routinely monitored by Permittees through the Monitoring and Reporting Program under Order No. 01-182. Below are summaries of water quality exceedances reported for the 2010-2011 reporting year.

### Summary of Constituents that Did Not Meet Water Quality Objectives at Mass Emission Stations during 2010-2011 for One or More Events

Mass Emission/Watershed	Wet	Dry
Ballona Creek (S01) ²	Fecal coliforms ³ pH ⁴ Dissolved zinc	рН ³
Malibu Creek (S02)	Fecal coliforms Cyanide pH ³ Sulfate	Fecal coliforms Sulfate
Los Angeles River (S10) ¹	Fecal coliforms ² pH ³ Dissolved zinc Cyanide	Fecal coliforms pH ³
Coyote Creek (S13)	Fecal coliforms ² pH ³ Dissolved zinc	Fecal coliforms
San Gabriel River (S14)	Fecal coliforms ² pH ³	
Dominguez Channel (S28) ¹	Fecal coliforms ² Dissolved copper Dissolved zinc	Fecal coliforms pH ³
Santa Clara River (S29)	Fecal coliforms pH ³ Dissolved zinc	

² More urbanized watersheds.

³ Subject to the fecal coliform water quality objective high-flow suspension (LARWQCB, 2003).

⁴ pH was evaluated outside of holding time.

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The following table summarizes the results of an analysis based on evaluation of the 15 sets of dry weather data for the period of 2005 to 2011 for each of the mass emission stations. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported results for fecal coliform bacteria, cyanide, copper, and selenium concentrations consistently exceeded water quality objectives in all watersheds. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for mercury are largely due to analytical detection levels that were higher than the applicable objective.

	Quanty C		(======================================	UTT - DTY			,
	Santa	Los	Dominguez	Ballona	Malibu	San Gabriel River	
Parameter	Clara River	Angeles River	Channel	Creek	Creek	Upper Portion	Lower Portion
рН	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW	No FW	No FW	No FW	No FW	No FW	No FW
	Objective	Objective)	Objective	Objective	Objective	Objective	Objective
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Chloride	15/15	15/15	No Objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective
Methylene Blue Active Substances	4/15	0/15	No Objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No Objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No Objective	No Objective	13/15	14/14	15/15
Turbidity ²	0/15	2/15	No Objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	1515	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/1)	0/15	0/15	10/10	0/15

### Summary of LA County Watersheds and Frequency of Receiving Water Exceeding Water Quality Objectives (2005 to 2011 - Dry Season Data Analysis)¹

- ^{1.} Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.
- ^{2.} The Basin Plan objective for turbidity for the protection of MUN is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over natural conditions. Since inadequate data were available to assess criteria expressed as incremental changes, only the MCL was considered in the analysis.
- ^{3.} FW means freshwater

## C. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

Since 2001, municipalities both locally and nationally have gained considerable experience in the management of municipal storm water and non-storm water discharges. The technical capacity to monitor storm water and its impacts on water quality has also increased. In many areas, monitoring of the impacts of storm water on water quality has become more sophisticated and widespread. Better information on the effectiveness of storm water controls to reduce pollutant loadings and address water quality impairments is now available. The International Stormwater BMP Database (<u>http://www.bmpdatabase.org/</u>) provides extensive information of the performance capabilities of storm water controls. Additionally, the County of Los Angeles conducted a BMP effectiveness study as a requirement of Order No. 01-182.⁵

Generally, improvements in the quality of receiving waters impacted by MS4 discharges can be achieved by reducing the volume of storm water or non-storm water discharged through the MS4 to receiving waters; reducing pollutant loads to storm water and non-storm water through source control/pollution prevention, including operational source control such as street sweeping, public education, and product or materials elimination or substitution; and removing pollutants that have been loaded into storm water or non-storm water before they enter receiving waters, through treatment or diversion to a sanitary sewer. The following factors are generally accepted to affect pollutant concentrations in MS4 discharges⁶:

- Land use
- Climatic conditions
- Season (i.e. for southern California, dry season and winter wet season)
- Percentage imperviousness (in particular, "effective impervious area" or "EIA")
- Rainfall amount and intensity (including seasonal "first-flush" effects)
- Runoff amount
- Watershed size

In their 2010-2011 Annual Report, Permittees identified the following storm water and nonstorm water pollutant control measures as particularly effective:

⁵ County of Los Angeles Department of Public Works. "Los Angeles County BMP Effectiveness Study," August 2005.

⁶ Maestre, Alexander and Robert Pitt. "Identification of Significant Factors Affecting Stormwater Quality Using the NSQD" (draft monograph, 2005).

- Street sweeping;
- Catch basin cleaning;
- Catch basin inserts
- Trash bins;
- End-of-pipe controls such as low-flow diversions;
- Infiltration controls;
- Erosion controls; and
- Public education and outreach, including multi-lingual strategies.

Permittees summarized the most-used BMPs and most popular BMPs (according to the number of Permittees using a particular BMP) in their 2010-2011 Annual Report. An itemization of all BMPs installed and maintained during the 2010-11 reporting period is provided in Appendices B and C of the Permittees' Annual Report.

BMP Type	Total Number Installed
Catch Basin Connector Pipe Full Capture (CPS)	6377
Fossil Filter Catch Basin Insert	5968
Automatic Retractable Catch Basin Trash Screen (ARS)	3870
Clean Screen Catch Basin Insert	3767
Extra Trash Can	3681
Covered Trash Bin	3119
Signage and Stenciling	1884
Drain Pac Catch Basin Insert	1625
CulTec Infiltration Systems	1296
Infiltration Trenches	963
Infiltration Pit	958
Abtech Ultra Urban Catch Basin Insert	748
CDS Gross Pollutant Separator	438
United Storm Water Catch Basin Scree Inserts	403
Restaurants Vent Traps	258
Stormceptor Gross Pollutant Separators	211

### Most installed BMPs County-wide During 2010-11

### Most Used Proprietary and Non-Proprietary BMPs During 2010-11

	oroprietary BMPs	Types Proprietary BMPs Usec Most Permittees	
BMP Type	No. of Cities	BMP Type	No. of Cities
Infiltration	40	Fossil Filter	46
Trenches		Catch Basin	
		Inserts	
Covered Trash	32	CDS Gross	36



Bins		Pollutant	
		Separator	
Extra Trash	31	Drain Pac	21
Cans		Catch Basin	
		Insert	
Enhanced	26	Clean Screen	21
Street		Catch Basin	
Sweeping		Insert	
Dog Parks	23	Stormceptor	19
		Gross	
		Pollutant	
		Separator	

Some of the many advances in how to effectively control storm water and pollutants in storm water have occurred locally within the Los Angeles Region and include the development of cost effective trash full capture devices, storm water diversion, treatment and beneficial use facilities such as SMURRF and storm water capture, storage, and reuse facilities such as Sun Valley, low impact development/site design practices, and innovative/opportunistic culvert inlet multi-media filters. There are many other case studies of municipalities that have implemented innovative and effective storm water management measures (e.g., Portland, OR).

This Order is designed to reduce pollutant loading to waterbodies within Los Angeles County from discharges to and from the Los Angeles County MS4 through the implementation of multi-faceted storm water management programs at the municipal and watershed levels. Overall improvements in MS4 discharge quality are expected to occur over time with ongoing implementation of the Los Angeles County MS4 Permit. However, currently little information on the quality of storm water in the region and the water quality that can be achieved with the coordinated control of all MS4 discharges through full implementation of all storm water management measures by individual municipalities and collectively by all Permittees within a watershed is available. ThisOrder, however, is designed to effectively focus and broaden monitoring requirements with the addition of outfall monitoring and monitoring associated with the 33 TMDLs being incorporated, so pollutant loading from the MS4 can be better quantified and improvements in water quality resulting from implementation of storm water management measures can be tracked.

### D. Economic considerations.

The Regional Water Board recognizes that Permittees will incur costs in implementing this Order above and beyond the costs from the Permittees' prior permit. Such costs will be incurred in complying with the post-construction, hydromodification, Low Impact Development, TMDL, and monitoring and reporting requirements of this Order. The Regional Water Board also recognizes that, due to California's current economic condition, many Permittees currently have limited staff and resources to implement actions to address its MS4 discharges. This Order allows Permittees the flexibility to address critical water quality priorities, namely discharges to waters subject to TMDLs, but aims to do so in a focused and cost-effective manner while maintaining the level of water quality protection

mandated by the Clean Water Act and other applicable requirements. For example, the inclusion of a watershed management program option allows Permittees to submit a plan for Regional Water Board Executive Officer approval that would allow for actions to be prioritized based on specific watershed needs. The cost of complying with TMDL wasteload allocations has been previously considered during the adoption of each TMDL.

It is very difficult to determine the true cost of implementing storm water and urban runoff management programs because of highly variable factors and unknown level of implementation among different municipalities and inconsistencies in reporting by Permittees. In addition, it is difficult to isolate program costs attributable to permit compliance. Reported costs of compliance for the same program element can vary widely from Permittee to Permittee, often by a very wide margin that is not easily explained. Despite these problems, efforts have been made to identify storm water and urban runoff management program costs, which can be helpful in understanding the costs of program implementation.

Economic considerations of implementing this Order were examined by primarily utilizing the data that are self-reported by the Permittees in their annual reports and a State Water Board funded study, which examined the costs of municipal MS4 programs statewide.⁷ The economic impact to public agencies was tabulated based on the reported costs of implementing the six minimum control measures (Public Information and Participation, Industrial/Commercial Facilities Control, Development Planning, Development Construction, Public Agency Activities, and Illicit Connections and Illicit Discharges Elimination) required by 40 CFR section 122.26(d)(2)(iv) as well as costs associated with program management, monitoring programs, and a category described as other. As noted above, Permittees report wide variability in the cost of compliance, which is not easily explained. Based on reported values, the average annual cost to the Permittees in 2010-11 was \$4,090,876 with a median cost of \$687,633. This translated to an average annual cost per household⁸ of \$120.04 with a median cost of \$57.31 per household.

It is important to note that reported program costs are not all solely attributable to compliance with requirements of the LA County MS4 Permit. Many program components, and their associated costs, existed before the first LA County MS4 Permit was issued in 1990. For example, storm drain maintenance, street sweeping and trash/litter collection costs are not solely or even principally attributable to MS4 permit compliance, since these practices have long been implemented by municipalities. Therefore, the true program cost related to complying with MS4 permit requirements is some fraction of the total reported costs. For example, after adjusting the total reported costs by subtracting out the costs for street sweeping and trash collection, the average annual cost to the Permittees was \$2,397,315 with a median cost of \$290,000. This translates to an average annual cost per household of \$42.57 (or \$3.55 per month) with a median annual cost of \$17.89 per household.

⁷ Data from the Los Angeles County Municipal Storm Water Permit (Order No. 01-182), Unified Annual Stormwater Report, 2010 – 2011, <u>http://ladpw.org/wmd/npdesrsa/annualreport/</u>

⁸ Data from the U.S. Census Bureau, 2010, <u>http://quickfacts.census.gov</u>.

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These results are consistent with the State Water Board funded study ("State Water Board Study") that surveyed the costs to develop, implement, maintain and monitor municipal separate storm sewer system management and control programs in 2004.⁹ The objectives of the study were to: 1) document stormwater program costs and 2) assess alternative approaches to MS4 guality control. The six cities selected for the study were judged by State Water Board staff as having good MS4 management programs, adequate accounting systems, and represented a variety of geographic locations, hydrologic areas, populations and incomes. The cities selected were Corona, Encinitas, Fremont, Fresno-Clovis Metropolitan Area, Sacramento and Santa Clarita. The results found that the annual total cost per household ranged from \$18 to \$46. The average cost was found to be \$35 and the median, \$36. The true mean, which is derived by dividing the total sample costs by the total sample number of households, is \$29 in 2002 dollars. This study was further examined and applied to the Ventura County MS4 Permit in "Economic Considerations of the Proposed (February 25, 2008) State of California Regional Water Quality Control Board Los Angeles Region, Order 08-xxx, NPDES Permit No. CAS004002, Waste Discharge Requirements for Stormwater (Wet Weather) and Non-Stormwater (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein," and found that when adjusted for inflation, the total annual cost to the MS4 Permittees ranged from \$7.15 to \$10.9 million, depending on the averaging method applied. This translated to an annual cost per household that ranged from \$27.60 to \$42.00 in 2008 dollars.

The State Water Board Study noted inherent limitations in the cost data quality. The most significant data quality limitation cited is that the costs provided by the municipalities were not sufficiently detailed or referenced to provide opportunity for independent review of the accuracy and completeness of the cost data. Similarly, the costs presented in the Los Angeles County Unified Annual Report ("Unified Annual Report") are not presented with supporting data or references so that they can be independently reviewed. Some of the limitations of the reported cost data are illustrated by a comparison of monitoring costs in different sections of the Unified Annual Report. In the monitoring costs section, the total costs for monitoring, including sample collection, analytical results, and sampling station maintenance was \$713,409 for 2010-2011. In contrast, the same report showed the monitoring costs of \$9,008,460 in the Unified Cost Table. Absent further explanation in the Unified Annual Report, this suggests that the reported costs may not be reliable.

The State Water Board Study also found that certain stormwater implementation costs included activities that provide separate and additional municipal benefits such as street sweeping and storm drain and channel cleaning. The State Water Board Study indicated that the inclusion of these costs as stormwater implementation costs is not uniform across different municipalities. In order to assess the variability of costs reported by different municipalities under the same permit and determine if Los Angeles County MS4 Permittees are reporting costs for activities that provide municipal benefits beyond storm water management and permit compliance, Regional Water Board staff reviewed costs reported by Los Angeles County MS4 Permittees in the Unified Annual Report. The reported storm

⁹ Currier, Brian K., Joseph M. Jones, Glenn L. Moeller. "NPDES Stormwater Cost Survey, Final Report", Prepared for California State Water Resources Control Board, California State University Sacramento, Office of Water Programs, January, 2005.

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water costs range from \$11.45 to \$928.10 per household per year. The average reported cost was \$120.04 per household per year and the median cost was \$57.31 per household per year. The wide spread of annual costs and the significant difference between the mean and median costs indicate that the LA County MS4 Permittees are not reporting costs in a uniform manner.

Staff also reviewed available cost data in the Unified Annual Report for Permittees that provided separate costs regarding street sweeping and trash collection. Staff adjusted the total costs so that the costs for these multi-benefit municipal programs were not included in the storm water cost and found that the adjusted storm water costs were greatly reduced by excluding these activities. These adjusted costs ranged from \$0.00 per household per year to \$903.10 per household per year. The mean adjusted rate is \$42.57 per household per year and the median adjusted rate is \$17.89 per household per year. Clearly, a significant portion (greater than 50%) of the costs attributed to storm water compliance activities also provide additional municipal benefits. (In the case of the Los Angeles County MS4 Permittees, some municipalities reported costs for trash collection; these costs were not reported by municipalities in the State Water Board Study.)

Finally, staff reviewed the cost breakdowns reported in the State Water Board Study and the Unified Annual Report for Los Angeles County MS4 Permittees. The following table summarizes the results:

Cost Category	State Water Board Study	Los Angeles County (2010-2011)
Watershed Management	6%	5%
Construction	11%	1%
Illicit Discharge	4%	2%
Industrial and Commercial	8%	1%
Overall Management	37%	5%
Pollution Prevention	2%	2%
Post Construction	3%	
Public Education	13%	2%
Monitoring	16%	3%
BMP Maintenance	Not Reported	2%
Development	Not Reported	1%
Other	Not reported	76%

The reported costs show differences between the MS4 Permittees surveyed in the State Water Board Study and the Los Angeles County MS4 Permittee costs in the following categories: construction, industrial and commercial activities, public education and monitoring. These categories all show greater proportional statewide cost allocations relative to the cost allocations by the Los Angeles County MS4 Permittees. The Los Angeles County MS4 Permittees report a cost category of BMP maintenance, which is not defined in the State Water Board Study. The management costs in the State Water Board Study were greater than the management costs reported by the Los Angeles County MS4 Permittees, but the Los Angeles County MS4 Permittees also reported a category of

"Other" that accounted for a large proportion of costs, which is not defined in the Unified Annual Report.

In addition to considering the costs of storm water management, it is important to consider the benefits of storm water and urban runoff management programs. A recent study conducted by USC/UCLA assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.¹⁰ Costs are anticipated to be borne over many years. As can be seen, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II storm water rule would also outweigh the costs.¹¹

### Economic considerations of Not Regulating MS4 Discharges.

Economic discussions of storm water and urban runoff management programs tend to focus on costs incurred by municipalities in developing and implementing the programs. This is appropriate, and these costs are significant and a major issue for the Permittees. However, in adopting Order WQ 2000-11, the State Water Board further found that in considering the cost of compliance, it is also important to consider the costs of impairment; that is, the negative impact of pollution on the economy and the positive impact of improved water quality. For example, economic benefits may result through program implementation, and alternative costs (as well as environmental impacts) may be incurred by not fully implementing the program. So, while it is appropriate and necessary to consider the cost of compliance, it is also important to consider the alternative costs incurred by not fully implementing the programs, as well as the benefits which result from program implementation.

The benefits of implementation of the Los Angeles County MS4 Permit include improvements in water quality, enhancement of beneficial uses, and increased employment, income and satisfaction from environmental amenities. Most of the benefits of this permit can be identified and, in some cases, quantified in monetary terms. Others cannot be expressed in dollar terms and can only be described. For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by USEPA¹² to be \$158-210.62. This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study corroborates USEPA's estimates, reporting annual household willingness to pay for statewide clean water to be \$180.63.¹³ When viewed in comparison to household costs of existing urban runoff management programs, these household willingness to pay estimates exhibit that per household costs incurred by Permittees to implement their urban runoff management programs remain reasonable.

¹⁰ LARWQCB, 2004. Alternative Approaches to Stormwater Control.

¹¹ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791.

¹² Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793.

¹³ State Water Board, 2005. NPDES Stormwater Cost Survey. P. iv.

Not regulating discharges from the Los Angeles County MS4 will result in greater pollution of rivers, streams, lakes, reservoirs, bays, harbors, estuaries, groundwater, coastal shorelines and wetlands. Urban runoff in southern California has been found to cause illness in people bathing near storm drains.¹⁴ A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8% among bathers at those beaches resulted in about \$3 million annually in health-related expenses.¹⁵ In addition, poor beach water quality negatively affects tourism, which in turn reduces revenues to local businesses.

### Funding Sources.

Public agencies (both federal and state) recognize the importance of storm water improvement projects and have provided significant sources of funding through grants, bonds, and fee collections to help offset the costs of storm water management in Los Angeles County. The table below summarizes the funds that have been allocated to storm water management in Los Angeles County, to date.

Source of Money	Dollars	% of total costs funded by State (only for those projects which included State funding)
Only State Board-awarded funding (Propositions 12, 13, 40, 50, and 84; and federal money, 319h, 205j, ARRA)	\$49,143,132	47%
Only State money from any State agency (propositions only, no federal); includes State Board, DWR, Coastal Conservancy, Fish & Game	\$67,461,699	58%
Total costs (approx.) for projects involving State money	\$114,703,731	N/A
Prop A	\$4,981,772	N/A
Prop O	\$508,678,258	N/A
Measure V	\$9,107,959	N/A
Total Public Funds (federal, State, local bonds and measures) expended on stormwater control projects	\$645,389,932	N/A (information not available for projects funded by local bonds and measures)

In addition to current funding options, future funding options continue to be created. Assembly Bill 2554, known as the Los Angeles County Flood Control District's Water

 ¹⁴ Haile, R.W., et al, 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.
 ¹⁵ Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment

¹⁵ Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick.

Quality Funding Initiative, is currently awaiting voter approval and would create an estimated annual revenue of \$300 million earmarked for:

- New and Existing Water Quality Projects and Programs
- Maintenance of Existing Facilities
- TMDL and MS4 Permit Implementation

Of the estimated annual revenue of \$300M, 40% of the money would be returned to the municipalities to create new local projects and programs and maintenance. Below are the estimated revenues that would be allocated to certain municipalities.

Municipalities	Estimated Annual Revenue
City of Los Angeles	\$37 million
City of Santa Monica	\$1 million
El Segundo	\$600,000
Manhattan Beach	\$300,000
Redondo Beach	\$750,000
Unincorporated Areas on Los	\$15 million
Angeles County	

Fifty percent of the \$300M would be spread across nine watershed authority groups (WAGs) to develop Water Quality Improvement Plans and implement regional projects and programs. Some examples of the possible annual revenues available to the WAGs are provided below:

WAG	Estimated Revenue
Santa Monica Bay	\$12 million
Upper Los Angeles River	\$36 million
Lower Los Angeles River	\$15 million
Upper San Gabriel River	\$17 million

The remaining 10% of annual revenues is allocated to the Los Angeles County Flood Control District for administration of the program and other district water quality projects and programs.

### E. Need for developing housing within the region.

For over 100 years, this region has relied on imported water to meet many of our water resource needs. Imported water makes up approximately 70 to 75% of the Southern California region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining 25 to 30%.¹⁶ The area encompassed by this Order imports approximately 50% of its water supply. The Los Angeles County MS4 permit helps address the need for housing by controlling pollutants in MS4 discharges, which will improve the quality of water available for recycling and re-use. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development.

¹⁶ Southern California Association of Governments. The State of the Region 2007 Measuring Regional Progress (Housing, Environment). December 6, 2007. http://www.scag.ca.gov/publications/index.htm.

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A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary.

In this Order, the Regional Water Board supports integrated water resources approaches. An integrated water resources approach manages water resources by integrating wastewater, stormwater, recycled water, and potable water planning through the capture and beneficial use of stormwater. An integrated approach can preserve local groundwater resources and reduce imported water needs. Thus, complying with this Order can positively affect the need for developing housing in the region. Furthermore, the low impact development (LID) requirements of this MS4 permit emphasize the necessity to balance growth with the protection of water quality. LID emphasizes cost effective, lot-level strategies that replicate the natural hydrology of the site and reduces the negative impacts of development. By avoiding the installation of more costly conventional storm water management strategies and harnessing runoff at the source, LID practices enhance the environment while providing cost savings to both developers and local governments.

### F. Need to develop and use recycled water.

Storm water runoff that travels across the urban landscape quickly becomes contaminated with the wastes inherent from urban living. This polluted water is then discharged to the surface waters and eventually the ocean where it wreaks havoc on the natural coastal ecosystem and impacts human health. If the storm water is captured and treated (or captured prior to contamination) a new resource could be added to local water supplies. If this water is more effectively harnessed and recycled, numerous benefits could be achieved. These include:

- Regional reduction on imported water;
- Aid in the restoration of area aquifers;
- Reduction in the need for extensive public works projects; and
- Improvement in the quality of impaired water bodies.

The exact volume of storm water available for capture is dependent on the intensity and duration of storm events. Looking at land uses across the region and applying land use-specific runoff coefficients, the annual average runoff in the Los Angeles subarea is 450,000 acre-feet/year (with an average annual rainfall of 15.5 inches). The Los Angeles and San Gabriel Rivers Watershed Council estimates that, on average, about 550,000 acre-feet/year of runoff are discharged from Los Angeles area to the ocean.¹⁷

It is not possible to capture all MS4 discharges; however, a significant portion could be put to beneficial use. Potentially, in Los Angeles, "[i]f we could capture 80% of the rainfall that falls on just a quarter of the urban area-15% of the total watershed-we would be reducing total runoff by approximately 30%. That translates into a diversion of 43 billion gallons of water per year (132,000 acre-feet) or enough to supply 800,000 people for a year."¹⁸ That

¹⁷ <u>http://www.lasgrwc.org/WAS/WASflyer_web.pdf</u>

¹⁸ Los Angeles and San Gabriel River Watershed Council. 1999. *Stormwater: asset not liability.* 

water capture would render a savings of almost sixty million dollars of imported State Water Project water. Capturing storm water from a larger portion of the watershed could increase the volume of this "new" water even further. Unlike traditional recycled water that requires the installation of dual plumbing and intensive infrastructure, much of the storm water capture could be done with minimal infrastructure retrofits in established communities.

Larger projects (and the corresponding savings) are also possible. The County of Los Angeles recharges storm water already. While the scale of these recharge activities is limited compared to the volume of water potentially available to recharge, the value of the process is significant. For example, in 2000 "County conservation efforts captured 220,000 acre-feet of local storm water runoff that was valued at \$80 million dollars."¹⁹

The unknown effects of infiltrating stormwater to recharge ground water have created some concern that such activities could introduce pollutants to the water supply. However, the U.S. Bureau of Reclamation has found²⁰:

"Based on the findings of the WAS research, decentralized stormwater management would provide a local and reliable supply of water that would not negatively impact groundwater quality. A decentralized approach could contribute up to 384,000 acre-feet of additional groundwater recharge annually if the first ³/₄" of each storm is infiltrated on all parcels, enough to provide water annually to approximately 1.5 million people. The value of this new water supply would be approximately \$311 million, using the MWD Tier 2 rate for 2010."

Recent studies in the Los Angeles area have also shown that in the process of infiltration through the soil, many contaminants are removed with no immediate impacts, and no apparent trends to indicate that storm water infiltration will negatively impact aroundwater.²¹. In areas with groundwater contamination issues, utilizing recycled storm water to recharge the aquifers may actually aid in the dilution of the buildup of salts. The value of this is hard to quantify but is an additional benefit. The use of recycled water can be accomplished in direct (such as irrigation projects or dual plumbing fixtures) or indirect (such as infiltration) ways. Both direct and indirect methods can be completed on a variety of different scales. To maximize the benefits available from using recycled water, the direct and indirect projects will need to be completed on household, neighborhood, watershed and regional scales. Currently there are a limited (but growing) number of projects in the region that can serve as examples of what may be accomplished through the development and implementation of recycled water projects. The Los Angeles County MS4 permit addresses the need for recycled water by controlling pollutants in storm water, which will result in water of improved quality with a greater potential for recycling or beneficial use. State law and policy advocates greatly expanding the use of recycled water to help meet local demand and reduce the volumes of water that are imported from other regions. Increased utilization of recycled water will require looking beyond the traditional reclaimed wastewater and will require utilizing storm water that is wasted by conveyance in the MS4

¹⁹ Los Angeles County Department of Regional Planning. 2008. 2008 Draft General Plan-

Planning Tomorrow's Great Places.

²⁰ Los Angeles and San Gabriel River Watershed Council. 2010. Water Augmentation Study: Research, Strategy, and Implementation Report.

²¹ Los Angeles and San Gabriel River Watershed Council. 2005. Los Angeles Basin Water Augmentation Study Phase II Final Report.

and dumping into the ocean. Storm water capture and use has not traditionally been included in the discussion of water recycling, but the process meets the definitional constraints and is bound by the same limitations and boundaries.

In addition, there are a number of Total Maximum Daily Loads (TMDLs) developed by the Regional Water Board that incorporate recycled water programs as potential implementation actions to meet TMDL requirements. These potential actions focus on both traditional water recycling and the newer storm water recycling approaches. Such recycled water programs could also reduce reliance on potable water supplies by expanding water recycling and aiding in the reclamation of poor quality, unconfined groundwater supplies. The capture, treatment and use of stormwater could augment these techniques as well. On-site capture of storm water helps prevent the water from being contaminated by urban by-products to begin with and the use of this high quality resource could reduce the unnecessary use of potable water for non-potable needs.

Some great examples of onsite capture are being demonstrated by TreePeople²² who have demonstration projects ranging from small scale rainwater harvesting at the single family home locations, to large scale watershed projects at Tuxedo Green in Sun Valley where the project redesigned the intersection with a flood control system that conveys most stormwater under, instead of into, the busy intersection. The water is stored in a 45,000-gallon cistern to be used for irrigating the landscaping at the new pocket park, which is planted with native and drought-tolerant species.

Another state of the art project was implemented by the City of Santa Monica called the Santa Monica Urban Runoff Recycling Facility (SMURFF).²³ The project harnesses the urban runoff (primarily during the dry season) and treats it for various pollutants to create a source of high quality water for reuse in landscape irrigation. Because the facility captures the dry weather runoff before it reaches the Santa Monica Bay it decreases a significant amount of pollutants from negatively impacting the Bay and associated beaches. The SMURFF is also open to the public and has several exhibits to raise public awareness of Santa Monica Bay pollution and the role of each individual in the watershed's health.

The County of Los Angeles Department of Public Works, Watershed Management Division has targeted the Sun Valley Watershed "...to solve the local flooding problem while retaining all storm water runoff from the watershed, increasing water conservation, recreational opportunities, wildlife habitat, and reducing stormwater pollution."²⁴ This aggressive plan involves several stakeholders and has implemented a variety of on-site BMPs as well as storm water infiltration retrofits and diversions.

### XV. UNFUNDED MANDATES

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the

²² <u>www.treepeople.org</u>

²³http://c0133251.cdn.cloudfiles.rackspacecloud.com/Case%20Study%20-

^{%20}Santa%20Monica%20Urban%20Runoff%20Recycling%20Facility%20SMURFF.pdf

²⁴ http://www.sunvalleywatershed.org/watershed_management_plan/wmp-0ES.pdf

state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds for several reasons, including, but not limited to, the following.

First, the requirements of this Order do not constitute a new program or a higher level of service as compared to the requirements contained in the previous permit, Order No. 01-182 (as amended). The overarching requirement to impose controls to reduce the pollutants in discharges from MS4s is dictated by the Clean Water Act and is not new to this permit cycle. (33 U.S.C. §1342(p)(3)(B).) The inclusion of new and advanced measures as the MS4 programs evolve and mature over time is anticipated under the Clean Water Act (55 *Fed. Reg.* 47990, 48052 (Nov. 16, 1990)), and these new and advanced measures do not constitute a new program or higher level of service.

Second, and more broadly, mandates imposed by federal law, rather than by a state agency, are exempt from the requirement that the local agency's expenditures be reimbursed. (Cal. Const., art. XIII B, §9, subd. (b).) This Order implements federally mandated requirements under the Clean Water Act and its requirements are therefore not subject to subvention of funds. This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. (30 U.S.C. §1342(p)(3)(B).) Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (Natural Resources Defense Council, Inc. v. U.S. E.P.A. (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (cf. Burbank v. State Water Resources Control Bd. (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region (2006) 135 Cal.App.4th 1377, 1389; Building Industry Ass'n of San Diego County v. State Water Resources Control Bd. (2004) 124 Cal.App.4th 866, 882-883.)

The maximum extent practicable standard is a flexible standard that balances a number of considerations, including technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness. (*Building Ind. Asso., supra*, 124 Cal. App.4th at pp. 873, 874, 889.) Such considerations change over time with advances in technology and with experience gained in storm water management. (55 *Fed. Reg.* 47990, 48052 (Nov. 16, 1990).) Accordingly, a determination of whether the conditions contained in this Order exceed the requirements of federal law cannot be based on a point by point comparison of the permit conditions and the six minimum control measures that are required "at a minimum" to reduce pollutants to the maximum extent practicable and to protect water quality (40 CFR §122.34). Rather, the appropriate focus is whether the permit conditions, as a whole, exceed the maximum extent practicable standard. In recent months, the County of Los Angeles and County of Sacramento Superior Courts have granted writs setting aside decisions of the Commission on State Mandates that held that certain

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requirements in Phase I permits constituted unfunded mandates. In both cases, the courts found that the correct analysis in determining whether a MS4 permit constituted a state mandate was to evaluate whether the permit as a whole -- and not a specific permit provision -- exceeds the maximum extent practicable standard. (*State of Cal. v. Comm. On State Mandates* (Super. Ct. Sacramento County, 2012, No. 34-2010-80000604), *State of Cal. v. County of Los Angeles* (Super. Ct. Los Angeles County, 2011, No. BS130730.)

The requirements of the Order, taken as a whole rather than individually, are necessary to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The Regional Water Board finds that the requirements of the Order are practicable, do not exceed federal law, and thus do not constitute an unfunded mandate. These findings are the expert conclusions of the principal state agency charged with implementing the NPDES program in California. (Cal. Wat. Code, §§13001, 13370.)

It should also be noted that the provisions in this Order to effectively prohibit non-storm water discharges are also mandated by the Clean Water Act. (33 U.S.C. §1342(p)(3)(B)(ii).) Likewise, the provisions of this Order to implement total maximum daily loads (TMDLs) are federal mandates. The Clean Water Act requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. § 1313(d).) Once the USEPA or a state establishes or adopts a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions and requirements of any applicable waste load allocation in a TMDL. (40 CFR § 122.44(d)(1)(vii)(B).)

Third, the local agency Permittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) regulates the discharge of waste (Cal. Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and non-governmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Generally, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Resources Control Board decisions, certain provisions of this Order do not require strict compliance with water quality standards. (SWRCB Order No. WQ 2001-15, p. 7.) Those provisions of this Order regulate the discharge of waste in municipal storm water under the Clean Water Act MEP standard, not the BAT/BCT standard that applies to other types of discharges. These provisions, therefore, regulate the discharge of waste in

municipal storm water more leniently than the discharge of waste from non-governmental sources.

Fourth, the Permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)). To the extent that the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (Accord *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIIIB, Section (6) of the California Constitution.

Finally, even if any of the permit provisions could be considered unfunded mandates, under Government Code section 17556, subdivision (d), a state mandate is not subject to reimbursement if the local agency has the authority to charge a fee. The local agency Permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order subject to certain voting requirements contained in the California Constitution. (See California Constitution XIII D, section 6, subdivision (c); see also Howard Jarvis Taxpayers Association v. City of Salinas (2002) 98 Cal. App. 4th 1351, 1358-1359.). Additional fee authority has recently been established through amendments to the Los Angeles County Flood Control Act (Chapter 755 of the Statutes of 1915, as amended by Assembly Bill 2554 (2010)) to provide funding for municipalities, watershed authority groups, and the LACFCD to initiate, plan, design, construct, implement, operate, maintain, and sustain projects and services to improve surface water quality and reduce storm water and non-storm water pollution in the LACFCD, which will directly support Permittees' implementation of the requirements in this Order. The Fact Sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The authority and ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (Clovis Unified School Dist. v. Chiang (2010) 188 Cal. App.4th 794, 812, quoting Connell v. Superior court (1997) 59 Cal.App.4th 382, 401; County of Fresno v. State of California (1991) 53 Cal.3d 482, 487-488.)

### XVI. PUBLIC PARTICIPATION

Regional Water Board staff held a kick-off meeting on May 25, 2011 to discuss the preliminary schedule for permit development; identify potential alternative permit structures; and outline some of the major technical and policy aspects of permit development. All LA County MS4 Permittees, as well as other known interested stakeholders, were invited to attend. Ninety-five individuals attended the meeting, representing most of the permittees as well as environmental organizations. After a presentation by Board staff, Permittees and interested persons had an initial opportunity to ask questions of staff, raise concerns, and provide feedback.

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At the May 25, 2011 kick-off meeting, Board staff requested input from the attendees on various permit structures. In order to solicit more focused input from permittees on alternative permit structures, and per suggestions at the kick-off meeting, Board staff developed and distributed an on-line survey to permittees using the on-line survey tool, SurveyMonkey®. The survey was distributed to all Los Angeles County MS4 Permittees on June 14, 2011 and responses were requested within two weeks. Fifty-two permittees responded using the on-line survey tool. The on-line survey sought input on several options for permit structure, including an individual permit for each municipality, a single permit for all permittees (i.e., the existing permit structure), and a single or multiple watershed-based permits.

Regional Water Board staff also held three topical workshops on December 15, 2011, January 23, 2012, and March 1, 2012. At the December 2011 workshop, staff discussed and invited feedback on: tentative permit requirements for the "minimum control measures" that comprise Permittees core storm water management program, approaches to addressing non-storm water MS4 discharges, and options for flexibility in permit requirements to address watershed priorities. At the January 2012 workshop, staff discussed and invited feedback on: tentative permit requirements to implement TMDL waste load allocations assigned to MS4 discharges and monitoring and reporting requirements for this Order. At the March 2012 workshop, staff discussed the use of water quality-based effluent limitations in this Order, discussed a revised proposal for monitoring requirements based on comments from the January 2012 workshop, and provided additional detail on proposed minimum control measure requirements.

Three Regional Water Board workshops were held during regularly scheduled Board meetings on November 10, 2011, April 5, 2012, and May 3, 2012. At the November 2011 Board workshop, staff discussed the objectives for the new permit, the status and schedule for permit development, alternatives for permit structure, provisions to implement TMDL WLAs, and provisions for minimum control measures, and identified preliminary considerations related to provisions for non-storm water discharges, receiving water limitations, water quality-based effluent limitations, and requirements for monitoring and reporting.

Prior to the April 5, 2012 Board workshop, staff released complete working proposals of the permit provisions related to two key parts of this Order: the storm water management program "minimum control measures" and the non-storm water MS4 discharge prohibitions on March 21, 2012 and March 28, 2012, respectively. Staff provided Permittees and interested persons the opportunity to submit written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the April 2012 Board workshop, staff presented the working proposals and the Board invited public comments. Detailed comments were made on both working proposals, and in particular, comments were made on how to address "essential" non-storm water discharges from potable water supplies and fire fighting activities in this Order.

Prior to the May 3, 2012 Board workshop, staff released complete working proposals of the permit provisions related to three other key parts of this Order: provisions for watershed management programs, TMDL-related requirements, and receiving water limitations language. Staff provided Permittees and interested persons the opportunity to submit

written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the May 2012 Board workshop, staff presented the three working proposals and the Board invited public comments. Staff answered extensive questions from Board members following public comments.

In addition to staff and Board workshops, Regional Water Board staff met regularly with Permittees, including the LA Permit Group (a coalition of 62 of the 86 Permittees covered by this Order), the Los Angeles County Flood Control District and the County of Los Angeles, the City of Los Angeles, and interested environmental organizations including Heal the Bay, Santa Monica Baykeeper, and the Natural Resources Defense Council (NRDC). Staff also met on several occasions with other affected agencies including large public water suppliers (Los Angeles Department of Water and Power and Metropolitan Water District), small community water suppliers, and local fire departments.

Finally, staff hosted several "joint" meetings to bring together key leaders among the Permittees and environmental organizations to discuss significant issues and work towards consensus on these issues where possible. The first two of these were held on May 17, 2012 and May 31, 2012, during which the group discussed permit requirements for USEPA established TMDLs. Staff prepared a working proposal based on the areas of agreement from the May 17th joint meeting, and distributed the proposal for review prior to the second meeting on May 31st. The proposal was discussed and refined at the second meeting. A third meeting is scheduled for June 14, 2012.

Prior to the Board's consideration of this Order, the Regional Water Board notified the Permittees and all interested agencies and persons of its intent to hold a hearing to issue an NPDES permit for discharges from the Los Angeles County MS4 and provided them with an opportunity to submit written comments over a 45-day period. The procedures followed for submission of written comments are described in the Notice of Hearing and Opportunity to Comment published for this Order. Notification was provided through the Regional Water Board's website, the Regional Water Board's e-mail subscription service, and the LA Times.

The Regional Water Board held a public hearing on the tentative Order during its regular Board meeting on September 6-7, 2012. Permittees and interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony and comments pertinent to the discharge and this Order. The hearing procedures followed by the Regional Water Board are described in the Notice of Hearing and Opportunity to Comment published for this Order.

### ATTACHMENT G. NON-STORM WATER ACTION LEVELS AND MUNICIPAL ACTION LEVELS

### I. SANTA CLARA RIVER WATERSHED AREA

## Table G-1.Action Levels for Discharges to Inland Surface Waters, EnclosedBays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Chloride	mg/L	3	
Sulfate	mg/L	3	
Total Dissolved Solids	mg/L	3	
Methylene Blue Active Substances	mg/L	$0.5^{4}$	
Aluminum, Total Recoverable	mg/L	1.0 ⁴	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	5	5
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁴ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁵ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

## Table G-2. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

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Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Chloride	mg/L	5	
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Methylene Blue Active Substances	mg/L	0.5 ⁶	
Aluminum, Total Recoverable	mg/L	1.0 ⁶	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	7	7
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2
		6.400/400 1	

*E. Coli* density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

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- ⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁷ The applicable action level is the most stringent between corresponding Table H-1 and Table H-3 action levels.

## Table G-3. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1, 2}	10,000 ^{2, 3}
Fecal Coliform Bacteria	#/100 ml	200 ¹	400 ³
Enterococcus Bacteria	#/100 ml	35 ¹	104 ³
Chloride	mg/L	4	
Sulfate	mg/L	4	
Total Dissolved Solids	mg/L	4	
Methylene Blue Active Substances	mg/L	0.5 ⁵	
Aluminum, Total Recoverable	mg/L	1.0 ⁵	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	58	117

¹ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁵ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

				<u></u>
Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	
Fecal Coliform Bacteria	#/100 ml		200 ²	400 ³
Enterococcus Bacteria	#/100 ml		35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

### Table G-4. Action Levels for Discharges to Ocean Waters (Surf Zone)

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

- ² Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ³ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

### **II. LOS ANGELES RIVER WATERSHED MANAGEMENT AREA**

## Table G-5. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum	
рН	Standard units	6.5-8	3.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³	
Chloride	mg/L	4		
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁵		
Sulfate	mg/L	4		
Total Dissolved Solids	mg/L	4		
Turbidity	NTU	$5^5$		
Aluminum, Total Recoverable	mg/L	1.0 ⁵		
Cyanide, Total Recoverable	µg/L	4.3	8.5	
Copper, Total Recoverable	µg/L	6	6	
Mercury, Total Recoverable	µg/L	0.051	0.10	
Selenium, Total Recoverable	µg/L	4.1	8.2	

Within the range of 6.5 to 8.5 at all times.

2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

## Table G-6. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	6	
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁷	
Sulfate	mg/L	6	
Total Dissolved Solids	mg/L	6	
Turbidity	NTU	5 ⁷	
Aluminum, Total Recoverable	mg/L	1.0 ⁷	
Cyanide, Total Recoverable	µg/L	0.50	1.0

Attachment G - Non-Storm Water Action Levels

Parameter	Units	Average Monthly	Daily Maximum
Copper, Total Recoverable	µg/L	8	8
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

² E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ E. Coli density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁷ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for

Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁸ The applicable action level is the most stringent between corresponding Table H-5 and Table H-7 action levels.

# Table G-7.Action Levels for Discharges to Inland Surface Waters, EnclosedBays, and Estuaries (with receiving water salinity equal to or greater than10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Chloride	mg/L	5	
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁶	
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Turbidity	NTU	5 ⁶	
Aluminum, Total Recoverable	mg/L	1.0 ⁶	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁶ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	Standard units		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		35 ³	104 ⁴
Turbidity	NTU	75	100	225
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

### Table G-8. Action Levels for Discharges to Ocean Waters (Surf Zone)

¹ Within the range of 6.0 to 9.0 at all times.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

### **III. DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA**

## Table G-9. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-8.5 ¹	
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Aercury, Total Recoverable µg/L		0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ E. Coli density in a single sample shall not exceed 235/100 ml.

⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

## Table G-10. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum	
рН	s.u	6.5-8.5 ¹		
E. Coli Bacteria	#/100 ml	126 ²	235 ³	

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Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	$35^4$	104 ⁵
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

¹ Within the range of 6.5 to 8.5 at all times.

E. Coli density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁶ The applicable action level is the most stringent between corresponding Table H-9 and Table H-11 action levels.

# Table G-11. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Baramatar	Unito	Average Menthly	Deily Meyimum
Parameter	Units	Average Monthly	Daily Maximum
рН	s.u	6.5-	
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117
Within the renera of C E to O E a	t all the sec		

Within the range of 6.5 to 8.5 at all times.

Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

### Table G-12. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	s.u		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total	µg/L	3	12	30

Attachment G - Non-Storm Water Action Levels

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Recoverable				
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

¹ Within the range of 6.0 to 9.0 at all times.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

### IV. BALLONA CREEK WATERSHED MANAGEMENT AREA

## Table G-13. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-	8.5 ¹
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

Within the range of 6.5 to 8.5 at all times.

*E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

## Table G-14. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.5-	8.5 ¹
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	$35^4$	104 ⁵
Cyanide	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	1.0
Selenium, Total Recoverable	µg/L	4.1	8.2

Attachment G – Non-Storm Water Action Levels

### **RB-AR4478**

#### Los Angeles County Municipal Separate Storm Sewer System

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- ¹ Within the range of 6.5 to 8.5 at all times.
- ² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.
- ³ *E. Coli* density in a single sample shall not exceed 235/100 ml.
- ⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁶ The applicable action level is the most stringent between corresponding Table H-13 and Table H-15 action levels.

# Table G-15. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

	/			
Parameter	Units	Average Monthly	Daily Maximum	
рН	Standard units	6.5-		
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{3, 4}	
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴	
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴	
Cyanide, Total Recoverable	µg/L	0.50	1.0	
Copper, Total Recoverable	µg/L	2.9	5.8	
Lead, Total Recoverable	µg/L	7.0	14	
Mercury, Total Recoverable	µg/L	0.051	1.0	
Selenium, Total Recoverable	µg/L	58	117	
1 Within the range of 6.5 to 8.5 at all times				

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
рН	Standard units		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml		$35^3$	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

### Table G-16. Action Levels for Discharges to Ocean Waters (Surf Zone)

Within the range of 6.0 to 9.0 at all times.

- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

## V. MALIBU CREEK WATERSHED MANAGEMENT AREA NON-STORM WATER ACTION LEVELS

## Table G-17. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Sulfate	mg/L	3	
Total Dissolved Solids	mg/L	3	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

*E. Coli* density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

## Table G-18. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
E. Coli Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

E. Coli density shall not exceed a geometric mean of 126/100 ml.

² *E. Coli* density in a single sample shall not exceed 235/100 ml.

³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

# Table G-19. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1, 2}	10,000 ^{2, 3}

Attachment G - Non-Storm Water Action Levels

**RB-AR4480** 

		Daily Maximum
#/100 ml	200 ¹	400 ³
#/100 ml	35 ¹	104 ³
mg/L	4	
mg/L	4	
µg/L	0.50	1.0
µg/L	0.051	0.10
µg/L	58	117
	#/100 ml mg/L mg/L μg/L μg/L	#/100 ml         35 ¹ mg/L         4           mg/L         4           μg/L         0.50           μg/L         0.051

Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

### Table G-20. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	
Fecal Coliform Bacteria	#/100 ml		200 ²	400 ³
Enterococcus Bacteria	#/100 ml		35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

### VI. SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

## Table G-21. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.0-	9.0 ¹
E. Coli Bacteria	#/100 ml	126 ²	235 ³
Chloride	mg/L	4	
Nitrate Nitrogen, Total (as N)	mg/L	4	
Sulfate	mg/L	4	
Total Dissolved Solids	mg/L	4	

**RB-AR4481** 

Parameter	Units	Average Monthly	Daily Maximum
Aluminum, Total Recoverable	mg/L	1.0 ⁵	
Cyanide, Total Recoverable	µg/L	4.3	8.5
Cadmium, Total Recoverable	µg/L	6	6
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	6	6
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	6	6
Zinc, Total Recoverable	µg/L	6	6

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

# Table G-22. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units	6.0-	9.0 ¹
E. Coli Bacteria	#/100 ml 126 ²		235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	6	
Nitrate Nitrogen, Total (as N)	mg/L	6	
Sulfate	mg/L	6	
Total Dissolved Solids	mg/L	6	
Aluminum, Total Recoverable	mg/L	1.0 ⁷	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Cadmium, Total Recoverable	µg/L	8	8
Copper, Total Recoverable	µg/L	8	8
Lead, Total Recoverable	µg/L	8	8
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	8	8
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	8	8
Zinc, Total Recoverable	µg/L	8	8

Within the range of 6.5 to 8.5 at all times.

² *E. Coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. Coli* density in a single sample shall not exceed 235/100 ml.

⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

Attachment G - Non-Storm Water Action Levels

# **RB-AR4482**

#### Los Angeles County Municipal Separate Storm Sewer System

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- ⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.
- ⁷ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁸ The applicable action level is the most stringent between corresponding Table H-21 and Table H-23 action levels.

# Table G-23. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
рН	Standard units		-9.0 ¹
Total Coliform Bacteria	#/100 ml	1,000 ^{2, 3}	10,000 ^{2, 4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Chloride	mg/L	5	
Nitrate Nitrogen, Total (as N)	mg/L	5	
Sulfate	mg/L	5	
Total Dissolved Solids	mg/L	5	
Aluminum, Total Recoverable	mg/L	1.0 ⁶	
Cyanide, Total Recoverable	µg/L	0.50	1.0
Cadmium, Total Recoverable	µg/L	7.7	15
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	6.8	14
Silver, Total Recoverable	µg/L	1.1	2.2
Selenium, Total Recoverable	µg/L	58	117
Zinc, Total Recoverable	µg/L	47	95

Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Tables 3-8 and 3-10 of the Basin Plan.

⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

### Table G-24. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median Daily Maximum		Instantaneous Maximum
рН	Standard units		6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	
Fecal Coliform Bacteria	#/100 ml		200 ³	400 ⁴
Enterococcus	#/100 ml		$35^3$	104 ⁴

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1	4	10
1	4	10
3	12	30
2	8	20
0.04	0.16	0.4
5	20	50
0.7	2.8	7.0

60

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Units

µg/L

µg/L

µg/L

µg/L

µg/L

µg/L

µg/L

µg/L

6-Month Median

.

15

Parameter

Cyanide, Total

Recoverable Cadmium, Total

Recoverable Copper, Total

Recoverable Lead, Total

Recoverable Mercury, Total

Recoverable Nickel, Total

Recoverable Silver, Total

Recoverable Selenium, Total

Recoverable Zinc, Total

Recoverable

2

3

Instantaneous **Daily Maximum** Maximum 10 .

inc, Total ecoverable	µg/L	20	80	200	
Within the range of 6.0			ntion on determined by	the Regional Water Rea	rd tha
				the Regional Water Boa at of the samples shall ex	
230/100 ml.	.,			· · · · · · ·	
5		d a geometric mean of 2	200/100 ml. Enterococcu	is density shall not excee	∋d a
geometric mean of 35/1	00 ml.				

geometric mean of 35/100 ml. 4 Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

#### VII. HARDNESS-BASED ACTION LEVELS FOR METALS

			Cadmium, T	otal Reco	verable			
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
5.0	0.1	0.2	125.0	2.4	4.8	245.0	4.1	8.2
10.0	0.2	0.3	130.0	2.5	5.0	250.0	4.1	8.3
15.0	0.3	0.5	135.0	2.5	5.1	255.0	4.2	8.4
20.0	0.4	0.7	140.0	2.6	5.3	260.0	4.3	8.5
25.0	0.5	0.9	145.0	2.7	5.4	265.0	4.3	8.7
30.0	0.6	1.2	150.0	2.8	5.5	270.0	4.4	8.8
35.0	0.7	1.4	155.0	2.8	5.7	275.0	4.5	8.9
40.0	0.8	1.6	160.0	2.9	5.8	280.0	4.5	9.1
45.0	0.9	1.8	165.0	3.0	6.0	285.0	4.6	9.2
50.0	1.0	2.1	170.0	3.1	6.1	290.0	4.6	9.3
55.0	1.1	2.3	175.0	3.1	6.3	295.0	4.7	9.4
60.0	1.3	2.5	180.0	3.2	6.4	300.0	4.8	9.6
65.0	1.4	2.8	185.0	3.3	6.5	310.0	4.9	9.8
70.0	1.5	3.0	190.0	3.3	6.7	320.0	5.0	10.1
75.0	1.6	3.2	195.0	3.4	6.8	330.0	5.1	10.3
80.0	1.7	3.4	200.0	3.5	7.0	340.0	5.3	10.5
85.0	1.8	3.6	205.0	3.5	7.1	350.0	5.4	10.8

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	Cadmium, Total Recoverable									
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)		
90.0	1.9	3.7	210.0	3.6	7.2	360.0	5.5	11.0		
95.0	1.9	3.9	215.0	3.7	7.4	370.0	5.6	11.3		
100.0	2.0	4.0	220.0	3.7	7.5	380.0	5.7	11.5		
105.0	2.1	4.2	225.0	3.8	7.6	390.0	5.9	11.7		
110.0	2.2	4.3	230.0	3.9	7.8	400.0	6.0	12.0		
115.0	2.2	4.5	235.0	3.9	7.9	>400	6.0	12.0		
120.0	2.3	4.7	240.0	4.0	8.0					

			Copper, To	tal Recov	erable			
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
5.0	0.4	0.8	125.0	8.6	17.2	245.0	16.2	32.5
10.0	0.8	1.6	130.0	8.9	17.9	250.0	16.5	33.1
15.0	1.2	2.3	135.0	9.2	18.5	255.0	16.8	33.8
20.0	1.5	3.1	140.0	9.6	19.2	260.0	17.1	34.4
25.0	1.9	3.8	145.0	9.9	19.8	265.0	17.4	35.0
30.0	2.2	4.5	150.0	10.2	20.5	270.0	17.8	35.6
35.0	2.6	5.2	155.0	10.5	21.1	275.0	18.1	36.2
40.0	2.9	5.9	160.0	10.8	21.8	280.0	18.4	36.9
45.0	3.3	6.6	165.0	11.2	22.4	285.0	18.6	37.4
50.0	3.6	7.3	170.0	11.5	23.0	290.0	18.9	38.0
55.0	4.0	8.0	175.0	11.8	23.7	295.0	19.2	38.5
60.0	4.3	8.6	180.0	12.1	24.3	300.0	19.5	39.1
65.0	4.6	9.3	185.0	12.4	25.0	310.0	20.0	40.2
70.0	5.0	10.0	190.0	12.8	25.6	320.0	20.6	41.3
75.0	5.3	10.7	195.0	13.1	26.2	330.0	21.1	42.4
80.0	5.6	11.3	200.0	13.4	26.9	340.0	21.7	43.5
85.0	6.0	12.0	205.0	13.7	27.5	350.0	22.2	44.6
90.0	6.3	12.7	210.0	14.0	28.1	360.0	22.8	45.7
95.0	6.6	13.3	215.0	14.3	28.7	370.0	23.3	46.8
100.0	7.0	14.0	220.0	14.6	29.4	380.0	23.8	47.8
105.0	7.3	14.6	225.0	15.0	30.0	390.0	24.4	48.9
110.0	7.6	15.3	230.0	15.3	30.6	400.0	24.9	50.0
115.0	7.9	15.9	235.0	15.6	31.3	>400	24.9	50.0
120.0	8.3	16.6	240.0	15.9	31.9			

Lead, Total Recoverable								
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
5.0	0.1	0.1	125.0	3.5	6.9	245.0	8.1	16.3
10.0	0.1	0.3	130.0	3.6	7.3	250.0	8.3	16.7

Attachment G - Non-Storm Water Action Levels

# **RB-AR4485**

Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

			Lead, Tota	al Recove	rable			
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
15.0	0.2	0.5	135.0	3.8	7.6	255.0	8.6	17.2
20.0	0.3	0.7	140.0	4.0	8.0	260.0	8.8	17.6
25.0	0.4	0.9	145.0	4.2	8.4	265.0	9.0	18.0
30.0	0.6	1.1	150.0	4.4	8.7	270.0	9.2	18.5
35.0	0.7	1.4	155.0	4.5	9.1	275.0	9.4	18.9
40.0	0.8	1.6	160.0	4.7	9.5	280.0	9.6	19.3
45.0	0.9	1.9	165.0	4.9	9.9	285.0	9.9	19.8
50.0	1.1	2.2	170.0	5.1	10.2	290.0	10.1	20.2
55.0	1.2	2.4	175.0	5.3	10.6	295.0	10.3	20.7
60.0	1.4	2.7	180.0	5.5	11.0	300.0	10.5	21.1
65.0	1.5	3.0	185.0	5.7	11.4	310.0	11.0	22.0
70.0	1.7	3.3	190.0	5.9	11.8	320.0	11.4	22.9
75.0	1.8	3.6	195.0	6.1	12.2	330.0	11.9	23.8
80.0	2.0	3.9	200.0	6.3	12.6	340.0	12.3	24.8
85.0	2.1	4.2	205.0	6.5	13.0	350.0	12.8	25.7
90.0	2.3	4.6	210.0	6.7	13.4	360.0	13.3	26.6
95.0	2.4	4.9	215.0	6.9	13.8	370.0	13.7	27.6
100.0	2.6	5.2	220.0	7.1	14.2	380.0	14.2	28.5
105.0	2.8	5.5	225.0	7.3	14.6	390.0	14.7	29.5
110.0	2.9	5.9	230.0	7.5	15.1	400.0	15.2	30.5
115.0	3.1	6.2	235.0	7.7	15.5	>400	15.2	30.5
120.0	3.3	6.6	240.0	7.9	15.9			

			Nickel, Tot	al Recove	erable			
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
5.0	3.4	6.8	125.0	51.5	103.3	245.0	90.9	182.5
10.0	6.1	12.2	130.0	53.2	106.7	250.0	92.5	185.6
15.0	8.6	17.2	135.0	54.9	110.2	255.0	94.1	188.7
20.0	10.9	21.9	140.0	56.6	113.6	260.0	95.6	191.9
25.0	13.2	26.5	145.0	58.3	117.1	265.0	97.2	195.0
30.0	15.4	30.9	150.0	60.0	120.5	270.0	98.7	198.1
35.0	17.5	35.2	155.0	61.7	123.9	275.0	100.3	201.2
40.0	19.6	39.4	160.0	63.4	127.2	280.0	101.8	204.3
45.0	21.7	43.5	165.0	65.1	130.6	285.0	103.3	207.4
50.0	23.7	47.6	170.0	66.8	133.9	290.0	104.9	210.4
55.0	25.7	51.6	175.0	68.4	137.3	295.0	106.4	213.5
60.0	27.7	55.5	180.0	70.1	140.6	300.0	107.9	216.6
65.0	29.6	59.4	185.0	71.7	143.9	310.0	111.0	222.7
70.0	31.5	63.2	190.0	73.3	147.1	320.0	114.0	228.7
75.0	33.4	67.0	195.0	75.0	150.4	330.0	117.0	234.7
80.0	35.3	70.8	200.0	76.6	153.7	340.0	120.0	240.7

# **RB-AR4486**

Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

Nickel, Total Recoverable								
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
85.0	37.1	74.5	205.0	78.2	156.9	350.0	123.0	246.7
90.0	39.0	78.2	210.0	79.8	160.2	360.0	125.9	252.7
95.0	40.8	81.9	215.0	81.4	163.4	370.0	128.9	258.6
100.0	42.6	85.5	220.0	83.0	166.6	380.0	131.8	264.5
105.0	44.4	89.1	225.0	84.6	169.8	390.0	134.8	270.4
110.0	46.2	92.7	230.0	86.2	173.0	400.0	137.7	276.2
115.0	48.0	96.2	235.0	87.8	176.1	>400	137.7	276.2
120.0	49.7	99.8	240.0	89.4	179.3			

Zinc, Total Recoverable								
Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO3)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃ )	AMAL (µg/L)	MDAL (µg/L)
5.0	4.7	9.4	125.0	72.0	144.5	245.0	127.4	255.6
10.0	8.5	17.0	130.0	74.5	149.4	250.0	129.6	260.0
15.0	11.9	24.0	135.0	76.9	154.2	255.0	131.8	264.4
20.0	15.2	30.6	140.0	79.3	159.1	260.0	134.0	268.8
25.0	18.4	37.0	145.0	81.7	163.9	265.0	136.1	273.1
30.0	21.5	43.1	150.0	84.1	168.6	270.0	138.3	277.5
35.0	24.5	49.1	155.0	86.4	173.4	275.0	140.5	281.9
40.0	27.4	55.0	160.0	88.8	178.1	280.0	142.6	286.2
45.0	30.3	60.8	165.0	91.1	182.8	285.0	144.8	290.5
50.0	33.1	66.5	170.0	93.5	187.5	290.0	146.9	294.8
55.0	35.9	72.1	175.0	95.8	192.2	295.0	149.1	299.1
60.0	38.7	77.6	180.0	98.1	196.8	300.0	151.2	303.4
65.0	41.4	83.0	185.0	100.4	201.4	310.0	155.5	312.0
70.0	44.1	88.4	190.0	102.7	206.0	320.0	159.7	320.5
75.0	46.7	93.7	195.0	105.0	210.6	330.0	163.9	328.9
80.0	49.3	99.0	200.0	107.3	215.2	340.0	168.1	337.4
85.0	51.9	104.2	205.0	109.5	219.8	350.0	172.3	345.8
90.0	54.5	109.4	210.0	111.8	224.3	360.0	176.5	354.1
95.0	57.1	114.5	215.0	114.0	228.8	370.0	180.6	362.4
100.0	59.6	119.6	220.0	116.3	233.3	380.0	184.8	370.7
105.0	62.1	124.7	225.0	118.5	237.8	390.0	188.9	379.0
110.0	64.6	129.7	230.0	120.7	242.3	400.0	193.0	387.2
115.0	67.1	134.7	235.0	123.0	246.7	>400	193.0	387.2
120.0	69.6	139.6	240.0	125.2	251.2			

### ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

#### MUNICIPAL ACTION LEVELS VIII.

# **Conventional Pollutants**

Pollutants	рН	TSS mg/L	COD mg/L	Kjedahl Nitrogen (TKN) mg/L	Nitrate & Nitrite- total mg/L	P- total mg/L
Municipal Action Level	7.70	264.1	247.5	4.59	1.85	0.80

# Metals

Pollutants	Cd- total	Cr-total	Cu- total	Pb- total	Ni- total	Zn- total	Hg- total
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Municipal Action Level	2.52	20.20	71.12	102.00	27.43	641.3	0.32

This Order establishes Municipal Action Levels (MALs) to identify subwatersheds requiring A additional Best Management Practices (BMPs) to reduce pollutant loads and prioritize implementation of additional BMPs. MALs for selected pollutants are based on nationwide Phase MS4 for pollutants Т monitorina data in storm water (http://unix.eng.ua.edu/~rpitt/Research/ms4/mainms4.shtml, last visited on May 9, 2012). The MALs were obtained by computing the upper 25th percentile for selected pollutants for Rain Zone 6.

Under this Order, the Municipal Action Levels (MALs) shall be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the MALs. Within those subwatersheds where pollutant levels in the discharge are in excess of the MALs, Permittees shall implement controls and measures necessary to reduce the discharge of pollutants.

In order to determine if MS4 discharges are in excess of the MALs, Permittees shall conduct outfall monitoring as required in the Monitoring and Reporting Program (MRP) (Attachment E). A MAL Assessment Report shall be submitted to the Regional Water Board Executive Officer as part of the Annual Report. The MAL Assessment Report shall present the monitoring data in comparison to the applicable MALs, and identify those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs listed in this attachment in discharges of storm water from the MS4.

Beginning in Year 3 after the effective date of this Order, each Permittee shall submit a MAL Action Plan with the Annual Report (first MAL Action Plan due with December 15, 2013 Annual Report) to the Regional Water Board Executive Officer, for those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in any discharge of storm water from the MS4. The plan shall include an assessment of the sources responsible Attachment G – Non-Storm Water Action Levels G-17



Los Angeles County Municipal Separate Storm Sewer System ORDER NO. R4-2012-XXXX NPDES NO. CAS004001

for the MAL exceedances, the existing storm water programs and BMPs that address those sources, an assessment of potential program enhancements, alternative BMPs and actions the Permittee shall implement to reduce discharges to a level that is equivalent to or below the MALs, and an implementation schedule for such actions for Executive Officer approval. The MAL Action Plan shall provide the technical rationale to demonstrate the proposed measures and controls will attain the MALs. If the MAL Action Plan is not approved within 90 days of the due date, the Executive Officer may establish an appropriate plan with at least 90 day notification and consultation to the Permittees.

Within 90 days of the plan approval by the Regional Water Board Executive Officer, the Permittee shall initiate the BMPs and actions proposed in the MAL Action Plan, together with any other practicable BMPs or actions that the Executive Officer determines to be necessary to meet the MALs. The Permittee shall complete the proposed actions in accordance with the approved implementation schedule.

Upon completion of the actions specified in the approved MAL Action Plan, the Permittee shall re-monitor the subject subwatershed in accordance with the MRP, and submit a Post-Project MAL Assessment Report to the Regional Water Board Executive Officer.

As additional data become available through the MRP or from the Regional Subset of the National Dataset, MALs may be revised annually by the Regional Water Board Executive Officer in accordance with an equivalent statistical method as that used to establish the MALs in this attachment with at least 90 day notification and consultation to the Permittees.

# LYRIS MAILING

# **RB-AR4489**

	LYRIS MAILING	
	LIST NAME: LA CO MSA	
DATEJOINED_	EMAILADDR DATE MAILED VIIGT	FULLNAME_
2/2/2011 12:04	ADRIEN236@VLPRODUCE.COM	ADRIEN F. MADDALENC
6/22/2010 11:57	AEMiller@waterboards.ca.gov	Alan E. Miller
3/27/2012 13:25	Berry.Ueoka@EverestConsultants.com	Berry Ueoka
3/22/2012 15:22	BryantA@lwa.com	Bryant Alvarado
11/15/2010 7:46	CaliforniaWaterTechnologies@gmail.com	Carlos Aguilar
	City_manager@ci.glendora.ca.us	Chris Jeffers
	DLiu@DiamondBarCA.Gov	David G. Liu
	Dan. Askenaizer @WQTS.com	Dan Askenaizer
6/11/2011 22:09	Daniel.Lee@Arcadis-us.com	Daniel K. Lee
2/22/2010 18:03	Dave@Bubalo.com	Dave Sorem
	Debbie.Neev@gmail.com	Deborah Neev
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3/2/2012 14:56 acallotdavis@rbf.com 2/16/2012 14:54 aclark@calwater.com 9/9/2010 15:25 acruz@ci.burbank.ca.us 7/6/2009 13:19 adahlerbruch@cityofrh.net 12/12/2011 10:54 adanortega@me.com 7/9/2009 10:07 aestrada@sogate.org 7/6/2009 13:47 afarassati@cityofcalabasas.com 7/6/2009 13:54 aharrington@ci.claremont.ca.us 7/28/2009 8:26 aibanezjr@gmail.com 7/6/2009 13:46 ajensen@ci.walnut.ca.us 8/3/2009 8:54 alasso@dpw.lacounty.gov 3/7/2012 9:57 alex@acgever.com 11/16/2011 8:59 alexh@ci.commerce.ca.us 1/18/2010 9:55 alfonso.nunez@erm.com 9/10/2010 15:36 alfredo.magallanes@lacity.org 6/7/2011 14:18 alindgren@campbellfoundation.org 9/9/2009 12:40 allenv@contech-cpi.com 4/13/2011 15:25 alopez@llenviroinc.com 7/6/2009 13:58 amelia@hulsenv.com 7/6/2009 13:39 amho@montereypark.ca.gov 1/26/2010 12:53 and rew.t.arcuri@medtronic.com 8/27/2009 13:14 andy.niknafs@ladwp.com 11/16/2011 8:39 andyw@rpv.com 3/30/2012 10:48 ankitavyas@rbf.com 11/9/2011 9:30 anthony.hicke@rcslade.com 1/31/2011 12:11 anu.b.garg@boeing.com 7/6/2009 13:18 arigg@pvestates.org 5/6/2010 7:56 arne.anselm@ventura.org 7/6/2009 13:41 ashadbehr@cityofhawthorne.org 1/23/2013 8:41 asheldon@malibucity.org 10/31/2011 10:33 ashlid@lwa.com 12/1/2011 10:29 athomas@dpw.lacounty.gov 1/3/2013 7:48 atwater.richard@gmail.com 7/9/2009 9:57 avarela@lakewoodcity.org 8/12/2010 8:44 bakhavan@mwdh2o.com 12/22/2011 11:16 barbara.klos@urs.com 1/18/2011 13:37 bbax@lacsd.org 11/9/2011 10:17 bburgess6410@yahoo.com 10/15/2012 8:15 bdawadi@civiltec.com 7/1/2012 18:03 bdepoto@yahoo.com 12/20/2012 16:02 betsye@lwa.com 7/6/2009 13:19 bill.workman@redondo.org 7/6/2009 13:44 biniguez@bellflower.org 7/6/2009 13:38 binman@ci.sierra-madre.ca.us 7/8/2009 10:48 binman@cityofsierramadre.com 6/3/2010 12:43 blosey@rbf.com 7/6/2009 13:20 bmichaelis@ci.san-dimas.ca.us

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Miguel Luna Mike Antos Mike O'Grady Mitch Whitson Mitch Mysliwiec Michel Kadah

4/28/2011 10:03 mkearney@waterboards.ca.gov 7/6/2009 13:04 mkeith@cityofbradbury.org 3/9/2010 9:38 mkinsler@wheelerandgray.com 11/10/2011 10:26 mkirrene@verizon.net 11/16/2011 8:44 mkolbenschlag@aei-casc.com 7/6/2009 13:08 mlansdell@ci.gardena.ca.us 4/13/2012 15:01 mlcoffee@nossaman.com 9/26/2012 11:15 mmcmeechan@environcorp.com 11/16/2011 8:00 mmostahkami@sogate.org 9/11/2012 15:52 mmotto@geosyntec.com 7/6/2009 13:58 mmunoz@cityoflamirada.org 11/16/2011 7:57 mogrady@cerritos.us 7/6/2009 13:47 moillataguerre@ci.glendale.ca.us 5/26/2010 8:55 morton.price@lacity.org 3/6/2012 11:30 mpassanisi@breeneng.com 7/6/2009 13:11 mpestrel@dpw.lacounty.gov 3/22/2012 14:29 msgrajeda@picowaterdistrict.net 9/3/2009 14:01 msolorzano@mclam.com 7/31/2012 10:31 mthorme@downeybrand.com 9/14/2012 12:16 myanai@counsel.lacounty.gov 7/13/2012 11:30 myoung@awattorneys.com 11/8/2011 14:01 myriam.cardenas@smgov.net 7/24/2012 19:24 naomistone@mugenkioku.com 3/9/2010 9:28 nascarjws@yahoo.com 7/6/2009 13:52 nasser.sh@lcf.ca.gov 5/20/2010 7:53 navedissian@quakercityplating.com 7/29/2009 13:55 ndupont@rwglaw.com 7/6/2009 13:43 neal.shapiro@smgov.net 11/5/2011 20:04 neilandeb@aol.com 8/6/2009 11:06 ngarrison@nrdc.org 11/30/2009 11:21 nisheeth.kakarala@lacity.org 8/13/2012 19:24 njohnson@waterboards.ca.gov 8/7/2012 15:02 nmartorano@waterboards.ca.gov 7/6/2009 13:43 ocramer@santa-clarita.com 10/28/2011 14:52 ogalang@brwncald.com 11/9/2010 15:30 ogalang@dpw.lacounty.gov 1/15/2013 13:39 oliver.slosser@us.mwhglobal.com 8/3/2009 12:35 olivia@malibutimes.com 8/9/2010 10:52 paul.ahn@sce.com 7/17/2009 15:05 paul.singarella@lw.com 5/4/2012 15:16 pauling.sun@tetratech.com 1/12/2010 8:06 pcmsusa@hotmail.com 7/6/2009 13:41 pelkins@carson.ca.us 5/17/2012 15:48 pete halpin@caltestlabs.com 9/16/2011 9:48 ply@wrd.org 2/27/2010 15:59 pmglick@gmail.com 1/26/2013 11:00 pooprintswest@gmail.com

Michelle Kearney Michelle Keith Mary Kinsler Michael Kirrene Michael Kolbenschlag Mitchell G. Lansdell Mary Lynn K. Coffee Melissa McMeechan Mohammad Mostahkami Megan Otto Marlin Munoz Mike OGrady Maurice Oillataguerre Morton Price Mercedes Passanisi Mark Pestrella Mark Graieda Marcela Solorzano Melissa Thorme Mark Yanai Marie W. Young Myriam Cardenas Naomi Stone John Schwartz Nasser Shoushtarian NICK AVEDISSIAN Norman Dupont Neal Shapiro Neil Dipprey Noah Garrison Nisheeth Kakarala Nicole Johnson Nicholas Martorano Oliver Cramer Oliver D. Galang PE Oliver Galang Oliver Slosser Olivia Damavandi Paul ahn Paul Singarella Pauling Sun Raymond Wells PhD Patricia Elkins Peter Halpin Phuong Ly Peter Glick Kevin Sharpton

10/12/2010 14:27 quangtran59@gmail.com 4/1/2011 14:18 r.appy@cox.net 9/23/2010 7:17 rabbott5@toromail.csudh.edu 2/1/2011 11:42 rasancho@dpw.lacounty.gov 7/4/2012 11:03 razzip1@aol.com 11/16/2011 9:01 rbeste@torranceca.gov 7/6/2009 13:17 rbow@ci.monrovia.ca.us 2/17/2012 9:50 rchristmann@waterboards.ca.gov 7/6/2009 13:22 rdickey@sogate.org 12/28/2011 16:43 rdrayse@treepeople.org 8/15/2011 13:46 reddy.pakala@ventura.org 9/16/2009 14:00 rehsiteworks@aol.com 7/6/2009 13:42 rfajardo@elsegundo.org 8/24/2009 9:40 rfreeman@lawa.org 7/2/2010 12:04 rfwpetro@verizon.net 7/6/2009 13:17 rhaley@lynwood.ca.us 3/10/2011 9:37 rhs@malibufamilywines.com 2/16/2011 11:54 ricardo.moreno@sce.com 2/12/2010 15:00 ricardo.moreno@ventura.org 11/25/2011 12:08 richard@coloramanurserv.com 11/16/2011 8:54 rick.valte@smgov.net 7/6/2009 13:48 rkenny@soelmonte.org 10/3/2012 15:30 rmcpherson@portla.org 11/9/2011 16:38 rmontevideo@rutan.com 1/3/2013 12:06 rnamvar@rmcwater.com 10/27/2011 12:53 rnewman@santa-clarita.com 5/10/2010 17:08 robert.ruscitto@arcadis-us.com 8/2/2010 9:32 robert.skands@pardeehomes.com 11/28/2011 15:36 robert@ssseeds.com 7/6/2009 13:41 robertz@ci.commerce.ca.us 2/10/2011 16:44 rolly@kal-plastics.com 11/16/2011 7:16 rond@rpv.com 11/9/2010 15:42 rorton@lvmwd.com 10/30/2012 12:51 rpiamonte@dpw.lacounty.gov 2/1/2011 8:56 rpurdy@waterboards.ca.gov 7/6/2009 13:20 rruiz@sfcity.org 7/6/2009 13:53 rsalas@lapuente.org 10/28/2009 14:20 rsoto@ci.vernon.ca.us 7/6/2009 13:49 rtahir@tecsenv.com 3/4/2011 13:50 rtremblay@lacsd.org 7/6/2009 13:53 rvasquez@scsengineers.com 4/14/2010 11:46 rveiga@waterboards.ca.gov 11/12/2012 20:28 rw@malibu-arts-journal.com 3/23/2011 11:22 rwang@dpw.lacounty.gov 4/8/2011 13:18 rwatson@rwaplanning.com 8/6/2009 16:44 rwellington@willdan.com 7/6/2009 13:23 rwishner@ci.walnut.ca.us

Quang Tran Ralph Appy Rodney Abbott Randall Sancho Paul V. Ferrazzi Rob Beste Ron Bow Rebecca Christmann Robert T. Dickey Rebecca Drayse Reddy Pakala Ray E. Hensley Ron Fajardo Robert Freeman Darry White **Roger Haley** Ronald H. Semler Ricardo E. Moreno Ricardo Moreno Richard Wilson Rick Valte Ron Kenny Rachel McPherson Richard Montevideo Reza Namvar Robert Newman Robert Ruscitto Robert Skands **Robert Sjoquist** Robert Zarrilli Rolly A. Panganiban Ron Dragoo, P.E. Randal D. Orton Ph.D. D.Env. Rafael Piamonte Renee Purdy Ron Ruiz Rene Salas Rafael Soto Ray Tahir Raymond L Tremblay Ralph Vasquez Rebecca Veiga Nascimento

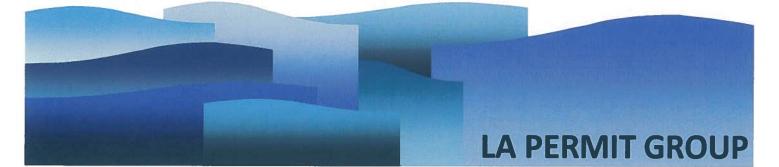
Ruby Wang Richard A. Watson Ray Wellington Rob Wishner

2/15/2011 10:36 s.guldimann@gmail.com 7/6/2009 13:49 sam.gutierrez@westcovina.org 6/15/2012 13:49 sandym@lwa.com 7/6/2009 13:52 sarinamoraleschoate@santafesprings.org 8/3/2009 6:17 sbarankiewicz@ohslegal.com 8/3/2009 10:47 scheng@sgch.org 1/28/2013 18:35 scott@arroyoseco.org 12/13/2011 11:08 sean.j.dunn@damco.com 5/3/2010 17:44 selimeren@gmail.com 11/9/2010 15:56 seth.carr@lacity.org 6/7/2012 10:43 sfleischli@nrdc.org 7/6/2009 13:43 sfurukawa@ci.south-pasadena.ca.us 7/6/2009 13:25 sgrund@lacsd.org 7/6/2009 13:11 shahram.Kharaghani@lacity.org 2/21/2012 8:50 shawn.hagerty@bbklaw.com 11/16/2011 8:40 shenley@covinaca.gov 8/16/2012 16:37 simran@northeasttrees.org 7/6/2009 11:32 skelley@waterboards.ca.gov 9/14/2012 14:28 smandegari@greenesol.com 2/23/2011 10:55 smartin@remet.com 11/30/2009 14:50 smurow@moote.com 11/16/2011 8:01 smyrter@cityofsignalhill.org 2/2/2011 14:43 snania@forester.net 9/10/2009 15:31 snissman@bos.lacounty.gov 7/6/2009 13:46 sochoa@ci.monrovia.ca.us 5/11/2012 14:33 soligeorge@chevron.com 6/6/2012 16:51 speristein@weho.org 11/9/2012 10:07 srapoport@waterboards.ca.gov 11/15/2011 15:20 srigg@ci.vernon.ca.us 5/31/2011 16:28 ssanchez@bialav.org 1/30/2012 13:55 ssantilena@healthebay.org 2/9/2012 12:40 sschuyler@biasc.org 12/20/2011 12:32 stanleys@uppercrustent.com 11/16/2011 8:59 steve.huang@redondo.org 1/14/2010 14:32 stormwatercentral@gmail.com 6/19/2012 17:02 sturney@weho.org 5/31/2011 16:33 suhles@delanegroup.com 5/27/2012 12:38 suzi youssef@ymail.com 11/16/2011 8:46 swalker@cityofpasadena.net 5/27/2010 11:33 symeon.finch@orco.com 7/6/2009 13:08 szurn@ci.glendale.ca.us 11/10/2011 9:40 tajenkins@sgvwater.com 6/8/2012 15:29 tattnlaw@gmail.com 7/6/2009 13:04 tcoroalles@cityofcalabasas.com 7/31/2009 15:57 tford@smbaykeeper.org 2/23/2012 8:33 tiffanyshedrick@santafesprings.org 5/31/2011 16:30 tom.mitchell@pardeehomes.com

Suzanne Guldimann Sam Gutierrez Sandy Mathews Sarina Morales-Choate Stan M. Barankiewicz II Angela Cheng Scott David Cher Sean Dunn SELIM EREN seth carr Steve Fleischli Shin Furukawa Shannon Grund Shahram Kharaghani Shawn Hagerty Steve Henley Simran Sikand Sandra Kelley shirin mandegari Scott Martin Steven Murow Steve Myrter Susan Nissman Scott Ochoa Soli George Sharon Perlstein Shana Rapoport Scott Rigg Sandy Sanchez Susie Santilena steven schuyler Stanley Shimabuku Steve Huang Anna Hensley Susannah Turney Scott Uhles Suzi Youssef Stephen Walker Symeon Finch Stephen M. Zurn Thomas A. Jenkins JOHNTOMMY ROSAS Anthony Coroalles Tom Ford Tiffany Shedrick Tom Mitchell

12/15/2009 10:51 tony.barboza@latimes.com 3/23/2010 11:19 tony.pepe@csun.edu 9/16/2010 10:20 tony@csstudios.com 1/10/2013 12:07 tpershing@bos.lacounty.gov 2/20/2012 13:01 tracy@egoscuelaw.com 7/6/2009 13:10 trobinson@cityoflamirada.org 7/6/2009 11:29 trodgers@waterboards.ca.gov 11/14/2011 8:33 tsmith@bonterraconsulting.com 7/6/2009 12:59 ttait@ci.arcadia.ca.us 7/6/2009 13:22 tybarra@soelmonte.org 4/3/2011 19:01 uhdenr@metro.net 6/17/2011 20:16 uyeda@pbworld.com 7/6/2009 13:42 vcastro@ci.covina.ca.us 4/11/2011 13:02 vcastro@covinaca.gov 1/24/2011 11:30 vhevener@ci.arcadia.ca.us 11/27/2012 13:08 vickere.murphy@sen.ca.gov 11/7/2011 11:10 victor.kennedy@cshs.org 11/16/2011 8:39 vpeterson@malibucity.org 10/28/2010 12:38 vsalazar@ldcla.com 7/6/2009 13:03 vsinghal@baldwinpark.com 2/18/2011 11:31 wade@grahamstudio.net 6/29/2011 9:59 wcaffrey@vandermostconsulting.com 12/29/2011 11:17 welchrc@pbworld.com 11/14/2011 16:14 wgross@lacsd.org 8/6/2012 10:00 wjohnson@dpw.lacounty.gov 7/6/2009 13:52 wrlindinc@aol.com 8/17/2011 11:33 wynesta@earthlink.net 11/16/2011 8:58 ykwan@lcf.ca.gov 7/6/2009 13:35 ys@cityofrh.net 12/6/2010 17:34 ysim@dpw.lacounty.gov 1/30/2013 17:53 zack@waterqualityconsultinggroup.com 9/17/2010 8:45 zora.baharians@lacity.org

Tony Barboza Tony Pepe Tony Ignacio Timothy Pershing Tracy Egoscue Tom E. Robinson Theresa Rodgers Thomas Smith Tom Tait Tony Ybarra Roger Uhden Pamela Uyeda Vivian Castro Vivian Castro Vanessa Hevener Vickere Murphy Victor Kennedy Vic Peterson Victor Salazar PE Vijay Singhal Wade Graham wade caffrey Robert Welch bill gross William Johnson Wes Lind Wynesta Dale Ying Kwan Yolanta Schwartz Youn Sim Zack Moran Zora



July 2, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

#### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review the draft NPDES Permit for MS4 Discharges needed to make this process **open and transparent**.

The LA Permit Group is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however our permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the LA Permit Group has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The LA Permit Group is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,

# **RB-AR4503**

- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and then
- prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The <u>45-day comment period does not allow time for permittees to fully discuss the permit amongst each other</u> in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, permittee (City) staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The LA Permit Group respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (626) 932-5577 or hmaloney@ci.monrovia.ca.us.

Sincerelv

Heather M. Maloney, Chair LA Permit Group

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Senator Bob Huff



COMMUNITY SERVICES & WATER DEPARTMENT Samuel Kevin Wilson, Director of Community Services & Water 4305 Santa Fe Avenue, Vernon, California 90058 Telephone (323) 583–8811 Fax (323) 826-1435

July 3, 2012

N-1 Via Electronic Mail – <u>LAMS42012@waterboards.ca.gov</u>

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, California 90013

### RE: REQUEST FOR PUBLIC REVIEW AND COMMENT PERIOD TIME EXTENSION REGARDING THE TENTATIVE NPDES PERMIT FOR MS4 DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, INCLUDING UNINCORPORATED AREAS OF LOS ANGELES COUNTY, AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH (NPDES PERMIT NO. CAS004001)

Dear Honorable Chairperson Mehranian:

On behalf of the City of Vernon, a named Permittee of the tentative National Pollutant Discharge Elimination System (NPDES) for Municipal Separate Storm Sewer System (MS4) Discharges within the Los Angeles County Flood Control District, including unincorporated areas of Los Angeles County and the incorporated cities therein, except the City of Long Beach (NPDES Permit No. CAS004001), we request at minimum a 180-day time extension to review and comment on the aforementioned permit. We would like to express our interest in submitting comments, but the 45-day comment period provided to Permittees is an insufficient amount of time to perform an adequate review and provide meaningful comments. Additionally, we request that a revised tentative permit be released with a reasonable comment period so that Permittees have the opportunity to review any changes made to the permit and have an opportunity to provide comments prior to the adoption hearing.

The draft Los Angeles County NPDES MS4 Permit is not only voluminous, it is also an exceptionally complex technical document with requirements that are enormously intricate and have significant, far-reaching implications. The requirements deal not just with the compliance points but also with compliance schedules that immediately place the Permittees out of compliance and potentially liable for third-party lawsuits. As a Permittee, we are just beginning to understand the range of risks that might result from these requirements.

Moreover, the opportunity for public comment on other NPDES Permits such as the Caltrans, Ventura County NPDES MS4 and General Construction Permits was much more generous and as much

Exclusively Industrial

as two (2) years to review these respective draft NPDES permits. The City needs adequate time to carefully review each of the requirements and provide meaningful comments. A forty-five (45) day comment period is simply an inadequate amount of time to fully examine the tentative Los Angeles County NPDES MS4 permit.

We understand that Los Angeles Regional Water Quality Control Board staff has set July 23, 2012, as the deadline for Permittees to submit comments on the draft permit. Yet this is insufficient time for our staff to review the 500+page permit, fully understand the implications of the permit, its effects on both the City's resources and financial capabilities then to meet and confer with our management and City Council. With so much at stake the impacted cities review should not be rushed and sacrificed.

In anticipation of the Supreme Court's decision to hear the Los Angeles County's appeal on the case involving NRDC v. Los Angeles County Flood Control District, this too may make a significant impact on the responsibilities of this tentative Los Angeles County NPDES MS4 permit. Therefore, the review period should not end until such time as the Court has rendered its opinion.

We hope you understand our concerns and that the Permittees be given additional time to adequately review and respond to the tentative Los Angeles County NPDES MS4 permit. This simply cannot be accomplished within the 45-day window. As such, the City of Vernon respectfully requests at minimum a 180-day time extension to review and comment on the aforementioned permit. Additionally, we request that a revised tentative permit be released with a reasonable comment period so that Permittees have the opportunity to review any changes made to the permit and have an opportunity to provide comments prior to the adoption hearing.

Sincerely,

Samuel Kevin Wilson, P.E. Director of Community Services & Water

SKW/LG/jt/ca

c:

Samuel Unger, LARWCB Executive Officer Renee A. Purdy, Regional Programs Section Chief Ivar Ridgeway, Stormwater Permitting Section Chief Mark Whitworth, City Administrator Vernon City Council LARWQC Board Members

Leonard Grossberg, MPA, R.E.H.S Interim Director/Health Officer Health & Environmental Control Department



City of Hermosa Beach

Civic Center, 1315 Valley Drive, Hermosa Beach, California 90254-3885

July 5, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

Honorable Chairperson Mehranian:

### SUBJECT: Comment Period for Draft NPDES Permit for LA County MS4 Discharges

The City of Hermosa Beach received the June 6, 2012 Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. We strongly urge the Board to extend the comment period on this permit as requested in the letter sent by the LA Permit Group. The LA Permit Group has been working proactively and diligently through twice monthly general meetings as well as additional subcommittee meetings to promote constructive collaboration and problem-solving between the Permittees and the Los Angeles Regional Water Quality Control Board (LARWQCB) toward development of a new NPDES Permit that is capable of integrating the protection of water quality with other watershed objectives in a cost-effective and science-based manner to focus limited municipal resources on implementation of water quality protection activities that are efficient, effective and sustainable.

This draft permit represents a paradigm shift in the approach to permitting of municipal stormwater, yet our staff has been given a scant 45 days to review and understand the provisions and prepare written comments. The draft permit is over 500 pages long incorporating provisions for a host of new TMDLs, restructuring of the permit centered on a Watershed Management Approach, extensive new requirements for water quality monitoring, with a myriad of new provisions throughout the permit including significant new administrative requirements. Our staff must have more time to fully digest the permit provisions and the 151-page fact sheet laying out the basis for these provisions. We need this time to provide cogent comments for your staffs' consideration in order to create a workable and implementable permit that achieves our mutual objectives of protecting and improving the quality of receiving waters in the Santa Monica Bay.

Maria Mehranian, Chairperson California Regional Water Quality Control Board July 5, 2012 Page Two

The City of Hermosa Beach is committed to protecting and improving the water quality of the Santa Monica Bay and has taken the opportunity to utilize Federal ARRA funding through the Clean Water State Revolving Fund to implement two award winning water quality projects for the benefit of water quality in the Santa Monica Bay. However it is crucial in this time of fiscal austerity that we have time to assess the organizational and budget impacts of these new permit provisions to ensure that our scarce public funds are utilized in the most effective manner to achieve water quality objectives.

It would be a mistake to rush this important permit through the approval process without providing sufficient opportunity for review and comment and to work with your staff to improve the permit; your decision on this matter will not be fully informed unless sufficient time is allocated for that process. The City of Hermosa Beach respectfully requests that the Regional Board lengthen the review period for this draft permit and provide a more reasonable schedule for permit development as requested by the LA Permit Group prior to an adoption hearing, allowing at least 6 months or 180 working days for municipal staff to work with Regional Board staff through the permit development process.

Sincerely,

Telila

John Jalili Interim City Manager

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember Irma Munoz, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer

**RB-AR4508** 



# TORRANCE

# OFFICE OF THE CITY MANAGER

LeRoy J. Jackson City Manager

July 5, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, California 90013

Honorable Chairperson Mehranian:

### SUBJECT: Request for extended Comment Period for Draft NPDES Permit for MS4 Discharges

The City of Torrance is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements, and extensive new requirements for new water quality monitoring.

It is the City's belief that the Regional Board desires a review process that is open and transparent; however, the Board has only allowed participating cities 45 days to read and learn a 500-page permit, meet with affected divisions for input, compare it to the last permit, evaluate the resources that will be required to comply, determine the fiscal and organizational impacts on City services, and present that information to our governing body, then prepare written comments to follow-up with the Regional Board.

In order to adequately respond to the request for comment, permittee (City) staff should be given sufficient time to vet this permit within our agency and with our elected officials, and adequate time to negotiate with Regional Board staff issues of the permit compliance. Attempting to rush this landmark regulation through the approval process is of concern, as it is in everyone's best interest to keep the permitting process as open and transparent as possible. It is our understanding that other Regional Boards have had a year or two to completely vet a new NPDES Permit for MS4 Discharges.

Maria Mehranian, Chairperson California Regional Water Quality Control Board July 5, 2012 Page 2 of 2

The City of Torrance respectfully requests six months or **180 working days** for the opportunity to review and work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on unresolved issues.

Please contact Ms. Fran Fulton, Senior Management Associate with the City Manager's Office, at (310) 618-2875 or <u>FFulton@TorranceCA.gov</u> for further discussion on this matter.

Sincerely,

LeRoy J Jackson City Manager

JD/FF/PS/LJJ/dle

cc: Charles Stringer, Vice Chairperson Francine Diamond, Board Member Mary Ann Lutz, Board Member Madelyn Glickfield, Board Member Maria Camacho, Board Member Irma Camacho, Board Member Lawrence Yee, Board Member Samuel Unger, Executive Officer Robert Beste, Public Works Director Heather Maloney, Chairperson LA Permit Group



# City of Hidden Hills

6165 Spring Valley Road • Hidden Hills, California 91302 (818) 888-9281 • Fax (818) 719-0083

July 6, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, California 90013

### SUBJECT: Comment Period for Draft National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer System (MS4) Discharges within Los Angeles County

Honorable Chairperson Mehranian:

Please accept this letter as a request from the City of Hidden Hills (City) for the California Regional Water Quality Control Board (Regional Board) to provide sufficient time for review of the draft National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer System (MS4) Discharges within Los Angeles County (Permit).

The City is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit, and the draft Permit. This draft Permit is over five-hundred (500) pages and incorporates provisions for thirty-three (33) TMDLs and implementation requirements, new low impact development requirements, and extensive new requirements for new water quality monitoring; however, the permittees have been given only forty-five (45) days to provide written comments.

While the City understands a new Permit is long overdue in Los Angeles County, we are concerned by the very expedited review and approval process for this landmark regulation. We believe it is in everyone's best interest to keep the permitting process as open and transparent as possible. The City has committed to a process that would cooperatively develop the next Permit. We have made every effort to stay engaged with Regional Board Staff in the process and have proactively sought involvement in all aspects of the Permit development. The City is appreciative of the efforts the Board and Staff have taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative Permit on June 7, 2012, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the Tentative Permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the Permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only forty-five (45) days to comment makes this impossible. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page Permit;
- Study the 500 page Permit to understand how the provisions work together;
- Compare it to the last Permit;
- Evaluate the resource needs to comply with the Permit;

Maria Mehranian, Chairperson July 6, 2012 Page 2

- Determine the fiscal and organizational impacts on City services, which requires coordination with several City departments;
- Prepare legal review and comments;
- Present information to and gather feedback from the City Council. Staff needs time to conduct a thorough review of the items listed above, prior to presenting them to the City Council; and,
- Prepare written comments.

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The <u>45-day comment period</u> <u>does not allow time for permittees to fully discuss the Permit</u> in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary, as many of the Permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale.

Lastly, for this process to be clearly open and transparent, City staff should be given sufficient time to vet this Permit with our elected officials, and then be given time to discuss and negotiate issues with Regional Board Staff prior to the Tentative Draft comments due date.

The City of Hidden Hills respectfully requests that the comment period be extended by one-hundred and eighty (**180**) working days for permittees to work with Regional Board Staff to draft a Permit that has a reasonable chance for compliance, and to prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or need additional information, please contact Kimberly Colbert, the City's Environmental Coordinator, at (310) 257-2004.

Sincerely,

#### **CITY OF HIDDEN HILLS**

Cheine L. Paglie

Cherie L. Paglia City Manager

CLP/kc

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember Irma Munoz, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Senator Bob Huff

# **RB-AR4512**

PEGGY LEMONS Mayor

GENE DANIELS Vice Moyor

TOM HANSEN

DARYL HOFMEYER Gouncilmember

DIANE J. MARTINEZ Councilmember



July 6, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

# Re: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review the draft NPDES Permit for MS4 Discharges needed to make this process open and transparent.

The City of Paramount is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however our permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the City of Paramount has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The City of Paramount is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,

- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,
- Present information to and gather feedback from municipal governing body (the process
  of scheduling an item for a City Council Agenda requires at least 30-60 days in most
  cities). This does not allow staff time to conduct the following items listed above prior to
  presenting to their governing bodies, and then
- Prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, City staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of Paramount respectfully requests for the comment period to be extended by 180 working days for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at 562-220-2020.

CITY OF PARAMOUNT

Christopher S. Cash Public Works Director

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember

Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer City Council CURTIS W. MORRIS, Mayor EMMETT BADAR, Mayor Pro Tem DENIS BERTONE JEFF TEMPLEMAN JOHN EBINER

City Manager _____ BLAINE M. MICHAELIS

Assistant City Manager / Treasurer KENNETH J. DURAN

City Attorney J. KENNETH BROWN

July 6, 2012



RB-AR451

Assistant City Manager of Community Development LAWRENCE STEVENS

Director of Public Works KRISHNA PATEL

Director of Development Services DAN COLEMAN

Director of Parks and Recreation THERESA BRUNS

City Clerk INA RIOS

VIA U.S.MAIL

Maria Mehranian, Chairperson California Regional Water Quality Control Board, Los Angeles 320 W. 4th Street, Suite 200

Re: Comments on Tentative County of Los Angeles Municipal Separate Storm Sewer System (MS4) Permit (NPDES No. CAS00400, Order No. R4-2012-XXXX)

Honorable Chairperson Mehranian:

Los Angeles, California 90013

Thank you for the opportunity to provide comments on the tentative County of Los Angeles Municipal Separate Storm Sewer System Permit (hereinafter referred to as the "LA MS4 Permit"). The City of San Dimas ("City") is a Permittee of the LA MS4 Permit and is located in the San Gabriel River Watershed. As a Permittee, the City would like to request the following:

Extension of the proposed Permit adoption date and

Timeline extension as outlined in Part VI.D.1.b.

Extension of the Proposed Permit Adoption Date

The proposed LA MS4 Permit adoption date of September 6, 2012 should be extended at least six (6) months (180 days) to provide adequate time for thorough review and necessary coordination, As whatever form the final permit is adopted, it will likely result in costly compliance with TMDLs and other requirements. For this reason we request an extension to allow adequate time to gauge and comprehend the budgetary impact to our budget. In addition, the LA MS4 Permit adoption schedule should parallel the adoption schedules provided to cities in the neighboring Counties of Orange and Ventura, as well as in San Diego County. Regional Boards for the aforementioned counties released and adopted MS4 Permits as follows:

- San Diego Regional Board released tentative Order No. R9-2012-0011 on April 9, 2012 and has indicated that they will allow permittees at least one (1) year to negotiate and prepare for the upcoming permit requirements.
- Santa Ana Regional Board posted Tentative Order No. R8-2008-0030 on November 10, 2008. Following four (4) draft Permits the final MS4 Permit was adopted on May 22, 2009. (6 months)

245 EAST BONITA AVENUE • SAN DIMAS • CALIFORNIA 91773-3002 • [909] 394-6200 • FAX [909] 394-6209

Comments on Tentative County of Los Angeles Municipal Separate Storm Sewer System (MS4) Permit (NPDES No. CAS00400, Order No.. R4-2012-XXXX)

July 6, 2012

Page 2

**RB-AR4515** 

 Los Angeles Regional Board – released the draft Ventura County MS4 Permit on April 29, 2008. This draft later became Order R4-2009-0057 and was adopted on May 7, 2009. (one (1) year)

#### Timeline Extension As Outlined in Part VI.D.1.b.

The timeline for LA MS4 Permit implementation in Part VI.D.1.b. should be extended from thirty (30) days to a <u>minimum of 120 days</u>. This extension will allow adequate time to develop ordinances, modify municipal codes, legal protocols for public hearings, and storm water programs (not otherwise given a compliance date) to make them consistent with the proposed LA MS4 Permit.

The City also requests that the LA MS4 Permit language mirror language in the tentative Caltrans Municipal Separate Storm Sewer System (MS4) Permit revised April 27, 2012. Language that

- Provides for an iterative process (trial and error process in meeting a TMDL);
- Assures Permittee compliance with the LA MS4 Permit and waste load allocations as long as BMPs are implemented;
- Determines compliance at the outfall and <u>not</u> the receiving water through BMP WQBELs rather than strict numeric WQBELs; and
- Relieves Permittees of having to comply with wet weather waste load allocations via Ambient monitoring that satisfy the receiving water monitoring requirement, to be conducted by the Regional Board using the SWAMP surcharge on the annual MS4 permit fee.

Again, thank you for the opportunity to provide comments on the tentative LA MS4 Permit. Should you have any questions or need additional information, please contact me at your convenience at (909) 394-6245 or via email at kpatel@ci.san-dimas.ca.us.

Sincerely,

CITY OF SAN DIMAS

Krishna Patel **Director of Public Works** 

cc: Charles Stringer, Vice Chairperson Francine Diamond, Board Member Mary Ann Lutz, Board Member Madelyn Glickfield, Board Member Maria Camacho, Board Member Irma Camacho, Board Member Lawrence Vee, Board Member Samuel Unger, Executive Officer Ivar Ridgeway, Stormwater Permitting (MS4) Blaine Michaelis, City Manager, City of San Dimas Latoya Cyrus, Environmental Services Coordinator, City of San Dimas



# CITY OF INGLEWOOD

Public Works Department



HARRY FRISBY, JR. Acting Public Works Director

July 10, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th Street., Suite 200 Los Angeles, CA 90013

# SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request that the Regional Board provide sufficient time for reviewing the draft NPDES Permit for MS4 Discharges and the need to make this process open and transparent.

The City of Inglewood is in receipt of the Notice of Opportunity for Public Comment and the Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. The draft permit is over 500 pages long and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring; however, permittees have only been given 45 days to provide written comments.

Providing permittees only 45 days to comment makes it nearly impossible to develop and provide relevant and meaningful comments. We feel that it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit and coordinate and prepare comments.

The City of Inglewood respectfully requests for the comment period to be extended by 180 working days. Additionally, we request that a revised Tentative Permit be released with a 45- day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

The City of Inglewood is a member of and in support of the LA Permit Group. If there are any additional questions, please feel free to contact Lauren Amimoto at (310) 412-5192.

Sincerely. Harry/Frisby, Jr.

Acting Public Works Director

One W Manchester Boulevard • Inglewood, CA • 90301 • Phone (310) 412-5333 • Fax (310) 412-5552 • www.cityofinglewood.org



LINDA C. LOWRY City Manager

July 10, 2012

Office of the City Manager



Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

# SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review of the draft NPDES Permit for MS4 Discharges needed to make this process **open and transparent**.

The City of Pomona is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This Draft Permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements, and extensive new requirements for new water quality monitoring. However, the Los Angeles County Permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. Through this entire draft development, the City of Pomona has committed to a process that would cooperatively develop the next MS4 Permit. City staff has made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The City of Pomona is appreciative of the efforts the Regional Board staff has taken to review certain aspects of the Permit with Permittees in workshops. However, upon release of the Draft Tentative Los Angeles County MS4 Permit, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that staff has not yet seen throughout this process. Seeing the Permit in its entirety, and having the opportunity to understand how each of the sections and programs work together, is imperative in order for all Permittees to fully understand the Permit provisions and to prepare comments.

City of Pomona staff believes the Regional Board wants a review process that is collaborative; however, providing Permittees only 45 days to comment makes it impossible for this process to achieve that goal. In order to develop and provide relevant and meaningful comments, each Permittees must first:

- Read a 500 page permit;
- Study the 500 page permit to understand how the provisions work together;
- Compare it to the last permit;

Comment Period for Draft Tentative NPDES Permit for MS4 Discharges Page 2 of 2

- Evaluate the resource needs to comply with the permit;
- Determine the fiscal and organizational impacts on City services; this requires coordination with several City Departments;
- Time for City Attorney to review Draft Tentative Permit and provide comments;
- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies; and
- Prepare written comments to Regional Board by July 23, 2012

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft Tentative MS4 Permit. <u>The 45-day comment period does not allow time for Permittees to fully discuss the Permit amongst each other in order to adequately coordinate comments and responses</u>. This process is not only desired by Permittees, but also necessary as many of the Permit provisions are intended for Permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that Permittees (staff and elected officials) be allowed adequate time to fully understand the Permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, City staff should be given sufficient time to vet this Permit within our agency staff, and with our elected officials, and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of Pomona respectfully requests for the comment period to be extended by **180 working days** for Permittees to first try to work with Regional Board staff to draft a Permit that has a reasonable chance for compliance, and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative MS4 Permit be released with a 45-day comment period so that Permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, please contact Julie Carver, Environmental Programs Coordinator at (909) 620-3628.

Sincerely,

Inda Chourg Linda Lowry

City Manager

cc: Charles Stringer, Vice Chairperson Francine Diamond, Board Member Mary Ann Lutz, Board Member Madelyn Glickfield, Board Member Maria Camacho, Board Member Irma Camacho, Board Member Lawrence Yee, Board Member Samuel Unger, Executive Officer Senator Gloria Negrete McLeod



Office of the City Manager 1685 Main Street PO Box 2200 Santa Monica, California 90407-2200

July 10, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

#### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

The City of Santa Monica is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages long and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for water quality monitoring. Despite the comprehensiveness and complexity of this permit document, permittees have been given only 45 days to review and provide written comments. With this letter we respectfully request the Regional Board to extend the review and comment period to provide permittees sufficient time to evaluate the Draft Permit.

The City of Santa Monica is appreciative of the efforts the Board and Staff have taken to review certain aspects of the Permit with permittees in workshops; however, many of the Draft Permit provisions contain substantial changes from previous versions, or contain new sections that had not been previously seen by permittees. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is essential for permittees to fully understand the permit provisions and to prepare comments.

In order to develop and provide relevant and meaningful comments, each permittee must first:

- Read and evaluate the 500+ page permit in light of current and future compliance efforts, including policies, code requirements, BMPs, monitoring and enforcement
- · Evaluate the resource needs to comply with the permit moving forward
- · Determine the fiscal and organizational impacts on city services
- Complete legal review and draft comments
- Present information to and gather feedback from City Council (which requires at least 30-60 days in most cities)
- Prepare final written comments

Additionally, emphasis on coordination of comments among cities has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. This process is essential because many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments. However, the current 45-day comment period does not allow sufficient time for cities to adequately coordinate responses.

For the reasons noted above the City of Santa Monica respectfully requests the comment period be extended by **180 working days** to allow for a thorough review and comment on the Draft NPDES Permit prior to the Adoption Hearing. Thank you for your consideration of this request.

Sincerely,

Rod Gould City Manager

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer

City Council

Stephen A. Del Guercio, Mayor Laura Olhasse, Mayor Pro Tem Michael T, Davitt David A. Spence Donald R. Voss



July 11, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

#### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review the draft NPDES Permit for MS4 Discharges needed to make this process **open and transparent**.

The City of La Cañada Flintridge (City) is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however our permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the City has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The City is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- · Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,

Comment Period for Draft NPDES Permit for MS4 Discharges Page 2 of 2

- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and then
- prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The <u>45-day comment period does not allow time for permittees to fully discuss the permit amongst each other</u> in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, permittee (City) staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (818) 790-8880.

Sincerely,

Eablah

Stephen A. Del Guercio Mayor

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Senator Bob Huff City Council City Manager



# **City of Manhattan Beach**

1400 Highland Avenue, Manhattan Beach, CA 90266 Phone: (310) 802-5053 Fax: (310) 802-5301

July 11, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angles, CA 90013

Honorable Chairperson Mehranian:

# SUBJECT: Comment Period for Draft NPDES Permit for LA County MS4 Discharges

The City of Manhattan Beach received the June 6, 2012 Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for LA County MS4 Discharges. We believe it is crucial that the Board extend the comment period on this permit as requested in the letter sent by the LA Permit Group.

This draft permit represents a significant new approach to permitting of municipal stormwater, yet our staff has been given less than 45 days to review and understand the provisions and prepare written comments. This draft permit is over 500 pages long incorporating provisions for many new TMDLs, restructuring of the permit centered on a Watershed Management Approach, extensive new requirements for water quality monitoring, with significant new administrative provisions throughout the permit. Our staff needs sufficient time to fully understand the permit provisions and the 151-page fact sheet laying out the basis for these provisions. Without this time we cannot provide cogent comments for your staff's consideration to create a workable and implementable permit that achieves our mutual objectives of protecting and improving the quality of receiving waters in the Los Angeles Basin.

The City of Manhattan Beach is committed to protecting and improving the water quality of the Santa Monica Bay and to working with your staff to achieve that objective. However in this time of fiscal austerity we must be afforded the opportunity to assess the organizational and budget resources that will be required by these new permit provisions to ensure that our precious public funds are deployed in the most effective way to achieve water quality objectives.

We urge you not to rush this important permit through the approval process without providing sufficient opportunity for review and comment and for Permittee staff to work with Regional Board staff to improve the permit; your decision on this matter will not be well-taken unless sufficient time is allocated for that process. The City of Manhattan Beach respectfully requests that the Regional Board lengthen the review period for this draft permit and provide a reasonable schedule for permit development as requested by the LA Permit Group, allowing at least 6 months or 180 working days for municipal staff to work with Regional Board staff through the permit development process.

Sincerely,

ore

David N. Carmany City Manager

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Munoz, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer

MAYOR: BANCEA ARMENTA

MAYOR PRO TEM:

COUNCIL MEMBERS BILL ALARCON MANGARET CLARK STEVEN LY



City y Rosemead

8535 E. VALLEY BOULEVARD • P.O. BOX 399 ROSEMEAG, CALIFORNIA 91770 TELEPHONE (626) 569-2100 FAX (626) 307-9218

July 11, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

# SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request that the Regional Board allow additional time for review of the draft NPDES Permit by MS4 dischargers prior to adoption in order for cities to be able to make informed and meaningful comments.

The City of Rosemead, a member agency of the LA Permit Group, is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however we have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the LA Permit Group has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The LA Permit Group is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the tentative draft, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be such. In order to develop and provide relevant and meaningful comments, Cities like ourselves must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,
- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and
- Prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, City staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of Rosemead, on behalf of the LA Permit Group, respectfully requests for the comment period to be extended by 180 working days. This extension will provide the opportunity for permittees to try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on unresolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or need additional information, I can be reached at (626) 569-2100 or jallred@cityofrosemead.org.

Sincerely,

**Čity Manager** 



July 11, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request that the Regional Board provide sufficient time for review the draft NPDES Permit for MS4 Discharges needed to make this process open and transparent.

The City of San Gabriel is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however our permittees have been given a mere 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in Los Angeles County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the City of San Gabriel has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The City of San Gabriel is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittee must: read the 502-page permit and associated appendices; study the permit to understand how the provisions work together; compare it to the last permit; evaluate the fiscal and staffing resource needs to comply with the permit; determine the associated impacts on city services; prepare legal review and comments; present information to city management and elected officials; and then, finally, prepare written comments.

Letter to Chairperson Mehranian July 10, 2012 Page 2 of 2

Emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be truly open and transparent, permittee staff should be allowed sufficient time to review this permit with other internal staff (e.g., city management and affected departments such as planning, code enforcement, fire, and water) as well as with our elected officials and be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of San Gabriel respectfully requests that the comment period be extended by 180 working days to allow permittees time to work with Regional Board staff to reach agreement on numerous critical issues and then prepare written comments on still unresolved issues that may remain. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to review the changes and provide any final comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (626) 308-2806 ext. 4631 or dgrilley@sgch.org.

Sincerely, COMMUNITY DEVELOPMENT

Daren T. Grilley, PE

City Engineer

*copy:* Kevin Sawkins, Mayor Steve Preston, City Manager Jennifer Davis, Community Development Director Charles Stringer, Board Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Board member Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Carol Liu Senator Ed Hernandez



# CITY OF COVINA

125 East College Street • Covina, California 91723-2199

Public Works Department **Development Services Division** Environmental Services Section (626) 384-5480 • FAX (626) 384-5479

July 12, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

## SUBJECT: REQUEST FOR EXTENSION OF THE LOS ANGELES MS4 PERMIT COMMENT PERIOD BY 180 WORKING DAYS

Honorable Chairperson Mehranian:

The City of Covina respectfully requests that the Regional Board provide sufficient time for the City and other stakeholders to review the draft NPDES Permit for MS4 Discharges by extending the comment period by 180 working days. This additional time is needed to ensure that the permit development process is open and transparent. The current timeline rushes the process and does not provide sufficient opportunity for the regulated cities to understand, analyze and comment on the myriad of provisions and impacts of the proposed permit.

The City of Covina is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit that was made available on June 6, 2012. The comment period that closes at noon on July 23, 2012, provides cities a mere 45 calendar days to review the Draft Permit, which is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, as part of the LA Permit Group, the City of Covina has committed to a process that would cooperatively develop the next MS4 Permit. The City of Covina is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the

Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,
- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and then
- prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, permittee (City) staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of Covina respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

Finally, please replace the City of Covina's Facility Contact name listed in the Draft Permit with my name, Vivian Castro, Environmental Services Manager. The other contact information listed for the City, including my email, is correct. If you have any questions or request additional information, I may be reached at (626) 384-5480.

Sincerely,

Linian Castro

Vivian Castro Environmental Services Manager

Charles Stringer, Vice Chairperson cc: Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Assembly Member Roger Hernandez Covina City Council Members Daryl Parrish, City Manager Marco Martinez, City Attorney Steve Henley, Director of Public Works Kalieh Honish, Deputy Director of Public Works



July 12, 2012

Ms. Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

## SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for permittee review of the draft NPDES Permit for MS4 Discharges.

The City of Lakewood is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however the city has been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. The City of Lakewood is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative Permit, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for the city to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, city staff must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,



Comment Period for Draft NPDES Permit for MS4 Discharges Page 2 of 2

- Present information to and gather feedback from our City Council (the process of scheduling an item for a City Council Agenda requires at least 30 days). This does not allow staff time to conduct the following items listed above prior to presenting to our Council, and then
- Prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The <u>45-day comment</u> period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, city staff should be given sufficient time to vet this permit within our executive management staff and with our elected officials prior to the Tentative Draft comments due date.

The City of Lakewood respectfully requests for the comment period to be extended by **180 working days** for permittees to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (562) 866-9771 ext. 2500.

Sincerely,

Dialmu Rapp

Lisa Ann Rapp Director of Public Works City of Lakewood

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Alan Lowenthal Assembly Member Warren Furutani Assembly Member Tony Mendoza





Office of the City Manager

415 Diamond Street, P.O. Box 270 Redondo Beach, California 90277-0270 www.redondo.org

tel 310 372-1171 fax 310 379-9268

July 12, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

Subject: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for reviewing the draft MS4 NPDES Permit to insure the process open and transparent and so that our City leaders can fully understand to true impact of these significant new regulations.

The City of Redondo Beach is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft MS4 NPDES Permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new Low Impact Development requirements and extensive new requirements for new water quality monitoring, however our staff have been given only 45 days to provide written comments.

We believe the Regional Board wants a review process that is open and transparent, however providing our staff 45 days to read and learn a 500 page permit, meet with effected divisions for input, compare it to the last permit, evaluate the resources that will be required to comply with the permit, determine the fiscal and organizational impacts on City services and present that information to our City Council and then prepare written comments makes it impossible for this process to be open, transparent and fully understood.

For this process to be clearly open and transparent then City staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to negotiate with Regional Board staff issues that would make the permit compliance impossible. We do not understand why the Regional Board would want to rush this landmark regulation through the approval process if it is in everyone's best interest to keep the permitting process as open and transparent as possible. I understand that other Regional Boards have used a year or two to completely vet a new MS4 NPDES Permit. The City of Redondo Beach respectfully request 6 months or **180 days** for our staff to first try to work with Regional Board staff

Comment Period for Draft NPDES Permit Page 2

July 12, 2012

to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues.

Sincerely,

Bill Workman City Manager

Cc: Charles Stringer, Vice Chairperson; Francine Diamond, Boardmember; Mary Ann Lutz, Boardmember; Madelyn Glickfield, Boardmember Maria Camacho, Board member; Irma Camacho, Boardmember; Lawrence Yee, Boardmember Samuel Unger, Executive Officer

**RB-AR4537** 



City of Rolling Hills

INDORPORATED UNIVARY 24, 1957

NO. 2 PORTUGUESE BEND ROAD ROLLING HILLS, CALIF. 90274 (310) 377-1521 FAX: (310) 377-7288

JAMES BLACK, M.D. Mayor

FRANK E. HILL Mayor Pro Tem

THOMAS F. HEINSHEIMER Councilmember

B. ALLEN LAY Councilmember GODFREY PERNELL, D.D.S. Councilmember

July 13, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angles, CA 90013

SUBJECT: Comment Period for Draft NPDES Permit for LA County MS4 Discharges

Honorable Chairperson Mehranian:

The City of Rolling Hills received the June 6, 2012 Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. We strongly urge the Board to extend the comment period on this permit.

This draft permit represents a significant change in the approach to permitting of municipal stormwater, yet our staff has been given only 45 days to review and understand the provisions and to prepare written comments. This draft permit is over 500 pages long incorporating provisions for 32 new TMDLs, restructuring of the permit centered on a Watershed Management Approach, extensive new requirements for water quality monitoring, with a myriad of new provisions throughout the permit including significant new administrative requirements.

Rolling Hills, as a municipality and in its geography, is unique. The City is by design of its founders and the General Plan, a low density, low impact, rural residential community with primary drainage conveyed via natural canyons. As a gated community of approximately 3 square miles consisting of numerous steep canyons, surrounded 360-degrees by other municipalities, with a population of approximately 1,800, and 684 homes, there are no industrial or commercial land uses of any type within the City. With lots ranging in size from a minimum of one-acre to as much as 17-acres, most all the land is also pervious allowing for the natural infiltration of water. Roads are private, i.e., not part of a public right-of-way, and are not equipped with curb-and-gutter, and so are not conveyances for trash or pollutants. Dry weather flows and significant rainfall events are infiltrated within the natural, largely undisturbed and vegetated soft-bottom canyons which are the primary drainage system; there is no continuous improved storm drain system throughout the City. Source control is the primary means

Mehranian July 11, 2012 Re: Comment Period for Draft NPDES Permit for LA County MS4 Discharges Page 2

available to the City for maintaining and improving water quality since structural control/treatment devices are not technically feasible or environmentally appropriate in natural canyons.

Our staff needs more time to fully digest the permit provisions and how they apply to our very unique City. We need this time to provide cogent comments for your staffs' consideration in order to create a more workable and implementable permit that achieves our mutual objectives of protecting and improving the quality of receiving waters in the Los Angeles Basin. It is also crucial in this time of fiscal austerity that we have time to assess the fiscal and organizational impacts of these new provisions and to present that information to our governing body so that this regulatory process is open and transparent. In addition, we are concerned that the hearing dates to consider this permit conflict with the League of California Cities annual conference which is to be held in San Diego September 5-7; this conflict would make it difficult for elected officials to participate fully in the hearing.

It would be a mistake to rush this important permit through the approval process without providing sufficient opportunity for review comment and to work with your staff to improve the permit; your decision on this matter will not be fully informed unless sufficient time is allocated for the process. The City of Rolling Hills respectfully requests that the Regional Board lengthen the review period for this draft permit and provide a more reasonable schedule for permit development prior to an adoption hearing, allowing at least 6 months or 180 working days for municipal staff to work with Regional Board staff through the permit development process, and to defer the hearing so that elected officials are able to be present and provide testimony.

Respectfully, James Black, M.D.

James Black, M.I. Mayor

JB:hl 07-13-12TimeExtensionNPDESPermitM54.docx

c: Rolling Hills City Council Charles Stringer, Vice Chairperson Francine Diamond, Board Member Mary Ann Lutz, Board Member Madelyn Glickfield, Board Member Maria Camacho, Board Member Irma Munoz, Board Member Lawrence Yee, Board Member Samuel Unger, Executive Officer Anton Dahlerbruch, City Manager Michael Jenkins, City Attorney

From:Kirsten James <kjames@healthebay.org>To:Samuel Unger <sunger@waterboards.ca.gov>CC:Renee Purdy <rpurdy@waterboards.ca.gov>, Ivar Ridgeway<iridgeway@waterboards.ca.gov>, Deborah Smith<Dsmith@waterboards.ca.gov>, Liz Crosson <liz@smbaykeeper.org>, "Garrison, Noah" <ngarrison@nrdc.org>Date:7/13/2012 10:25 AMSubject:MS4 timing

Dear Sam,

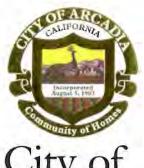
During the July 9, 2012 stakeholder meeting and the July 12, 2012 Regional Board hearing, several stakeholders requested an extension of the comment period on the Draft Los Angeles County Municipal Separate Storm Sewer System Permit, which is currently set for July 23, 2012. Appropriately, Regional Board staff responded that the deadline would stand. Heal the Bay, NRDC and Los Angeles Waterkeeper concur that the comment deadline and hearing dates (scheduled for September 6 and 7) should remain unchanged. Regional Board staff has held numerous workshops, released working draft documents of key sections of the permit and met with stakeholders on multiple occasions. Thus, we believe a 45 day comment period is sufficient to review and comment on the Draft Permit. Given that the Permit is more than five years overdue for renewal, it is important that the updated Permit is adopted as soon as possible. Our organizations urge the Board not to delay these proceedings further.

Sincerely,

Kirsten James, Heal the Bay

Liz Crosson, Los Angeles Waterkeeper

Noah Garrison, NRDC



July 16, 2012

City of Arcadia

Dominic Lazzaretto City Manager Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review of the draft NPDES Permit for MS4 Discharges. We believe the extended time is needed to make this process **open and transparent**.

The City of Arcadia is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft MS4 NPDES Permit. This Draft Permit is over 500 pages, incorporates provisions for 33 TMDLs, and requires extensive new and additional requirements including low impact developments and water quality monitoring. Yet, the affected permittees are given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in Los Angeles County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the City has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development.

The City of Arcadia is appreciative of the efforts made by the Board and Staff to review certain aspects of the Permit with permittees in various workshops. However, upon release of the Draft Permit, many of the Permit provisions contained substantial changes from previous versions or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first.

- Read a 500 page Permit,
- Study the 500 page Permit to understand how the provisions work together,
- Compare it to the last Permit,

240 West Huntington Drive Post Office Box 60021 Arcadia, CA 91066-6021 (626) 574-5401 (626) 446-5729 Fax dlazzaretto@ci.arcadia.ca.us www.ci.arcadia.ca.us

- Evaluate the resource needs to comply with the Permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,
- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and then prepare written comments

The Regional Board has placed a greater emphasis on coordination by permittees to work collaboratively to implement many of the provisions of the Permit on watershed and sub-watershed levels. In order to fully understand how these provisions will work, it is essential that permittees (staff and elected officials) be allowed adequate time to fully understand the Permit, coordinate and prepare necessary comments. The 45-day comment period <u>does not</u> allow time for such discussions.

Furthermore, for this process to be clearly open and transparent, City staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Draft Permit comments due date of July 23, 2012.

The City of Arcadia respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, please contact Tom Tait, Public Works Services Director at (626) 305-1386 or Vanessa Hevener, Environmental Services Officer at (626) 305-5327.

Cordially,

Dominic Lazzaretto

City Manager

CC: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Senator Bob Huff





CITY OF GLENDORA CITY HALL

(626) 914-8200

116 East Foothill Blvd., Glendora, California 91741 www.ci.glendora.ca.us

July 16, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review of the draft NPDES Permit for MS4 Discharges needed to make this process **open and transparent**.

The City of Glendora is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring; however, our permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the City of Glendora has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The City of Glendora is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittee must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,

### PRIDE OF THE FOOTHILLS

- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,
- Present information to, and gather feedback from, the municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). The 45 day time period does not allow staff time to complete the items listed above prior to presenting to their governing bodies, and then
- prepare written comments

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The <u>45-day comment period does not allow time for permittees to fully discuss the permit amongst themselves</u> in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate, and prepare comments.

Furthermore, for this process to be clearly open and transparent, permittee (City) staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The City of Glendora respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (626) 914-8249 or spatton@ci.glendora.ca.us.

Sincerely,

1

Steve Patton Water Division Manager

cc: Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Senator Ed Hernandez Senator Bob Huff

# **CITY OF HAWTHORNE**



4455 West 126th Street • Hawthorne, California 90250-4482

Department of Public Works, Engineering Division Office: (310) 349-2980 / Fax: (310) 978-9862

July 16, 2012

Maria Mehranian, Chairperson Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013

Request to Extend Planned Hearing Date of the Tentative MS4 permit

Honorable Chairperson Mehranian:

The City of Hawthorne (City) requests that the Regional Board's September 6th-7th adoption hearing for the Los Angeles Countywide NPDES MS4 permit (permit) be extended for a period of 180 days. The LA Permit Group, of which the City is a participating member, has submitted a similar request for extension. This letter serves to stress the importance of this extension, which is necessary to address the following:

- 1. The tentative permit is over 500 pages, the contents of which are a significant departure from the current permit, yet the permit comment period is only 45 days. This is insufficient time to provide well-informed comments.
- The adoption hearing dates of September 6th and 7th conflict with a League of Cities conference that will be attended by many City elected officials. This will prevent their ability to provide comments at the hearing.
- 3. Previously, municipal stormwater permittees have presumed that permit languagein conjunction with Board Policy (WQ 99-05) established an iterative management approach as a basis for compliance. However, on July 13, 2011, the Ninth Circuit Court of Appeals in NRDC vs. County of Los Angeles / Los Angeles County Flood Control District found the defendants had caused or contributed to an exceedance of a water quality standard and therefore violated the Receiving Water Limitations, irrespective of the application of the iterative process. I the receiving waters limitations are proposed are not changed, all discharges to receiving waters will likely need to meet water quality standards to avoid being in violation of the permit. The City certainly recognizes the importance of attaining water quality standards; but at the same time, no one reasonably expects any permittee to immediately realize this goal at the moment of permit adoption. Additional time is needed by both the cities that will be affected by this permit and the Regional Board to consider the language of the proposed Statewide Cal-Trans permit and several other versions of alternative language being proposed by other statewide coalitions.

Therefore the City respectively requests a 180 day postponement for the adoption hearing of the MS4 permit. Thank you for your consideration of this request. Please contact me at 310-349-2980 if you have any questions.

Sincerely,

Ans

Arnold Shadbehr, P.E. Interim City Manager

Cc:

Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember, Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer



320 West Newmark Avenue 

Monterey Park

California
91754-2896
www.ci.monterey-park.ca.us



City Council Betty Tom Chu Mitchell Ing David T. Lau Teresa Real Sebastian Anthony Wong

City Clerk David Barron

City Treasurer Joseph Leon

July 16, 2012

Maria Mehranian, Chairperson Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013

Hearing Date of the Tentative MS4 permit Request for Extension

Honorable Chairperson Mehranian:

The City of Monterey Park has been working with Los Angeles Permit Group (LAPG) since late 2011. The City supports the LAPG's recent request for a 180 day extension of the adoption hearing for the next MS4 permit. The city is herein submitting a separate letter to reemphasize the importance of this extension to two primary reasons:

First, September 6th and 7th coincide with a long planned League of Cities conference that many of our elective representatives (City Council) will be attending. This scheduling conflict will likely prevent them from appearing at the Regional Board's hearing to provide comments.

Secondly, municipal stormwater permittees have long presumed that the permit's receiving waters limitation language in conjunction with Board Policy (WQ 99-05) established an iterative management approach as a basis for compliance. However, the 2011 Ninth Circuit Court of Appeals decision in NRDC vs. County of Los Angeles / Los Angeles County Flood Control District found the defendants had caused or contributed to an exceedance of a water quality standard and therefore violated the Receiving Water Limitations, irrespective of the application of the iterative process. If the receiving waters limitations as proposed are not changed, all discharges to receiving waters will likely need to meet water quality standards to avoid being in violation of the permit.

The City certainly recognizes the importance of attaining water quality standards; but at the same time, it is unreasonable to expect any permittee to immediately realize this goal at the moment of permit adoption. Additional time is needed by both the cities that will be affected by this permit and the Regional Board to consider the language of the proposed Statewide Cal-Trans permit and several

July 16, 2012

Page 2

other versions of alternative language being proposed by other statewide coalitions. Therefore the city of Monterey Park respectively requests a 180 day postponement for the adoption hearing of the MS4 permit. Thank you for your consideration of this request. Please contact Amy Ho at (626) 307-1383 if you have any questions.

Sincerely,

Elias Saykali

Director of Public Works

cc: Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember, Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Ivar Ridgeway, Regional Board LAMS42012@waterboards.ca.gov. CHERI KELLEY Mayor LUIGI VERNOLA Vice Mayor MICHAEL MENDEZ Councilmember MARCEL RODARTE Councilmember LEONARD SHRYOCK Councilmember MICHAEL J. EGAN City Manager



12700 NORWALK BLVD., P.O. BOX 1030, NORWALK, CA 90651-1030 * PHONE: 562/929-5700 * FACSIMILE: 562/929-5773 * WWW.NORWALKCA.GOV

July 16, 2012

Maria Mehranian, Chairperson Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013

### Re: Request to Extend Planned Hearing Date of the Tentative MS4 permit

Honorable Chairperson Mehranian:

The City of Norwalk recently received a copy of the Los Angeles Permit Group's request for a 180-day postponement of the next MS4 permit adoption hearing currently scheduled for September 6 and 7, 2012. Today, the City received a copy of the Regional Board's subsequent rejection of that request. The City of Norwalk has been reviewing the MS4 permit and herein asks the Regional Board to reconsider the Los Angeles Permit Group's original request.

- The Tentative MS4 permit is over 500 pages in length and highly technical. As with any complex document of this length, there are many items that need clarification, as well as several areas of inconsistencies. Forty-five (45) days is too short a time period to allow a thorough review and understanding of the permit.
- September 6th and 7th coincide with a long planned League of California Cities conference that many of our elected officials (City Council) will be attending. This scheduling conflict will likely prevent them from appearing at the Regional Board's hearing to provide comments.
- Previously, municipal stormwater permittees have presumed that permit language in conjunction with Board Policy (WQ 99-05) established, at least in part, an iterative approach as a basis for compliance. The recent Ninth Circuit Court of

Appeals in NRDC vs. County of Los Angeles / Los Angeles County Flood Control District found the defendants had caused or contributed to an exceedance of a water quality standard and therefore violated the Receiving Water Limitations, irrespective of the application of the iterative process. If the receiving waters limitations as proposed in the Tentative Permit are not changed, all discharges to receiving waters will likely need to meet water quality standards to avoid being in violation of the permit. Norwalk recognizes the importance of attaining water quality standards; but at the same time, permittees cannot reasonably be expected to immediately attain this goal at the moment of permit adoption. This is especially true for pollutants that neither have established TMDLs nor listed as causing impairments on the 303d list. Additional time is needed by both the cities that will be affected by this permit and the Regional Board to consider the language of the proposed Statewide Cal-Trans permit and several other versions of alternative language being proposed by other statewide groups.

Therefore the City of Norwalk respectively requests the Regional Board reconsider the Los Angeles Permit Group's request for a 180-day postponement for the adoption hearing of the MS4 permit. Thank you for your consideration of this request. Please contact Adriana Figueroa, Administrative Services Manager at (562) 929-5915, or Dan Garcia, City Engineer at (562) 929-5727 if you have any questions.

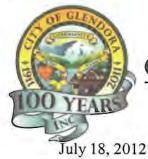
Sincerely

Michael J. Egan City Manager

cc: Norwalk City Council

Los Angeles Regional Water Quality Control Board: Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember, Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Ivar Ridgeway, Regional Board LAMS42012@waterboards.ca.gov





# CITY OF GLENDORA CITY HALL

(626) 914-8200



Los Angeles Regional Water Quality Control Board Mr. Samuel Unger, Executive Officer 320 West 4th Street, Suite 200 Los Angeles, CA 90013

Dear Mr. Unger,

The effects of the Los Angeles County MS4 permit are far too complicated to allow a comment period of 45 days from the release of the 1st complete draft to adoption.

The comments made in your July 13, 2012 letter to the L.A. Permit Group are correct that there have been multiple opportunities to discuss what should be in the new MS4 permit. However, providing 45 days to review the 1st draft of the permit is not sufficient. Reviewing a complete draft permit is far different than having conceptual discussions about draft piecemeal sections of an uncompleted permit.

The time period for review of the Ventura County MS4 permit from 1st draft to adoption spanned December 2006 to May 2009. The time period for review of the San Diego MS4 permit from 1st draft to adoption was 2007 to 2009. Los Angeles County has three times more population than of San Diego County and more than 10 times more than Ventura. This permit affects a huge number of residents yet is being given the least amount of time for review and comment by the more than 80 cities it affects. Cities who must work together to meet the requirements of the permit.

We request that you reconsider your decision not to extend the comment period for the Los Angeles County MS4 Permit for at least 6 months preferably one year which is in keeping with other draft permit reviews.

Sincerely,

A' ... Jerry L. Burke, P.E. Assistant Director of Public Works/City Engineer

Cc: David A. Davies, Director of Public Works File

\\Neo\public works\NPDES\Draft Permit 2012\MS4 request to extend review period.doc

## PRIDE OF THE FOOTHILLS

# **City of Diamond Bar**

21810 Copley Drive • Diamond Bar, CA 91765-4178

(909) 839-7000 • Fax (909) 861-3117 www.DiamondBarCA.gov

July 19, 2012

Maria Mehranian, Chairperson California Regional Water Quality Control Board Los Angeles Region 320 West 4th St., Suite 200 Los Angeles, CA 90013

#### SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

We appreciate the efforts of the Regional Board in working with the municipalities of Los Angeles County. The process leading up to the revised MS4 permit has been cooperative with representatives from the cities making efforts to address Regional Board issues and those of the environmental community in our comments and suggestions. Given the extent of the current draft MS4 permit, the City of Diamond Bar requests that the Regional Board provide sufficient time to review the draft NPDES Permit for MS4 Discharges.

Ling-Ling Chang Mayor

Jack Tanaka Mayor Pro Tem

Ron Everett Council Member

Carol Herrera Council Member

Steve Tye Council Member The City of Diamond Bar is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements, and extensive new requirements for water quality monitoring. However, the permittees have been given only 45 days to provide written comments.

Through this entire process, the City of Diamond Bar has committed to a process that would cooperatively develop the next MS4 Permit. Diamond Bar is a member of the LA Permit Group and has actively participated in the LA Permit Group meetings and negotiations. The LA Permit Group will be submitting a letter regarding comments on the Draft MS4 Permit and Diamond Bar wholly endorses the comments that are forthcoming. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the permit development. The City of Diamond Bar is appreciative of the efforts the Board and Staff has taken to review certain aspects of the permit with the permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments. Page 2 Comment Period for Draft NPDES Permit for MS4 Discharges July 19, 2012

The 45 day comment period does not provide adequate review time and makes it difficult for the permittees to provide relevant and meaningful comments. The review process is very time consuming as each permittee must review the 500 page permit, compare against the prior version, determine fiscal and organizational impacts on City resources, and incorporate legal review and input from governing bodies on what resources can be relied upon to comply.

Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also beneficial as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit to coordinate and prepare comments.

The City of Diamond Bar respectfully requests for the comment period to be extended by 180 working days for permittees to continue to work with Regional Board staff to develop a comprehensive permit while allowing adequate time for permittees to prepare written comments on un-resolved issues.

If you have any questions or request additional information, you may contact Mr. Rick Yee, Senior Civil Engineer, or me, at 909.839.7040.

Sincerely,

David G. Liu, P.E. Public Works Director/City Engineer

cc: James DeStefano, City Manager Mike Jenkins/Lauren Langer, City Attorney Charles Stringer, Vice Chairperson Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Board member Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer July 19, 2012



PUBLIC WORKS DEPARTMENT

Maria Mehranian, Chairperson Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013

#### Request to Extend Planned Hearing Date of the Tentative MS4 permit

Honorable Chairperson Mehranian:

The City of Rancho Palos Verdes recently received a copy of the Los Angles Permit Group's request for a 180 day postponement of the next MS4 permit's adoption hearing, currently scheduled for September 6th and 7th. Today, the city received a copy of the Regional Board's subsequent rejection of that request. The City of Rancho Palos Verdes has been reviewing the MS4 permit and herein asks the Regional Board to reconsider the Los Angeles Permit Group's original request, for the following reasons:

- The Tentative MS4 permit is over 500 pages in length and highly technical. As with any complex document of this length, there are many items that need clarification, there are several areas of inconsistencies and the expected typographical errors. Forty-five (45) days is too short a time period to allow a thorough review and understanding of the permit.
- September 6th and 7th coincide with a long planned League of Cities conference that many of our elected officials (City Councilmembers) will be attending. This scheduling conflict will likely prevent them from appearing at the Regional Board's hearing to provide comments.
- Previously, municipal stormwater permittees have presumed that permit language in conjunction with Board Policy (WQ 99-05) established, at least in part, an iterative approach as a basis for compliance. The recent Ninth Circuit Court of Appeals in NRDC vs. County of Los Angeles / Los Angeles County Flood Control District found the defendants had caused or contributed to an exceedance of a water quality standard and therefore violated the Receiving Water Limitations, irrespective of the application of the iterative process. If the receiving waters limitations as proposed in the Tentative Permit are not changed, all discharges to receiving waters will likely need to meet water quality standards to avoid being in violation of the permit. Rancho Palos Verdes recognizes the importance of attaining water quality standards; but at the same time, permittees cannot reasonably be expected to immediately attain this goal at the moment of permit

adoption. This is especially true for pollutants that neither have established TMDLs nor are listed as causing impairments on the 303d list. Additional time is needed by both the cities that will be affected by this permit and the Regional Board to consider the language of the proposed Statewide Cal-Trans permit and several other versions of alternative language being proposed by other statewide groups.

Therefore the City of Rancho Palos Verdes respectfully requests the Regional Board reconsider the Los Angeles Permit Group's request for a 180 day extension of the currently scheduled hearing for the adoption of the MS4 permit. Thank you for your consideration of our request. Please contact Andy Winje at 310-544-5249 if you have any questions.

Sincerely,

James B. Hendrickson

Interim Director of Public Works City of Rancho Palos Verdes

Cc:

Francine Diamond, Boardmember Mary Ann Lutz, Boardmember Madelyn Glickfield, Boardmember Maria Camacho, Boardmember, Irma Camacho, Boardmember Lawrence Yee, Boardmember Samuel Unger, Executive Officer Ivar Ridgeway, Regional Board LAMS42012@waterboards.ca.gov Carolyn Lehr, Rancho Palos Verdes City Manager

**RB-AR4555** 



# City of South Gate

8650 CALIFORNIA AVENUE • SOUTH GATE, CA 90280 • (323) 563-9503 FAX (323) 569-2678 • gtroxcil@sogate.org

GEORGE TROXCIL CITY MANAGER

July 19, 2012

Maria Mehranian, Chairperson Los Angeles Regional Water Quality Control Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013

#### Re: Request to Extend Planned Hearing Date of the Tentative MS4 permit

Honorable Chairperson Mehranian:

The City of South Gate is a participating member of the Los Angeles Permit group which has previously submitted a request for a 180 day extension of the adoption hearing for the next MS4 permit. The purpose of this separate letter is to emphasize the importance of this request. The primary reasons for this request are:

- 1. The Tentative MS4 permit is over 500 pages in length and 45 days is too short a time period to allow a thorough review and understanding of the permit.
- September 6th and 7th coincide with a long planned League of Cities conference that many of our elective representatives (City Council) will be attending. This scheduling conflict will likely prevent them from appearing at the Regional Board's hearing to provide comments.
- 3. The Receiving Waters Limitations Language of the Tentative Permit as currently written will likely expose cities to 3rd party litigation immediately upon adoption. This is an untenable situation for South Gate. Additional time is needed by both the cities that will be affected by this permit and the Regional Board to consider the language of the proposed Statewide Cal-Trans permit and several other versions of alternative language being proposed by other statewide coalitions.

Therefore, the City of South Gate respectively requests a 180 day postponement for the adoption hearing of the MS4 permit. Thank you for your consideration of this request. Please contact Director of Public Works Mohammad Mostahkami at (323) 563-9512, if you have any questions.

Sincerely,

eager inote George Troxcil

City Manager

cc: Francine Diamond, Boardmember Madelyn Glickfield, Boardmember Irma Camacho, Boardmember Samuel Unger, Executive Officer Mary Ann Lutz, Boardmember Maria Camacho, Boardmember, Lawrence Yee, Boardmember South Gate City Council Members





EDMUND G. BROWN JR GOVERNOR

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

#### Los Angeles Regional Water Quality Control Board

July 13, 2012

Cherie L. Paglia City Manager City of Hidden Hills 6165 Spring Valley Road, Hidden Hills, CA 91302

# RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Ms. Paglia:

The Regional Board is in receipt of the City of Hidden Hills' letter dated July 6, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the many opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

#### City of Hidden Hills

**RB-AR4557** 

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Chief Deputy EQ. Samuel Unger to

Executive Officer





EDMUND G. BROWN JR. OOVEBNOE

MATTHEW RODRIQUEZ ECRETARY FOR NVIBONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 13, 2012

Harry Frisby, Jr. Acting Public Works Director City of Inglewood One West Manchester Boulevard Inglewood, CA 90301

#### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR **TENTATIVE LOS ANGELES COUNTY MS4 PERMIT**

Dear Mr. Frisby:

The Regional Board is in receipt of the City of Inglewoods' letter dated July 6, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the many opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

MARIA MEHRANIAN, CHAIR | SAMUEL ÜNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely, Chief Deputy F.O. Samuel Unger Executive Officer





Los Angeles Regional Water Quality Control Board

July 13, 2012

LA Permit Group c/o Heather Maloney Senior Management Analyst City of Monrovia Department of Public Works Administration & Environmental Services 600 S. Mountain Ave, Monrovia, CA 91016

# RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear LA Permit Group:

The Regional Board is in receipt of the LA Permit Groups' letter dated July 2, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

July 13, 2012

**RB-AR4561** 

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. We feel that our meetings with the LA Permit Group Negotiating Committee have been productive and have led to greater understanding of each others' perspectives and concerns. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Depty 8.0. Samuel Und **Executive Officer** 





EDMUND G. BROWN JR.

MATTHEW RODRIQUEZ SECRETARY FOR ENVIRONMENTAL PROTECTION

#### Los Angeles Regional Water Quality Control Board

July 13, 2012

Linda Lowry City Manager City of Pomona City Hall 505 South Garey Avenue, Box 660 Pomona, CA 91769

### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Ms. Lowry:

The Regional Board is in receipt of the City of Pomonas' letter dated July 6, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the many opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

Maria Mehranian, chair | Samuel Unger, executive officer

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles



Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely, Chief Deputy E. O. Samuel Unger For Executive Officer







MATTHEW RODBIOUEZ

ECRETARY FOR NVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 13, 2012

Daren T. Grilley, P.E. City Engineer City of San Gabriel 425 South Mission Drive, San Gabriel, CA 91776

#### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR **TENTATIVE LOS ANGELES COUNTY MS4 PERMIT**

Dear Mr. Grilley:

The Regional Board is in receipt of the City of San Gabriels' letter dated July 11, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the many opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

July 13, 2012

**RB-AR4565** 

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely Chief Deputy E.G. Samuel Unger Executive Officer





EDMUND G. BROWN JR.

MATTHEW RODRIQUEZ CRETARY FOR

#### Los Angeles Regional Water Quality Control Board

July 13, 2012

Samuel Kevin Wilson, P.E. **Director of Community Services & Water** Leonard Grossberg, MPA, R.E.H.S. c/o Claudia Arellano City of Vernon **Community Services & Water Department** 4305 Santa Fe Ave, Vernon, CA 90058

#### **RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT**

Dear Mr. Wilson and Mr. Grossberg:

The Regional Board is in receipt of the City of Vernons' letter dated July 3, 2012, requesting a 180-working day extension to develop the permit with an additional comment period. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the many opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

MARIA MEHRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

. 320 West 4th St., Suite 200, Los Angeles, CA 90013 | www.waterboards.ca.gov/losangeles

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff will continue to consider all comments and are available to meet and confer on any permit provisions prior to the July 23, 2012 comment deadline.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

ef Deputy 8.0. Samuel Ung 10: Executive Officer





Los Angeles Regional Water Quality Control Board

July 26, 2012

Vivian Castro Environmental Services Manager City of Covina 125 East College Street, Covina, CA 91723-2199

### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Ms. Castro:

The Regional Board is in receipt of the City of Covina's letter dated July 12, 2012, requesting the Regional Board reconsider the request for a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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July 26, 2012

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Chief Deputy 20. Samuel Unger Executive Officer





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Los Angeles Regional Water Quality Control Board

July 26, 2012

John Jalili Interim City Manager City of Hermosa Beach Civic Center, 1315 Valley Drive, Hermosa Beach, CA 90254-3884

## RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Jalili:

The Regional Board is in receipt of the City of Hermosa Beach's letter dated July 5, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

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If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

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Samuel Unger Executive Officer



Martine Francis

Los Angeles Regional Water Quality Control Board

July 26, 2012

Elias Saykali Director of Public Works City of Monterey Park Municipal Services Center, 320 West Newmark Avenue, Monterey Park, CA 91754-2896

# RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Saykali:

The Regional Board is in receipt of the City of Monterey Park's letter dated July 16, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Deputy EO Samuel^VUnger

Executive Officer



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Los Angeles Regional Water Quality Control Board

July 26, 2012

Michael J. Egan City Manager City of Norwalk 12700 Norwalk Boulevard, P.O. Box 1030 Norwalk, CA 90651-1030

## RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Egan:

The Regional Board is in receipt of the City of Norwalk's letter dated July 16, 2012, requesting the Regional Board reconsider the request for a 180-working day extension to develop the permit and an additional 45-day comment on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

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Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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City of Norwalk

July 26, 2012

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Chief DeputyEO Samuel Unger Executive Officer





Los Angeles Regional Water Quality Control Board

July 26, 2012

Christopher S. Cash Public Works Director City of Paramount 16400 Colorado Avenue, Paramount, CA 90723-5012

# RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Cash:

The Regional Board is in receipt of the City of Paramount's letter dated July 16, 2012, requesting a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Deputy EU. Ch.

Samuel Unger -/2 Executive Officer





Los Angeles Regional Water Quality Control Board

July 26, 2012

James B. Hendrickson Interim Director of Public Works City of Rancho Palos Verdes 30940 Hawthorne Boulevard, Rancho Palos Verdes, CA 90275-5391

### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Hendrickson:

The Regional Board is in receipt of the City of Rancho Palos Verdes' letter dated July 19, 2012, requesting the Regional Board reconsider the request for a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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City of Rancho Palos Verdes

- 2 -

July 26, 2012

Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely, Chier Depty 20 Samuel Unger for Executive Officer





Los Angeles Regional Water Quality Control Board

July 26, 2012

Krishna Patel Director of Public Works City of San Dimas 245 East Bonita Avenue, San Dimas, CA 91773-3002

# RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Ms. Patel:

The Regional Board is in receipt of the City of San Dimas' letter dated July 6, 2012, requesting the Regional Board reconsider the request for a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Chief Deputy EO Samuel Unger

Executive Officer



An an an Anna an

Los Angeles Regional Water Quality Control Board

July 26, 2012

George Troxcil City Manager City of South Gate 8650 California Avenue, South Gate, CA 90280

### RESPONSE TO REQUEST FOR EXTENSION OF COMMENT PERIOD FOR TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Dear Mr. Troxcil:

The Regional Board is in receipt of the City of South Gate's letter dated July 19, 2012, requesting the Regional Board reconsider the request for a 180-working day extension to develop the permit and an additional 45-day comment period on a revised tentative permit. The Regional Board has provided an open and transparent process throughout the past 15 months, beginning in May 2011, realizing the importance of having Permittees closely involved in the Permit development process.

The Regional Board has provided myriad opportunities for Permittees to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011, with the LA Permit Group Negotiating Committee.

Additionally, Board staff distributed to Permittees five working proposals of the permit provisions, covering the principal sections of the permit. For each working proposal, Board staff provided Permittees with a three-week written comment period as well as the opportunity to discuss the working proposals with the Board at board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes.

Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting your request for an extension of the comment deadline.

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Board staff has made every effort to involve Permittees and address Permittees' concerns and comments during this process. Staff is available to meet and confer on any permit provisions prior to the Board hearing.

If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely

Chief Derty EO Samuel Unger

Executive Officer



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> MATTHEW HOSSINGER MICHIGARY FOR ENVIROPMENTAL FROM CONTROL

Los Angeles Regional Water Quality Control Board

July 30, 2012

### RESPONSE TO REQUESTS FOR EXTENSION OF REVIEW PROCESS AND COMMENT PERIOD FOR THE TENTATIVE LOS ANGELES COUNTY MS4 PERMIT

Los Angeles County MS4 Permittees and Interested Persons:

The Regional Board staff has received many letters requesting a 180-working day extension to develop the permit and an additional 45-day comment period to review a revised tentative permit. Beginning in May 2011 the Regional Board has worked diligently to provide an open and transparent permit development process, realizing the importance of having Permittees and other interested persons closely involved.

The Regional Board has provided myriad opportunities for Permittees and other interested persons to present issues and concerns to the Board and Board staff through three board workshops, five staff-level workshops, and one to two meetings per month since November 2011 with the LA Permit Group Negotiating Committee. In addition, Regional Board staff has met frequently with several other entities including the City of Los Angeles, Los Angeles County Flood Control District, NRDC, Los Angeles Waterkeeper, and Heal the Bay, throughout the permit development process to ensure all interested persons had opportunities to vet their concerns.

Furthermore, Regional Board staff distributed to Permittees and interested persons five working proposals of the permit provisions, covering the principal sections of the permit to facilitate the understanding of the permit on a section by section basis. For each working proposal, Board staff provided Permittees and interested parties with a three-week written comment period as well as the opportunity to discuss the working proposals with the Regional Board at Board workshops held on April 5, 2012 and May 3, 2012. The draft permit was revised to address many of the written and oral comments received on the working proposals. The tentative LA County MS4 Permit, which was released for public comment on June 6, 2012, reflects these changes. Regional Board staff has made every effort to involve Permittees and interested persons to address concerns and comments during this 15-month development process.

Regional Board members directed staff to adhere to a permit development schedule that would ensure that the permit would be considered by the Board at its regularly scheduled September Board meeting. In order to meet this directive, and in light of the significant number of opportunities for engagement and comment on the draft permit that have been provided over the past 15 months, I am not granting requests for an extension of the comment deadline.

MARIA MEHIGADIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

320 West 4th St., Sode 200, Los Angales, CA 90013 | www.waterboards.ca.gov/)osangales

LA County MS4 Permittees and Interested Persons

-2-

July 30, 2012

Regional Board staff will continue to be available to meet and confer on any permit provisions prior to the September board hearing. If you have any questions, please call Renee Purdy at (213) 576-6622 or Ivar Ridgeway at (213) 620-2150.

Sincerely,

Samuel Ungen

Samuel Unger Executive Officer

#### LYRIS MAILING

#### **RB-AR4586**

ST NAME: LA MS4 2012 JULLNAME_ DATE MAILED: DATEJOINED EMAILADDR 2/2/2011 12:04 ADRIEN236@VLPRODUCE.COM 6/22/2010 11:57 AEMiller@waterboards.ca.gov 3/27/2012 13:25 Berry.Ueoka@EverestConsultants.com 3/22/2012 15:22 BryantA@lwa.com 11/15/2010 7:46 CaliforniaWaterTechnologies@gmail.com 7/6/2009 13:38 City_manager@ci.glendora.ca.us 11/16/2011 7:58 DLiu@DiamondBarCA.Gov 11/8/2012 15:11 Dan.Askenaizer@WQTS.com 6/11/2011 22:09 Daniel.Lee@Arcadis-us.com 2/22/2010 18:03 Dave@Bubalo.com 5/2/2011 6:54 Debbie.Neev@gmail.com 7/6/2009 13:58 EKiepke@WILLDAN.com 7/6/2009 13:21 FredLatham@santafesprings.org 6/12/2012 11:32 Fresh@freshcreek.com 10/5/2010 11:14 Gerhardt.Hubner@ventura.org 3/22/2010 15:01 Hamid.Tadayon@lacity.org 12/21/2012 15:07 Hyginus.Mmeje@Lacity.org 12/12/2012 16:02 JWestfall@lacsd.org 7/6/2009 13:07 James.Destefano@ci.diamond-bar.ca.us 1/19/2010 11:06 Jeremy.Bock@Kiewit.com 3/7/2012 16:27 Jim@CuratingLA.com 7/6/2009 13:35 John.Beshay@westcovina.org 1/8/2013 15:53 John.capoccia@gmail.com 7/28/2011 16:10 Joyntventr@aol.com 8/29/2011 14:09 Julie_Carver@ci.pomona.ca.us 7/6/2009 13:53 Kaden.Young@culvercity.org 11/16/2011 8:45 LLanger@localgovlaw.com 4/5/2011 9:34 Leroy.Richards@msh.dmh.ca.gov 8/25/2010 13:32 Lynn@MLMENG.com 11/16/2011 8:39 NOENEGRETE@SANTAFESPRINGS.ORG 6/8/2010 15:11 Nels@stemmdevelopment.com 12/29/2011 11:05 Ppeuron@forestlawn.com 1/3/2013 17:47 RSorensen@calwater.com 11/16/2011 8:43 RYee@DiamondBarCA.Gov 10/22/2010 15:23 Ramon@calfran.net 2/1/2011 8:56 Renee.Purdy@waterboards.ca.gov 7/6/2009 13:51 Rhughes@WILLDAN.com 4/25/2011 15:19 Robert.Vega@lacity.org 7/6/2009 11:32 Sandra.Kelley@waterboards.ca.gov 7/6/2009 13:23 Shannon.Yauchzee@westcovina.org 7/6/2009 13:49 Skennedy@enfact.net 7/6/2009 13:55 TLANGE@santa-clarita.com 7/6/2009 11:29 Theresa.Rodgers@waterboards.ca.gov 11/7/2011 13:43 Tom.Anderson@bodycote.com 7/6/2012 10:16 WENDY.WANG@bbklaw.com 3/29/2012 10:34 aazimi@azimipearsallinc.com

ADRIEN F. MADDALENO Alan E. Miller Berry Ueoka Bryant Alvarado Carlos Aguilar **Chris Jeffers** David G. Liu Dan Askenaizer Daniel K. Lee Dave Sorem Deborah Neev E. Kiepke Frederick W. Latham wallytrnka Gerhardt Hubner Hamid Tadayon Hyginus Mmeje Josh Westfall James DeStefano Jeremy Bock Jim Gilbert John Beshay John Capoccia Jayne Staley Julie Carver Kaden Young Lauren Langer LeRoy Richards Lynn Kubasek Noe Negrete **Nels Stemm** Peter Peuron **Ronald Sorensen Rick Yee** Ramon Wagner Renee Purdy **Roxanne Hughes** Robert Vega Sandra Kelley Shannon Yauchzee Sheila Kennedy **Travis Lange** Theresa Rodgers

Wendy Wang Ali Azimi

3/2/2012 14:56 acallotdavis@rbf.com 2/16/2012 14:54 aclark@calwater.com 9/9/2010 15:25 acruz@ci.burbank.ca.us 7/6/2009 13:19 adahlerbruch@cityofrh.net 12/12/2011 10:54 adanortega@me.com 7/9/2009 10:07 aestrada@sogate.org 7/6/2009 13:47 afarassati@cityofcalabasas.com 7/6/2009 13:54 aharrington@ci.claremont.ca.us 7/28/2009 8:26 aibanezir@gmail.com 7/6/2009 13:46 ajensen@ci.walnut.ca.us 8/3/2009 8:54 alasso@dpw.lacounty.gov 3/7/2012 9:57 alex@acgeyer.com 11/16/2011 8:59 alexh@ci.commerce.ca.us 1/18/2010 9:55 alfonso.nunez@erm.com 9/10/2010 15:36 alfredo.magallanes@lacity.org 6/7/2011 14:18 alindgren@campbellfoundation.org 9/9/2009 12:40 allenv@contech-cpi.com 4/13/2011 15:25 alopez@llenviroinc.com 7/6/2009 13:58 amelia@hulsenv.com 7/6/2009 13:39 amho@montereypark.ca.gov 1/26/2010 12:53 and rew.t.arcuri@medtronic.com 8/27/2009 13:14 andy.niknafs@ladwp.com 11/16/2011 8:39 andyw@rpv.com 3/30/2012 10:48 ankitavyas@rbf.com 11/9/2011 9:30 anthony.hicke@rcslade.com 1/31/2011 12:11 anu.b.garg@boeing.com 7/6/2009 13:18 arigg@pvestates.org 5/6/2010 7:56 arne.anselm@ventura.org 7/6/2009 13:41 ashadbehr@cityofhawthorne.org 1/23/2013 8:41 asheldon@malibucity.org 10/31/2011 10:33 ashlid@lwa.com 12/1/2011 10:29 athomas@dpw.lacounty.gov 1/3/2013 7:48 atwater.richard@gmail.com 7/9/2009 9:57 avarela@lakewoodcity.org 8/12/2010 8:44 bakhavan@mwdh2o.com 12/22/2011 11:16 barbara.klos@urs.com 1/18/2011 13:37 bbax@lacsd.org 11/9/2011 10:17 bburgess6410@yahoo.com 10/15/2012 8:15 bdawadi@civiltec.com 7/1/2012 18:03 bdepoto@yahoo.com 12/20/2012 16:02 betsye@lwa.com 7/6/2009 13:19 bill.workman@redondo.org 7/6/2009 13:44 biniguez@bellflower.org 7/6/2009 13:38 binman@ci.sierra-madre.ca.us 7/8/2009 10:48 binman@cityofsierramadre.com 6/3/2010 12:43 blosey@rbf.com 7/6/2009 13:20 bmichaelis@ci.san-dimas.ca.us

Anne Gene Callot Davis Allyson Clark Alvin Cruz Anton Dahlerbruch Adan Ortega Alicia Estrada Alex Farassati Andrea Harrington alfred ibanez Alicia Jensen Lasso, Aracely Alex Geyer Alex Hamilton Alfonso Nunez Alfredo Magallanes Vaikko Allen Ann Lopez Amelia Amy Ho Andrew Arcuri andy niknafs Andy Winje, P.E. Ankita Vyas Anthony Hicke Anu Garg Allan Rigg Arne Anselm Arnold Shadbehr Andrew Sheldon Ashli Desai Anthein Thomas **Richard Atwater** Alma Varela Bahram Akhavan Barbara Klos Beth Bax **Brandon Burgess** Bed Dawadi **Bill DePoto** Betsy Elzufon Bill Workman Bernie Iniguez Bruce Inman Bruce Inman Brad Losey Blaine M. Michaelis

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**RB-AR4597** 

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# **RB-AR4599**



EDMUND G. BROWN JR.

MATTHEW RODRIGUEZ SECRETARY FOR INVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

TO: Los Angeles County MS4 Permittees and Interested Persons

Samuel Unger, P.E. FROM: **Executive Officer** 

- DATE: August 7, 2012
- NOTICE OF CHANGE TO DATE OF BOARD HEARING ON THE TENTATIVE SUBJECT: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT BOUNDARIES, INCLUDING UNINCORPORATED AREAS OF LOS ANGELES COUNTY, AND THE INCORPORATED CITIES THEREIN, EXCEPT THE CITY OF LONG BEACH (LOS ANGELES COUNTY MS4 PERMIT) (NPDES PERMIT NO. CAS004001)

The date of the public hearing on which the Los Angeles Regional Water Quality Control Board will receive comments and evidence, and consider adoption of, the Tentative NPDES Permit for MS4 discharges within the Los Angeles County Flood Control District boundaries (Tentative Permit) has been changed from September 6-7, 2012 to October 4-5, 2012. The hearing will take place on:

Date: Thursday, October 4, 2012 and Friday, October 5, 2012 Time: 9:00 AM Place: Metropolitan Water District of Southern California, Board Room 700 North Alameda Street Los Angeles, CA 90012

This schedule change avoids the scheduling conflict between the Annual League of Cities Conference and Expo and the original dates for the Board hearing on the Tentative Permit, which was brought to our attention by several Los Angeles County MS4 Permittees.

Please check the Board's website (http://www.waterboards.ca.gov/losangeles/) for the most upto-date public hearing location as it is subject to change. If there should not be a quorum on the scheduled date of this hearing, the item will be automatically continued to the next scheduled meeting. A continuance of this item will not automatically extend any of the deadlines set forth in the Notice of Opportunity for Public Comment and Notice of Public Hearing dated on June 6, 2012. If you have any questions, please call Renee Purdy, Chief, Regional Programs Section at (213) 576-6622 or Ivar Ridgeway, Chief, Storm Water Permitting Unit, at (213) 620-2150.

MARIA MERRANIAN, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

# **RB-AR4600**

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**RB-AR4612** 



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August 22, 2012

#### VIA E-MAIL iridgeway@waterboards.ca.gov

Mr. Ivar Ridgeway Los Angeles Regional Water Quality Control Board 320 W. 4th Street, Suite 200 Los Angeles, CA 90013

# Re: Draft MS4 NPDES Permit for Los Angeles County and Cities Therein Except the City of Long Beach; Request for Production of Documents at Hearing

Dear Mr. Ridgeway:

On behalf of the City of Signal Hill ("Signal Hill"), we request a 30 minute allocation of time for Signal Hill's presentation during the October 4-5 public hearing on the Draft National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer System (MS4) Discharges Within the Los Angeles County Flood Control District, Including Unincorporated Areas of Los Angeles County, and the Incorporated Cities Therein, Except the City of Long Beach (Los Angeles County MS4 Permit) (NPDES Permit No. CAS004001) ("MS4 Public Hearing").

We further request that staff bring to the MS4 Public Hearing the July 23, 2012 comment letter from Signal Hill City Manager Kenneth Farfsing, including attachments. The attachments include:

- July 22, 2012 Letter (and attachment) from Kinnetic Laboratories to Kenneth Farfsing regarding "Comments on Attachment E Draft Monitoring and Reporting Program and the proposed Municipal Action Levels (Attachment G)";
- Cost Estimation and Environmental Impacts Worksheet (Trash TMDL, Metals TMDL and Bacteria TMDL) for the Los Angeles River, July 25, 2006; and
- Statement before the Los Angeles Regional Water Quality Control Board, NPDES Permit Workshop November 10, 2011, by Steve Myrter, Director of Public Works, City of Signal Hill.

**RB-AR4613** 

Mr. Ivar Ridgeway August 22, 2012 Page 2

Please do not hesitate to call if you have any questions.

Very truly yours,

ALESHIRE & WYNDER, LLP

David D. Boyer Attorney

DDB:mwy

cc: Mr. Kenneth Farfsing

.



# **CITY OF SIGNAL HILL**

## 2175 Cherry Avenue + Signal Hill, CA 90755-3799

23 July 2012

VIA EMAIL

Mr. Ivar Ridgeway State Water Resources Control Board Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, CA 90023

rpurdy@waterboards.ca.gov iridgeway@waterboards.ca.gov LAMS42012@waterboards.ca.gov

### Subject: Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit

Dear Mr. Ridgeway:

I am writing on behalf of the City of Signal Hill to provide comments on the June 6, 2012 Tentative Order for the reissued NPDES Permit for the Greater Los Angeles County Municipal Separate Storm Sewer System. Thank you for the opportunity to provide these comments.

The City of Signal Hill appreciates the process that the Regional Water Board and its staff have followed in developing the new permit. We particularly appreciate the availability and responsiveness of the key staff members working on development of the draft permit. However, given the magnitude of the permit and the complexities and costs of some of the new and revised requirements, we would have appreciated an Administrative Draft between the incomplete Staff Working Proposal and the Tentative Order. We have several concerns with the Tentative Order that might have been resolved had there been an Administrative Draft with a comment period that would have allowed further discussions with staff and presentations to the Board on critical permit issues.

The City of Signal Hill has several concerns with the Tentative Order. The most significant is the tremendous cost increase at a time when municipalities have lost money

City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 2 of 19

to the State and are in dire financial straits. Our second serious concern is that the way the discharge prohibitions and receiving water limitations are expressed in the Tentative Order is inconsistent with precedential State Water Board Order 99-05 and will expose our city and the other Permittees to third-party lawsuits, even though we are following the permit and the iterative process in a conscientious manner to improve water quality. The third most serious flaw is the expression of final TMDL waste load allocations as numeric water quality-based effluent limits (WQBELs). Fourthly, the City of Signal Hill is extremely disappointed that our request for a separate MS4 is denied in the Tentative Order.

We will offer explanations of three of our major concerns with the Tentative Order, followed by specific comments on other sections of the Tentative Order, and a justified request for a separate MS4 permit for the City. Some of the following comments were previously provided to staff in letters that we understand were not provided to individual Regional Water Board Members.

#### **Excessive and Disruptive Costs**

We recognize that both the State Water Board and the Regional Water Board have been handicapped by lack of funds for staff and needed research by the State's budgetary woes. However, it appears that Regional Board staff did not fully consider the costs of proposed new and expanded elements of the Tentative Order; nor did they appear to appreciate the fiscal crisis impacting cities and counties in Los Angeles County.

One example of staff's misunderstanding of municipal finances, or lack of concern about the fiscal crisis facing Los Angeles County and the cities within the County, is Provision VI.A.3.a. This provision requires that "Each Permittee shall exercise its full authority to secure the fiscal resources necessary to meet all requirements of this Order." We note that this provision is labeled a standard provision. However, we could not find it in either the Standard Provisions or the Special Provisions of Order No. 01-182. the current MS4 Permit. Inclusion of such a provision in the Tentative Order appears to demonstrate that staff believed they were given carte blanche to include new and expanded requirements without serious consideration of costs or the ability of municipalities to pay to meet the requirements without cutting other services. In reality, stormwater quality programs arc, for the most part, utilities without dedicated funding sources. Since the passage of Proposition 218 in 1996, it has been extremely difficult for local governments to charge new fees to pay for the ever-expanding requirements of MS4 permits.

One component of the Tentative Order where staff included new and expanded requirements without serious consideration of costs is the Monitoring and Reporting Program. This component and the inclusion of TMDL implementation requirements are the major drivers of the increased costs associated with the new Los Angeles County MS4 permit(s). Our city was so concerned about the complexities and potential costs of the expanded Monitoring Program that we enlisted the assistance of Kinnetic Laboratories. Incorporated (KLI) to review the proposed new monitoring requirements

City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 3 of 19

and the proposed Municipal Action Levels. Their comments are found in Attachment 1 to this letter. Many of their comments relate to the cost impacts of the new requirements. KLI's overall assessment is that "The Draft Monitoring and Reporting Program in the tentative order will drastically increase monitoring costs." They go on to say that "We strongly believe that the programs, as currently specified, will only lead to magnification of current monitoring costs without any substantial improvements in addressing the real issue of assuring that beneficial uses are maintained in the receiving waters." KLI's specific comments on elements of the Monitoring Program are addressed below in the monitoring comments section of this letter.

The fiscal plight of cities in Los Angeles County and across the state was highlighted in a July 19. 2012, front-page article in the Los Angeles Times entitled, "Compton on Brink of Bankruptcy." In addition to discussing the fiscal challenge facing the City of Compton, the article describes "the complexity of the fiscal crisis roiling California cities this year." Also in the July 19, 2012, edition of the Times, the Capitol Journal column by George Skelton was entitled "Fatal Flaws in State Finances." The opinion piece starts by noting, "San Bernardino, Stockton, and Mammoth Lakes all screwed up and became bankrupt. But the rest of us shouldn't get sanctimonious." Mr. Skelton makes the point that the root cause of the financial plight of local governments in California is systemic and that the funding arrangements between the State and the cities, counties, and school districts is unworkable. He also asserts that things could get worse before they get better. He notes that eight other cities, including Monrovia and El Monte, have notified potential bond buyers that the cities are in scrious trouble.

Skelton also observes that the cities flirting with bankruptcy are "vulnerable to all the falling financial crud that threatens to bury them." This includes the exponentially increasing costs of stormwater quality management and compliance associated with implementing the Tentative Order, as written. The costs of the expanded monitoring program and the method of incorporating permit requirements that are consistent with the assumptions and requirements of waste load allocations of over 500 water body-pollutant combinations contained in 33 TMDL documents will place extreme financial stress on cities that are already coping with a bad economy, pension liabilities and the seizure of redevelopment funds by the state, as well as exposure to third-party lawsuits. Member Lutz, Mayor of the City of Monrovia, should be able to shed some light on the financial plight of cities for the Board since Monrovia is one of the eight cities that, according to the State Treasurer's office, disclosed the seriousness of its financial problems to potential bond buyers.

The loss of redevelopment funding is a significant problem for Signal Hill, where the Signal Hill Redevelopment Agency had budgeted over \$800,000 this year to begin to address five of the six TMDLs that currently regulate our small. 2.2 square mile community. AB 1X26 effectively dissolved redevelopment agencies statewide and has resulted in Signal Hill's having to devote additional General Fund revenues to implement our stormwater program at a very difficult financial time for the community. Without the planned Redevelopment Agency expenditures, the City has budgeted \$869,235 for the coming fiscal year (see table below) to fund its Stormwater Program. However, this

City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 4 of 19

amount is far below what is required to fully address the TMDLs that impact our city. Our estimated stormwater budget for the next few years to fully address permit requirements and TMDL implementation is approximately \$1.6 million per year. We don't foresee a time in the next four to five years when our General Fund will be able to keep up with the stormwater costs resulting from the Tentative Order, as written, which means that existing programs will need to be severely reduced or eliminated to fund the new stormwater requirements.

#### Figure 1

City Acct. No.	Budget Item Description	FY 12/13 Budget	Comments
510	Personnel	\$ 63,010	
309	Trash Reduction TMDL	\$ 74,575	Catch Basin Inserts and Hamilton Bowl
347	Annual MS4 Permit Fee	\$ 5,000	
355	Legal Services	\$ 50,000	
356	Storm Water Quality Contract Services & Technical Studies	\$427,000	Includes expenditures required for special studies for newly implemented and proposed TMDL's
372	Restaurant /Industrial Waste Inspections	\$ 44,000	Cost offset by fees
3 <b>7</b> 6	Street Sweeping	\$150,400	
	Bus Shelter Cleaning	\$ 31,000	Cost offset by Proposition A
440	Recycling and Haz-Waste	\$ 24,250	
Proposed FY 12-13 NPDES Budget:		\$869,235	

#### City of Signal Hill Environmental/Stormwater Program Budget

It appears from the magnitude of increased costs associated with the Tentative Order that Regional Board staff assumes that the stormwater fee proposed by the Los Angeles County Flood Control District will be approved by property owners next spring. Actually, passage of the fee is far from certain. In fact, the proposed fee came before the County Board of Supervisors three times before staff was directed to move forward with creation of a Final Draft Ordinance, a protest hearing, and a possible vote. If the Regional Water Board agrees with staff that the new costly programs should be required, perhaps those City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 5 of 19

programs should be contingent upon passage of the stormwater quality fee next year. This would be parallel to the actions taken by the University of California Board of Regents in freezing undergraduate and some graduate school tuitions pending the vote on the Proposition 30 tax hike measure in November.

The County has estimated that Signal Hill is likely to receive only \$211,000 annually if the water quality fee is passed by the voters. Although this amount will be helpful, it is only a fraction of the estimated amount necessary to implement the six TMDLs regulating our community and to meet other permit requirements. As the Regional Board is aware, these six TMDLs are likely to be supplemented by additional TMDLs and the NPDES permit requires compliance with other water quality standards not found in the TMDLs.

To further illustrate the dire financial impact that the Tentative Order will have on the City of Signal Hill, we are submitting the attached Cost Estimation and Environmental Impacts Worksheet for implementing the Trash TMDL, the Metals TMDL, and a Bacteria TMDL for the Los Angeles River dated July 25, 2006. At that time, the total NPDES budget was estimated at \$534,475 (Attachment 2). As shown above, our costs to implement our ongoing stormwater quality program, including maintenance costs associated with implementing the Los Angeles River Trash TMDL, are projected to be over \$869,000 for 2012-2013. This budget does not include full implementation costs for the Los Angeles River Metals TMDLs, the Los Angeles River Bacteria TMDL, the Los Angeles River Estuary Bacteria TMDL, or the Los Cerritos Channel Metals TMDLs.

## Consistency with State Water Board Order 99-05

The City of Signal Hill agrees with the LA Permit Group's concern that the receiving water limitation (RWL) language currently in the Tentative Order creates an unnecessary and counter-productive liability for municipalities. If the language in the Discharge Prohibitions and Receiving Water Limitations Parts of the Order were fully consistent with precedential State Water Board Order 99-05, the liability for municipalities could be avoided.

With the exception of section references and substituting "Receiving Water Limitations" for "Water Quality Standards" and "Water Quality Objectives or Water Quality Standards," the language in the Tentative Order is virtually identical to the receiving water limitation language in the 2001 MS4 Permit that the United States Court of Appeals for the Ninth Circuit has interpreted differently than the State Water Board's interpretation since Order 99-05 was adopted on June 17, 1999. In this precedential order, the State Water Board substituted EPA receiving water limitation language for language that the State Water Board had included in Order 98-01, to which EPA objected when the language was used in permits issued by the San Francisco Bay and San Diego Regional Water Boards.

City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 6 of 19

During the July 9, 2012 staff workshop on the Tentative Order, staff stated that the language had not been substantially changed because the current language was mandated by the State Water Board's precedential order. However, the language in the 2001 MS4 permit was not totally consistent with the precedential order issued by the State Water Board. Order 99-05 clearly states that "The Permittees shall comply with Discharge Prohibitions [ ]³ and Receiving Water Limitations [ ] through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP and other requirements of this permit including any modifications." Footnote 3 directs that appropriate numbers for prohibitions and limitations that implement water quality objectives and water quality standards be inserted in place of the brackets. The Order goes on to say that "If exceedances of water quality objectives and water quality standards (collectively, WQS) persist not withstanding implementation of the SWMP and other requirements of this permit, the Permittees shall assure compliance with Discharge Prohibitions [ ] and Receiving Water Limitations [ ] by complying with the following procedure ...." The specified procedure is the procedure that has become known as the iterative process.

The Tentative Order and the 2001 MS4 Permit are both inconsistent with Order 99-05 in that the iterative process is only included in the Receiving Water Limitations part of the permit instead of being included in both the Discharge Prohibition and the Receiving Water Limitations parts of the permit. The Regional Water Board could correct this deficiency by adding iterative process language similar to the language in Part V of the Tentative Order to Part III of the Order. The Board should also make sure that the iterative process language clearly applies to the cause or contribute prohibitions contained in the Receiving Water Limitations part of the Tentative Order. One way of accomplishing this would be to incorporate the Receiving Water Limitations language suggested by the California Stormwater Quality Association.

The Regional Board should also specifically reference Watershed Management Programs in Parts III and V in order to better integrate the Watershed Management Program provisions with the iterative process in the Discharge Prohibitions and the Receiving Water Limitations parts of the permit. In addition to achieving compliance with Order 99-05, such modifications to the proposed permit would foster implementation of the adaptive management process described in the Watershed Management Program provisions and reduce the vulnerability of the Permittees to enforcement actions and third-party lawsuits when they are engaged in an iterative (adaptive management) process through a watershed-based program to address exceedances of water quality objectives and water quality standards in a prioritized, systematic manner, as the Regional Board is encouraging with the incorporation of the Watershed Management Program provisions into the permit.

Further, the Regional Water Board should work with the State Water Board to consider other ways to strengthen the iterative process mandated by Order 99-05. The magnitude of changes resulting from expressing the final waste load allocations from 33 TMDL documents as numeric water quality-based effluent limitations could place some City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 7 of 19

Permittees in immediate non-compliance with the permit if they do not have the ability to respond to exceedances of water quality standards, including WQBELs, through an orderly adaptive management process.

#### Consistency with Assumptions and Requirements of WLAs in TMDLs

The City of Signal Hill supports the premise behind Provision VI.E.1 that provisions of this part of the permit must be "consistent with the assumptions and requirements of all waste load allocations (WLAs) established in TMDLs for which some or all of the Permittees in this Order are responsible." This statement is consistent with the requirement in 40CFR 122.44(d)(1)(vii)(B) which requires that when developing water quality-based effluent limits, the permitting authority shall ensure that:

"(B) Effluent limits developed to protect a narrative water quality criteria, a numeric water quality criteria. or both, are consistent with the assumptions and requirements of any available waste load allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7."

However, the regulations do not require WQBELs to be numeric in order to be consistent with the assumptions and requirements of waste load allocations. In fact, 2002 and 2010 EPA guidance memos both clearly allow the WQBELs in permits to be expressed either numerically or in the form of BMPs. It is a decision left to the permitting authority.

The issue of how to express water quality-based effluent limitations in NPDES permits has long been debated. On August 26, 1996, EPA gave notice in the Federal Register (61 Fed. Reg. 43761) that it had issued a policy outlining an interim approach for incorporating water quality-based effluent limitations into stormwater permits. The policy states that stormwater permits do not need to include water quality-based effluent limitations. Instead, the policy focuses on the use of BMPs followed by "expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards." The policy applies only to EPA, but EPA encouraged states to adopt similar policies for stormwater permits. California did so, as explained in SWQCB Order 91-03. This policy formed the basis for what was later articulated in State Water Board Order 99-05.

In Order 98-01, the State Water Board explained that it has "determined that for municipal separate storm water permits, BMPs constitute valid effluent limitations to comply with both the technology-based and water quality-based effluent limitation requirements." The State Board also noted that, "In fact, narrative effluent limitations requiring implementation of BMPs are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements, including reduction of pollutants to the maximum extent practicable, and water quality-based requirements of the CWA." The State Water Board also concluded that "storm water permits must City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 8 of 19

achieve compliance with water quality standards, but they may do so by requiring implementation of BMPs in lieu of numeric water quality-based effluent limitations," and that, "Given the unique nature of storm water discharges, it is reasonable that implementation take place, where appropriate, on a phased basis." Based on these and other conclusions, and as a precedential decision, the State Water Board approved receiving water limitation language to be included in future municipal storm water permits. As explained above, this language was not acceptable to EPA and the State Water Board adopted more rigorous language in Order 99-05.

EPA affirmed the appropriateness of an iterative adaptive management BMP approach for improving water quality over time in its November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs." This memorandum clarified EPA's regulatory requirements for, and provided guidance on, establishing waste load allocations for stormwater discharges in TMDLs approved or established by EPA. It also provided guidance for the establishment of water qualitybased effluent limits in NPDES permits based on WLAs for stormwater discharges in TMDLs. A key point presented in the memorandum was that "EPA expects that most WQBELs for NPDES-regulated municipal and small construction storm water discharges will be in the form of BMPs, and that numeric limits will be used only in rare instances."

On November 12. 2010, EPA issued a revised guidance memorandum that indicated a preference for numeric WQBELs and recommended that permitting authorities use numeric effluent limitations in permits for MS4s and/or small construction stormwater discharges, where feasible. However, EPA continued to acknowledge permitting authority discretion concerning whether to use numeric WQBELs or to express WQBELs in the form of BMPs.

The 2010 EPA guidance memo states that when WQBELs are expressed in the form of BMPs, "the permit should contain objectives and measurable elements (e.g., schedule for BMP installation or level of BMP performance)." The City of Signal Hill strongly urges the Regional Water Board to direct staff to follow this approach and incorporate narrative WQBELs in the permit consistent with the WLAs in applicable TMDLs. This would facilitate the creation and use of a deemed compliant approach as was used in the Los Angeles River and Ballona Creek Trash TMDLs with approved full-capture devices. It would also allow a credit toward a compliance approach in which credit could be given for pollution prevention programs, such as SB 346, which target the true sources of pollutants over which Permittees have little or no control. Integrating WQBELs into the next generation of MS4 permits in the form of BMPs will encourage experimentation and strong pollution prevention efforts that could lead to achievement of water quality standards in a cost-effective manner. One example of how this could be done is from the Los Angeles River Metals TMDL, which states:

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> "Each jurisdictional group shall demonstrate that 75% of the group's total drainage area served by the storm drain system is effectively meeting the dry weather WLAs."

This requirement could be expressed in the permit as a WQBEL in the form of BMPs, as follows:

Permittees shall demonstrate that source control measures and treatment controls designed to effectively meet dry weather WLAs are being implemented and maintained in 75% of the total area served by the storm drain system.

In most cases, converting waste load allocations to WQBELs expressed as BMPs should not be time consuming, and having BMP implementation targets is an understandable and manageable task if money is available. On the other hand, meeting numeric WQBEL targets can be frustrating and potentially paralyzing and could cause more money to be spent on lawyers than on best management practices and other control measures. We urge you to direct staff to use the WQBELs as BMPs approach in a Revised Tentative Order.

The staff statement to Vice Chair Stringer during the May 3, 2012 Regional Board Permit Workshop that Permittees think the BMP approach gives more certainty about being in compliance because of the variability in rainfall was an accurate summation of the situation. In the absence of a uniform design storm for TMDL compliance. Permittees fear the potential for third-party litigation, especially after a large, high intensity rain event. The situation is compounded by the incorporation of 33 TMDL documents, including requirements for over 500 waterbody/pollutant combinations. Even though Permittees are already addressing many of these TMDL requirements on an *ad hoc* basis, the requirements are now going to be grouped together in the permit, and Permittees will be exposed to third-party litigation due to the TMDLs now being permit requirements.

The City of Signal Hill requests that the Board recognize the fears of Permittees and encourage expedient efforts to address the water quality impairments by including WQBELs expressed in the form of MEP compliant BMPs in the MS4 permits. Ideally, we would prefer that WQBELs always be expressed in the form of BMPs. However, we acknowledge that both the Board and the environmental community have concerns about the commitment of municipalities to effectively address water quality impairments. We believe that municipalities are more committed to improving water quality than either the Board or environmental groups believe we are. In order to give us a chance to demonstrate our commitment, we ask that you express WQBELs in the MS4 permits for at least the next permit term in the form of BMPs, with the provision that you will review this decision during the development of the next cycle of permits.

The City of Signal Hill also requests that Provision VI.E.2.d.i be modified by adding a subsection that specifies that a Permittee shall be considered in compliance with an interim water quality-based effluent limitation and/or interim receiving water limitations

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for pollutant(s) associated with a specific TMDL while preparing a Watershed Management Program Plan in accordance with Provision VI.E.3 and Provision VI.C. We further request that interim implementation schedules be placed in the permit for EPA-established TMDLs covered by Provision VI.E.3 to provide protection from third-party litigation while Watershed Management Programs are being prepared and Basin Plan Amendments with implementation schedules are being drafted and adopted.

We would be pleased to work with staff and other interested parties to develop workable language.

#### Watershed Management Programs

Staff noted at the beginning of the April 5, 2012 Board Workshop on reissuance of the Permit that there was a decision last fall to structure the permit in such a way as to facilitate watershed management. The City of Signal Hill appreciates Staff's efforts to encourage and facilitate the watershed approach. It could encourage collaboration and could focus resources on the highest priorities, especially if the AB 2554 stormwater fee - with 50% of its funding allocated to watershed efforts approved by the proposed Watershed Authority Groups - is supported by property owners.

The City of Signal Hill is vitally interested in watershed planning. In fact, the City took a leadership role in organizing 40 cities, Los Angeles County, and Caltrans in the Los Angeles River Watershed to address the monitoring requirements for the Los Angeles River Metals TMDLs. Signal Hill convinced 35 of the cities, the County, and Caltrans to fund critical special studies related to the TMDLs.

The City also organized Jurisdictional Group 1 for the Los Angeles River Metals TMDLs. Upon the withdrawal of the City of Los Angeles and the County of Los Angeles, Signal Hill organized the remaining cities pursuant to MOAs with the Gateway Council of Governments. In addition, the City of Signal Hill organized cities within the Los Cerritos Channel Watershed to work with EPA and with the Regional Water Board. The Los Cerritos Channel work began informally in late 2008 initially to negotiate elements of the Metals TMDLs to be established by EPA. In 2010, the watershed cities formalized this watershed cooperation through a series of MOAs with the Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority (Gateway Water Management Authority) to develop an implementation plan, work with Regional Board staff on a Basin Plan Amendment to appropriately incorporate the TMDLs into the Basin Plan, conduct special studies, and implement measures to achieve compliance with the Los Cerritos Channel Metals TMDLs.

We are encouraged by the staff's draft provisions in the Tentative Order that would allow individual cities to customize their strategies, control measures and BMPs to address these customized measures, either individually and/or with a larger group of Permittees, in the Watershed Management Programs. The City trusts that customization will foster creativity and allow experimentation. For instance, with Metals TMDLs, we believe that City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 11 of 19

to be successful in meeting water quality standards over the long-term, we will need to address the sources of metals deposited on the watershed through atmospheric deposition and get the help of various State and Regional agencies to control these sources.

We agree with the goal of the Watershed Management Program provisions to ensure that discharges from the MS4 achieve applicable water quality-based effluent limitations and do not cause or contribute to exceedances of receiving water limitations. We also recognize that programs cannot guarantee that either effluent limitations or receiving water limitations are met at all times because of variations in rainfall and the absence of a water quality design storm above which water quality standards would not be enforced on dischargers. Requiring achievement of effluent limitations and receiving water limitations for large, rare storms exceeds the maximum extent practicable (MEP) standard for MS4 discharges. The Tentative Order does specify that structural BMPs should be sized to treat the volume of stormwater runoff from the 0.75-inch, 24-hour rain event, or the 85th percentile, 24-hour storm, whichever is greater. However, the Tentative Order does not clearly state that this design storm is also the design storm for permit compliance.

The City of Signal Hill requests that the permit be structured to use the runoff from the 85th percentile, 24-hour storm event as a consistent design storm for both BMP design and enforcement of water quality standards. We have seen the Power Point presentation given by Dr. Youn Sim on the development of a water quality design storm at the 2011 CASQA Annual Conference. It builds on the work done by the Regional Board's design storm task force and presents a compelling argument for the 85th percentile, 24-hour design storm for both design and enforcement. Such an action by the Regional Board would help convince municipalities that they are not wasting money by investing in BMPs and other control measures in the absence of a physical limit on the storm size for which they have to meet water quality standards.

The City agrees with the requirement in Provision VI.C.1.c. that, within a Watershed Management Program, customized strategies and BMPs can be implemented through each Permittee's stormwater program, and/or collectively by all participating Permittees through the Watershed Management Program. We further agree with the requirement in Provision VI.C.3.b.i that Permittees identify strategies, control measures, and BMPs to be implemented through their individual stormwater programs, and collectively on a watershed scale, and Provision VI.C.3.b.iv.(4)(e) that Watershed Management Program plans clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures. This measure should protect conscientious Permittees from being held liable for the actions or inactions of other Permittees. We would appreciate confirmation of our interpretation that the provision provides protection against joint and several liability related to the actions or inactions of "bad actors." Making this clear in the permit will help convince every Permittee that it will be held responsible for its own actions or inactions, and that it will not be possible to hide and depend on the actions of other entities for protection.

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The City strongly supports the requirement in Provisions VI.C.1.f.ii that each Watershed Management Program identifies and implements strategies, control measures, and BMPs to achieve applicable water quality-based effluent limitations, receiving water limitations, and/or non-stormwater action levels. It is imperative that Permittees and the Regional Board think beyond traditional treatment control BMPs in order to cost-effectively achieve compliance with water quality standards. However, we question the language of Provision VI.C.1.f.iii related to executing a monitoring and assessment program to determine progress toward achieving applicable limitations and/or action levels. We understand that the Regional Board would prefer to have a numeric indicator to monitor progress toward achievement of applicable water quality standards, but we are concerned with the wording of the requirement.

Specifically, we believe that the proposed wording is insufficient to prevent diversion of time, effort, and money due to third-party lawsuits based on temporary exceedances. The wording of the Provision should be modified to state that the monitoring and assessment program should be based on true benchmarks – indicators, rather than compliance points – designed to promote an adaptive management process during the implementation period.

The City is concerned that Provision VI.C.3.b.iii (Watershed Control Measures) does not sufficiently recognize pollution prevention, including what the California Stormwater Quality Association (CASQA) has described as *true source control*. Signal Hill, other cities within the region, and the Coalition for Practical Regulation contributed financial support, lobbyist services, and support letters for CASQA's efforts to address the major source of copper brake pad dust through a State legislative control measure, SB 346. The WMP section of the Permit should be re-written to recognize and encourage true source control as a pollution prevention measure that will ensure long-term compliance with water quality standards.

We acknowledge that Provision VI.C.3.b.IV(4) does recognize pollution prevention as a non-structural best management practice that can be included in Watershed Management Plans. However, we believe that true source control, including product substitution and materials substitution, as well as product take-back, needs more emphasis in regional and statewide efforts to improve water quality.

The City also appreciates the fact that the Regional Water Board's Watershed Management Areas (WMAs) may be subdivided into subwatersheds to focus water quality prioritization and implementation efforts by receiving waters, as well as the opportunity for individual municipalities to establish their own watershed management programs for watershed sub-drainages.

Further, the City appreciates Provision VI.C.3.b.iv.(4)(e) that specifies that the Water Management Program plans "shall clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures." We trust that this provision, in combination with a provision in the Code of Federal Regulations [40]

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CFR 122.26(a)(3)(vi)] that states, "co-Permittees need only comply with permit conditions related to discharge from municipal storm sewers for which they are operators," will protect conscientious Permittees from being held liable for actions or inactions of other Permittees participating in the same Watershed Management Program.

The City of Signal Hill strongly supports the adaptive management process. A formal adaptive management process is specified in the Watershed Management Program section of the Tentativc Order, but we regard the process as an integral element of the entire water quality improvement program. It was incorporated by the State Water Board into the receiving water limitation language adopted in State Board Order 99-05 as what has become known as the "iterative process." It was also recommended in the 2001 National Research Council report, *Assessing the TMDL Approach to Water Quality Management.* The Council's Committee to Assess the Scientific Basis of the Total Maximum Daily Load Approach to Water Pollution Reduction strongly recommended that "TMDL plans should employ adaptive implementation." The Committee defined adaptive implementation as "a cyclical process in which TMDL plans are periodically assessed for their achievement of water quality standards including beneficial uses."

Although adaptive management is a continuous process, having a requirement in the permit to report annually during the permit term beginning in 2015 could be valuable in focusing on continuous evaluation and improvement of a watershed management program, and on progress toward achieving water quality-based effluent limitations and receiving water limitations. The requirement in Provision III.C.6.b.i that individual Permittees revise their Jurisdictional Stormwater Management Programs annually will also foster continuous evaluation and adaptation of program elements.

## Monitoring and Reporting Program

As noted above, the City of Signal Hill had Kinnetic Laboratories, Incorporated review the monitoring component of the Monitoring and Reporting Program because of its complexities and potential costs. KLI concluded that the monitoring program, as proposed, would be extremely costly and impractical. KLI's report (Attachment I) described the substantial monitoring effort over the last 20 years to assess chemical, physical, and biological impacts of pollutants on receiving waters and listed some of the many benefits of long-term monitoring of stormwater quality and quantity. However, they concluded that continuing and expanding on the current approach will tremendously inflate the costs of monitoring without substantially increasing the likelihood of making measurable progress of meeting the Clean Water Act goals of "fishable and swimmable waters." Specifically, KLI recommended that continued intensive annual mass-emission sampling be conducted during alternating permit cycles to track long-term trends. Continual intensive monitoring for TMDLs should be limited to the constituents of concern. Savings from decreased mass-emission monitoring could be directed toward special studies to identify whether stormwater discharges are having measureable impacts on beneficial uses.

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KLI also concluded that the proposed monitoring in Attachment E to the draft order would drastically increase monitoring costs, largely because of the proposed wet-weather stormwater outfall monitoring and toxicity testing requirements. Because of the requirement to monitor at least one major outfall per subwatershed drainage area within a Permittee's jurisdiction, the total number of outfalls monitored could be 200 or more. If the equipment purchase, installation, and operation of auto-sampler at 200 sites were to cost an average of \$75,000 cach, there could be a first year cost of \$15 million for outfall monitoring. If each site were to cost \$100,000, the total cost to establish the stormwater outfall-based monitoring element of the monitoring program could be \$20 million.

KLI further concluded that the toxicity monitoring requirements could have a large impact on costs because of the large sample volumes required to allow both toxicity and chemistry monitoring. They also questioned the capacity of bioassay laboratories in Southern California to handle the large volume of samples.

In addition, KLI concluded that the present toxicity identification evaluation (TIE) requirements would add substantial costs to the program without providing useful information. They indicated that TIEs have served a purpose and will continue to play an important role in the identification of toxicants, but they argued that they should be used judiciously. KLI further suggested that simple measurements of chemicals currently known to be of concern are normally sufficient to identify problems without the added expense of numerous TIEs.

The report also contains several detailed comments in support of KLI's general conclusions. The City of Signal Hill recommends that Regional Board staff meet with KLI and other monitoring consultants to refine the Monitoring and Reporting Program to make it more practicable and less costly.

## **Attachment A - Definitions**

The City appreciates the inclusion of a Definitions attachment. The attachment is much more complete than the limited definition section in the Minimum Control Measures part of the Working Proposal. However, a few revisions should be made to clearly define additional terms used in the Tentative Order and to expand upon current definitions.

- **BMPs** There is already a definition for BMPs in Attachment A, but it should be revised to specifically reference source control, including true source control. Adding true source control to the definition of BMPs would encourage Permittees to be mindful of it as they design their stormwater quality improvement programs.
- Development The definitions of Development, New Development, and Redevelopment should be clearly defined and added to the Definitions Section as they are in the existing MS4 permit, except that the 5,000 square foot threshold in the definition of redevelopment should be increased to at least 10,000 square feet.
- Environmentally Sensitive Areas (ESAs) This term should be defined.

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- **Green Infrastructure** This term should be defined. EPA states on the LID page of its website that green infrastructure "is a relatively new and flexible term" that "has been used differently in different contexts." EPA also states, "Green infrastructure can be used at a wide range of landscape scales in place of, or in addition to, more traditional stormwater control elements to support the principles of LID."
- **Operational Source Control** This term needs to be clearly identified and utilized throughout the document to differentiate it from True Source Control.
- **Predevelopment conditions** This term is used in Provision VI.D.6.c.v(1)(c)(ii)2 and could be viewed in an overly broad manner unless it is clearly defined in the definition section.
- Stormwater harvest and use Since it may be desirable in the course of implementing TMDLs to harvest stormwater from an existing built-up area to infiltrate or use for irrigation, this term should be defined.
- **True Source Control** This term needs to be defined. Staff could use the definition from CASQA's True Source Control Initiative.

#### **Request for a Separate Permit**

While the City of Signal Hill appreciates the Regional Water Board's effort to reduce the potential problems of "Joint and Several Liability" in the Tentative Order, the City would still prefer to have its own MS4 NPDES Permit.

Provision VI.A.4.a of the Tentative Order specifies, "Each Permittee is required to comply with the Requirements of this Order applicable to discharges within its boundaries. Permittees are not responsible for the implementation of the provisions applicable to other Permittees." This is a welcome clarification in light of the joint and several liability provisions in TMDLs, such as the Los Angeles River Metals TMDLs, that are being addressed by the Tentative Order.

We also appreciate the clarification in part VI. E.2.b.ii that, in situations of commingled discharges in the MS4 prior to discharging to the receiving water that, "Pursuant to 40 CFR Section 122.26(a)(3)(vi), each Permittee is only responsible for discharges from the MS4 for which they are owners and/or operators." Further, we appreciate that provision VI.C.3.b.(4).(e) requires that a Watershed Management Program Plan "shall clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures." As mentioned above, this provision should help protect conscientious Permittees from being held liable for the actions or inactions of other Permittees.

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However, as noted by Steve Myrter in his statement at the Regional Water Board NPDES Permit Workshop on November 10, 2011, the City of Signal Hill strongly believes that it can and should be granted its own permit. The background and justification for the City's request for its own permit is contained in Mr. Myrter's statement (Attachment 3 to this letter).

The Fact Sheet (attachment F to the Tentative Order) cites on pages F-15 and F-16 several factors that the Regional Water Board considered in evaluating the Reports of Waste Discharge (ROWDs) requesting separate MS4 permits. The first factor referred to the large inter-connected nature of the Los Angeles County MS4 system and the fact that the discharges from multiple cities often co-mingle in the MS4 prior to discharging to receiving waters. This factor should not preclude the City of Signal Hill from having its own separate permit. The City discharges to both the Los Angeles River and the Los Cerritos Channel through the City of Long Beach that already has a separate MS4 permit.

The second factor relates to the requirement to implement 33 predominantly watershed – based TMDL documents in this Order. The fact sheet asserts that having separate permits would make implementation of TMDLs more cumbersome. The City of Signal Hill strongly disagrees with this assertion. The City led the organization of Jurisdictional Group 1 for the Los Angeles River Metals TMDLs and accommodated the withdrawal of the City of Los Angeles and the County of Los Angeles by organizing the remaining cities and Caltrans through MOAs with the Gateway Council of Governments. The City of Long Beach is one of the cities in Jurisdiction Group 1, and both Caltrans and the City of Long Beach have separate MS4 permits. In fact, the Caltrans permit was issued by a different Water Board, the State Water Board. Because all the entities are subject to the same metals TMDLs and have organized themselves pursuant to MOAs with the Council of Governments, having separate permits has absolutely no impact the ability of the entities within the Jurisdictional Group to work together to implement the TMDLs.

The City of Signal Hill also led the organization of the entities within the Los Cerritos Channel Watershed to address the Cerritos Channel Metals TMDLs established by USEPA. The County also withdrew from this group and Caltrans has not yet formally joined, although it is represented at Technical Committee meetings. The cities within the watershed are organized pursuant to MOAs with the Gateway Water Management Authority. The fact that the City of Long Beach has a separate MS4 Permit from the other six cities in the watershed has not had an impact on their ability to work together to address the metals TMDLs.

The Fact Sheet also mentions the Watershed Management Areas (WMAs) specified in the Order. Three of these MWAs include the City of Long Beach with its separate permit.

The third factor mentioned in the Fact Sheet is the passage of AB 2554, the development of the County's Water Quality Funding Initiative, and the fact that 50% of the funding is allocated to Watershed Authority Groups (WAGs) to implement collaborative water quality improvement plans. Long Beach, with its separate permit, is in two of the WAGs. Furthermore, the WAGs are to be organized as joint powers authorities, so the fact that City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 17 of 19

one or more Permittee might have a separate MS4 permit will have no impact. A fourth factor apparently considered by Regional Board staff was the results of the online survey administered by the Regional Board staff. The fact that only four Permittees expressed a preference for individual permits is not justification for a single, one-sizefits-all, approach.

Furthermore, issuing a separate MS4 permit will not end the City's leadership in responding to multiple TMDLs nor place undue burdens on the Regional Water Board. The City is committed to continuing to organize and lead the 42 entities in the Los Angeles River Watershed with respect to coordinated monitoring and special studies. We are also committed to working with the entities in Jurisdictional Group 1 for the Los Angeles River Metals TMDLs and with the cities in the Los Cerritos Channel Watershed. In addition, we will be working with multiple jurisdictions to address the Los Angeles River bacteria TMDLs, the City of Long Beach Beaches and Los Angeles River Estuary Bacteria TMDL, and the Harbor Toxics TMDL. The City of Long Beach, with its separate MS4 permit, is a party to all of these TMDLs, so having a second city with a separate permit will not make addressing the TMDLs more cumbersome.

With respect to the extra work for the Regional Water Board, there should not be much. Since the Tentative Order for the new Los Angeles County MS4 permit does not include a Principal Permittee, each Permittee will submit its own annual report and presumably its own Report of Waste Discharge (ROWD) 180 days prior to the Order expiration date. In addition, Permittees and/or Watershed Monitoring Programs will be submitting monitoring plans, multiple monitoring reports, and financially supporting regional studies.

One other reason that there should not be undue burden placed on Regional Water Board staff as a result of giving the City of Signal Hill its own permit is that the structure of the Tentative Order is such that it could easily be converted to an individual permit. We expect we would be subject to essentially the same requirements as the others cities in the County. However, the number of attachments would be fewer since we are not subject to all 33 of the TMDL documents being addressed in the Tentative Order. To assist Regional Board staff, we would be willing to prepare a suggested revision in Word "track changes" mode to facilitate development of a separate MS4 permit for the City.

We agree with Member Glickfeld that the permit should provide a variety of options. One option that we would like to see is for proactive cities, especially those in multiple watersheds, to receive separate permits. Such separately permitted cities could still work with watershed or sub-watershed groups through Memoranda of Agreement to address TMDL implementation and other water quality issues. Given its unique geographic characteristics, its industrial heritage, its comprehensive and effective stormwater quality program, and its regional leadership in organizing municipalities to address water quality problems in multiple watersheds, the City of Signal Hill should be given its own MS4

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permit. See attached Statement by Steve Myrter and Power Point presentation presented to the Regional Water Board on June 7, 2012. (Attachments 4 and 5).

## Conclusion

We urge Regional Board to give serious consideration to the comments of all Permittees regarding the language and requirements of the Tentative Order. It is the Permittees who have experience with design, construction, operation, and maintenance of BMPs and the implementation of MS4 permit requirements. Utilizing that experience could significantly enhance the workability of the new MS4 permit. We particularly ask that the Board direct staff to reduce the increased costs of new and expanded permit requirements, including the costs of the Monitoring and Reporting Program. In addition, it is critical that the Discharge Prohibitions and Receiving Water Limitations language be changed to completely incorporate the iterative process element of State Board Order 99-05 and that both interim and final WQBELs included to be consistent with the assumptions and requirements of TMDL wasteload allocations be expressed as BMPs, at least for the permit cycle.

Finally, the City of Signal Hill would strongly prefer to have its own MS4 permit. We think we have demonstrated the ability to manage our own permit, that the factors used to review ROWDs should not preclude our being issued an individual permit, and that it would not be a burden on the Board or its staff to issue the City of Signal Hill an individual permit.

Thank you again for the opportunity to provide these comments.

Sincerely,

CITY OF SIGNAL HILL

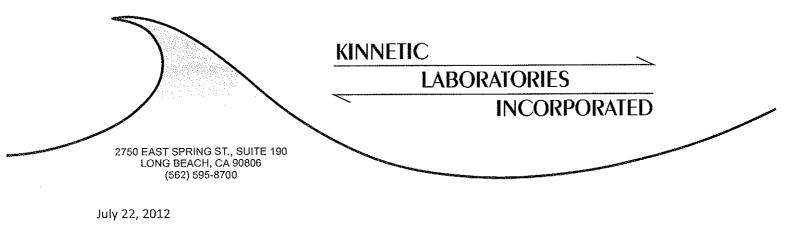
Kenneth Farfsing City Manager

Attachments

Ce: Board Member Maria Mehranian (Chair), LARWQCB Board Member Charles Stringer (Vice Chair), LARWQCB Board Member Francine Diamond, LARWQCB Board Member Mary Ann Lutz, LARWQCB Board Member Madelyn Glickfeld, LARWQCB Board Member Marla Camacho, LARWQCB Board Member Irma Muñoz, LARWQCB City of Signal Hill Comments on the Draft Tentative Order for the Reissued Los Angeles County MS4 Permit 23 July 2012 Page 19 of 19

Board Member Lawrence Yee, LARWQCB Sam Unger, LARWQCB Deb Smith, LARWQCB

# **RB-AR4633**



Mr. Kenneth Farfsing City Manager City of Signal Hill 2175 Cherry Avenue Signal Hill, CA 90775

## Re: Comments on Attachment E Draft Monitoring and Reporting Program and the proposed Municipal Action Levels (Attachment G)

Per your request, we have reviewed several items included in the **Tentative Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within The County Of Los Angeles Flood Control District, Including The County of Los Angeles and Incorporated Cities Therein, Except The City Of Long Beach** (Tentative Order). These include the Draft Monitoring and Reporting Program in Attachment E and the proposed Municipal Action Levels in Attachment G. Complete comments are enclosed.

We support shifting towards a watershed-based permitting system for more effective stormwater management. However, this should be done using a more adaptive management approach that allows the dischargers to address the issues in a staged manner where it is first determined whether discharges are having a significant impact on the receiving waters, identifying the nature of the impact, and then prioritizing further work in the watersheds or subwatersheds to address the primary issues. The present program will be extremely costly and impractical. Toxicity testing as currently designed will far exceed the capacity of the qualified bioassay laboratories in Southern California.

Please feel free to contact us if you have any questions regarding the detailed comments enclosed with this letter.

Sincerely,

Marty & Starmson

Marty Stevenson Principal and Senior Scientist

Enclosure (1)

# COMMENTS ON ATTACHMENT E DRAFT MONITORING AND REPORTING PROGRAM AND ATTACHMENT G MUNICIPAL ACTIONS LEVELS

#### **GENERAL COMMENTS**

Overall the proposed Monitoring and Reporting Program provides a number of elements that could be implemented selectively to address the listed primary objectives. The authors suggest that the plan also "provides flexibility to develop an integrated monitoring program to address all of the monitoring requirements of this Order and other monitoring obligations or requirements in a cost efficient and effective manner." Although we recognize and appreciate the benefits of being able to address these issues on a watershed or subwatershed basis, the overly prescriptive requirements will severely limit any cost-efficiencies that may have been achieved by this approach.

A substantial effort has been expended over the past 20 years in order to assess chemical, physical, and biological impacts on receiving waters as well as to characterize pollutant concentrations and loads. While this effort has proven valuable in many ways, continuing and expanding on upon this approach will tremendously inflate the costs of monitoring without substantially increasing the likelihood of making measurable progress towards meeting the Clean Water Act goals of "fishable and swimmable waters". Many of the benefits of long-term monitoring of stormwater quality and quantity include:

- the identification of organophosphate pesticides as a serious problem in stormwater discharges triggering the ultimate removal of these pesticides from the open market,
- Documentation of the rapid process in which diazinon and chlorpyrifos declined to levels below those that would cause a measureable amount of toxicity in urban stormwater,
- Identification of problems with pyrethroid pesticides that replaced former applications of diazinon and chlorpyrifos. Monitoring was actually not necessary to identify these compounds as likely problems in the receiving waters. This was predicted by many water quality professionals.
- The long-term monitoring efforts are just starting to show decreasing trends for lead and, to a
  lesser degree, zinc while many other common contaminants show no signs of change that can
  be distinguished such factors as normal variability due to the time of year, the size of the storm
  events, and antecedent dry weather conditions.
- Many of the persistent organic contaminants show signs of being detected more frequently at some sites but these types of compounds are poorly quantified by routine stormwater monitoring methods. Alternative, high volume (high cost) sampling methods are necessary to accurately assess loads for most of these compounds.

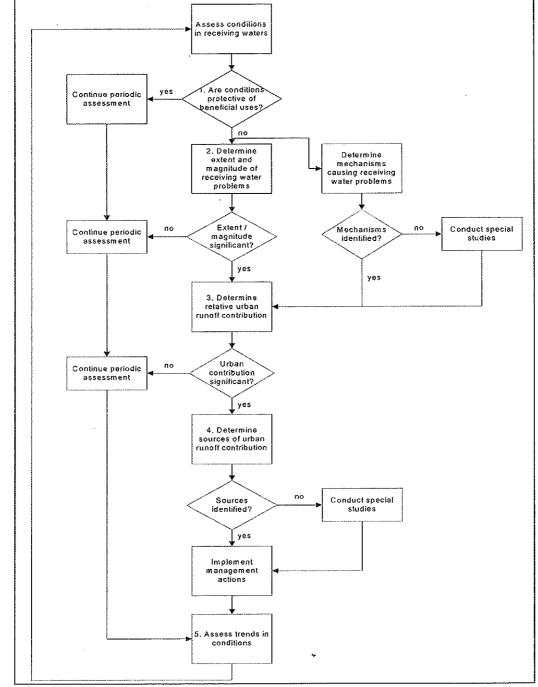
At the slow rates of decline that we are encountering for many of the remaining pollutants of concern, continued intensive annual sampling is not expected to be cost effective. Eliminating this type of monitoring for one permit cycle and then reintroducing this type of monitoring during the subsequent permit cycle should still be sufficient to document the more gradual decreases that we have only recently identified. Unless a site is subject to a TMDL, continued intensive monitoring of concentrations and loads is not expected to provide the benefits that we are seeking. For TMDL monitoring, only the constituents of concern would be sampled. Rather than increasing the intensity of monitoring, we would suggest decreasing routine mass emission monitoring. During the permit cycle where routine monitoring is minimized efforts could be better directed towards conducting receiving water monitoring designed to assess if stormwater discharges are having measureable impacts on the receiving waters and the nature of the impact. The mass emission monitoring effort would then be modified on the basis of these findings to focus on prioritized watersheds and subswatersheds that are having the greatest impacts on receiving waters.

Municipal Action Levels (MALs) are listed at the end of Attachment G to the Tentative Order. MALs are included for total mercury as 0.32 ug/L. These should be excluded for two reasons:

- Due to the volatility of mercury, it is inappropriate to collect and analyze mercury using
  peristaltic pumps and the intensive mixing processes necessary while combining multiple
  composite containers and subsampling into laboratory containers. If mercury was included in a
  program, sampling would need to be conducted manually using proper containers and sampling
  equipment. Although we recognize that the database used for the MALs was from composite
  samples, that still does not validate the approach.
- In addition to the problems with sampling methods, mercury was reported as detected in only 17% of the 178 samples. These included 30 samples of which 11 were reported as detected at the detection limit. Overall, this should not be considered an appropriate data set for calculation of MALs.

Savings introduced by decreasing the intensity of routine mass emission monitoring could be directed towards better studies in the receiving waters to identify whether stormwater discharges are having measureable impacts on beneficial uses. The results of these studies could then be used to prioritize and focus monitoring efforts on watersheds or sub-watersheds that are demonstrated to contribute to these impairments. This approach would be more consistent with the strategy suggested for the Model Municipal Stormwater Monitoring Program developed by the Southern California Stormwater Monitoring Coalition (Figure 1).

2



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Figure 1. Flow Chart proposed by the Stormwater Monitoring Coalition (1994) for a Model Municipal _ Stormwater Monitoring Program.

The Draft Monitoring and Reporting Program in the tentative order will drastically increase monitoring costs. We strongly believe that the program, as currently specified, will only lead to magnification of current monitoring costs without any substantial improvements in addressing the real issue of assuring that beneficial uses are protected and maintained in the receiving waters. The wet-weather stormwater outfall monitoring toxicity testing requirements comprise two of the most significant impacts on monitoring costs. Site selection, equipment purchase, installation, and operation of each of these sites will run roughly \$75K-\$100K for the first year of the program and many Cities will have two or three sites that will need to be monitored since they discharge into multiple subwatersheds.

The toxicity testing requirements have a large impact on costs from at least three perspectives. The large sample volumes required (cited as five gallons in the MRP but likely greater) alone will require that sample containers be switched at least two to four times within a 24 hour period. This will be necessary to assure that sufficient water is collected to cover both toxicity testing requirements and chemistry. In addition, the samplers must be set conservatively to assure that the full volume is obtained. This can result in even more bottle changes if the storm exceeds the predicted magnitude. When large numbers of bottle changes are needed, additional storm crews are needed to assure that bottles are changed as soon as possible after filling to avoid loss of storm coverage.

The cost of the toxicity testing requirements is a significant factor but, the availability of qualified bioassay labs to meet the high demands of this and other stormwater monitoring programs may be an even greater issue. With all stormwater programs requiring that sampling be conducted during the first major storm event, bioassay laboratories in Southern California <u>will not</u> have the capacity to handle the large volume of samples. This is exacerbated by the recent closure of several bioassay laboratories that had been active in stormwater programs.

The TIE requirements will also introduce substantial costs to the program and are highly unlikely to provide useful information. A successful TIE requires enough toxicity be present to allow the procedures to effectively partition the toxicity. The minimum cost of a TIE will run at least \$5,000 and can run much higher with incorporation of Phase II and III TIE procedures. It also requires that the toxicity is relatively stable. There have been many stormwater TIEs conducted of the past 12-15 years where the toxicity was either not stable or not of a sufficient magnitude to allow the nature of the toxicity to be partitioned. TIEs should be used judiciously to assure that they are applied only when there is a strong probability of producing results that are valid, scientifically supportable and that can be used to support actions that may be necessary to control the source of the toxicity.

There have been many successful TIEs conducted on stormwater in the past 20 years that have provided valid information that led to actions being taken to eliminate the source of the toxicity. This included TIEs conducted using *Ceriodaphnia* from roughly 1995 to 2005 that resulted in diazinon and chlorpyrifos

being removed from residential use. They have also been used to identify pyrethroid pesticides as the major cause of toxicity in receiving water sediments as a result of chemicals used to replace diazinon and chlorpyrifos. While TIEs have served a purpose and will continue to play an important role in identification of toxicants, simple measurements of chemicals currently known to be of concern are normally sufficient to identify the problem without the added expense of numerous TIEs.

#### **DETAILED COMMENTS**

#### E.2 Storm water outfall based monitoring, page E-4

This type of monitoring should be selectively applied when necessary to track upstream sources of contaminants. It should be recognized that if this monitoring requirement is uniformly applied across all of the municipalities covered by the permit it could include in excess of 200 sites. Identification of suitable sites meeting the criteria later established in this document would be useful so that additional source tracking could be more easily implemented but the current approach is contrary to the intent of the National Research Council (2008) that suggested movement toward watershed-based monitoring.

#### G. Analytical Procedures, page E-6

Analysis of Suspended-Sediment Concentrations (SSC) ASTM D-3977-97 is specified on this page and at other locations in the document. This requires further explanation since, strictly speaking, this method is inconsistent with composite sampling. The SSC analytical approach relies on analysis of the entire sample whereas stormwater samples are the result of a subsampling process. The SSC method is most applicable to samples taken with USGS methods based upon isokinetic sampling through the flow profile and subsequent sampling of the entire bottle. The large and inconsistent differences in sediment concentrations attributed to TSS measurements vs SSC measurements were mostly based upon comparison of the Standard Methods TSS method and the SSC method. The SM TSS method uses a pipette to obtain samples from a 1-Liter container. The more accurate EPA TSS procedure uses stirring and pouring of a subsample from the bottle. Guo (2007) did a thorough laboratory study comparing the three methods using laboratory developed particle size distributions. The percent recovery of solids and correlations among TSS, SSC and true concentrations were compared. Guo demonstrated that the EPA TSS method was comparable to the SSC and true concentrations until particle sizes reached 50 - 100 microns. Differences between the EPA-TSS procedure and SSC were attributed to larger particles not being well mixed and remaining in the 1-L bottle after pouring a subsample.

Ultimately, the measurement of solids in stormwater depends upon two steps. The first step involves use of a sound subsampling method to assure that larger particles are well distributed in the subsamples. The second step involves the process used to extract the sediment and

water from the laboratory container. For stormwater, use of the whole subsample is critical to avoid loss of residuals. This is similar to the SSC methods with the exception that SSC procedures do not involve a subsampling procedure that inherently adds error to the measurement. It is therefore important to specify that the SSC method used with composite stormwater samples is actually a modified procedure that relies on the use of sound, reproducible subsampling procedures.

## VI.C Minimum Wet Weather Receiving Water Monitoring Requirements, Page E-14

In general, this section needs to be split to separate monitoring requirements that might be appropriate for a mass emission station located at a site considered to be a receiving water site in a stream or channel and monitoring that is intended for bays, estuaries and the ocean where flow is not relevant. It is not clear that wet weather monitoring in the ocean, bays or estuaries should even be specified at this time. Any such work would more likely be developed as a special study if deemed necessary. Several monitoring efforts have previously been conducted to track plumes and toxicity but repeating these efforts may not be appropriate until it is demonstrated that land-based sources of zinc and copper, which were identified as the primary toxicants from Ballona Creek, are controlled down to levels expected to significantly reduce the observed toxic responses. Alternatively, this section may be intended to apply to wet weather monitoring as currently performed at the mass emission sites but that is not clear.

**1.b.i** The definition of a storm water event for purposes of sites located in the ocean, bay, or estuarine receiving waters is defined as "greater than or equal to 0.1 inch of precipitation, as measured from at least 50% of the Los Angeles County controlled rain gauges". This is inconsistent with typical definitions of storm events and, would unlikely be a quantifiable event in terms of flow. Section VI.C.1.b.iii provides a definition for the first significant storm event of the year that should apply to all events. This section requires permittees to target the first storm event of the year where at least 0.25 inches of rainfall is predicted at a 70% probability 24-hours before the expected start of the storm.

**1.b.iii** This section specifies that sampling events be separated by a minimum of three days of less than 0.1 inch of rain each day. This is an insufficient condition for defining the minimum interval between events. Dry conditions should persist for at least 3 day with a total of less than 0.1 inches of rain for the period. It should be further emphasized that wet weather monitoring should preferably be separated by at least seven days of dry weather (less than a total of 0.1 inches). A suitable amount of time must be provided between sampling efforts to allow build-up of contaminants and to provide data needed to better understand contaminant build-up rates.

**1.c, page E-15** This section requires further clarification. If this section is referring to stream or river receiving water monitoring, the start of monitoring needs to rely on the increasing flows in

response to the rainfall. It is unclear how it would apply to receiving waters defined as ocean waters, bays or estuaries. Monitoring of ocean, bay, or estuary receiving waters should normally be initiated in response to declining salinity or increasing turbidity in surface waters. Ultimately, initiation of monitoring should depend upon the sampling objectives that would be developed as part of a special study rather than a specification.

#### VIII. STORM WATER OUTFALL BASED MONITORING, Page E-17

Requirements under this section of the Monitoring and Reporting Plan will lead to an astronomical increase in monitoring costs and will completely overwhelm toxicity labs that are located in Southern California and capable of performing this type of work. Utilization of this sampling strategy should be applied extremely judiciously and only for the purpose of tracking critical sources of contaminants.

#### VIII. STORM WATER OUTFALL BASED MONITORING, Page E-18

#### C. Sampling Methods.

This section allows for samples to be collected during the first 24 hours of discharge. By not sampling all runoff from a given storm event, this approach introduces a bias into load estimates and the data cannot be compared to other whole storm composites. We realize that this is to ease the sampling effort and help address issues for constituents with short holding times. When monitoring is cut off at 24 hours for a lengthy storm, data should be flagged to indicate that it should not be used for correlative purposes. In the same manner, the data should not be considered for inclusion in the National Stormwater Quality Database that is used to generate Municipal Action Levels (MALs).

#### XI. REGIONAL STUDIES, Page E-25

#### A. Pyrethroid Insecticides Study Requirements

This sediment study requirement should be at least delayed if not eliminated. Intercalibration studies remain to be performed for pyrethroid pesticides. An initial round of testing was conducted under the SMC laboratory intercalibration program but participation was limited and the group detection limits were high (approximately 10 ng/L rather than 1 ng/L limits needed for water testing). The results of that program were not promising. While we recognize that the SMC testing was conducted for analyses in water rather than sediment, there is still concern regarding the accuracy and precision of this relatively new analytical procedure when comparing laboratories. A successful laboratory intercalibration study is necessary for both water and sediment before a program of this magnitude should be implemented.

This program is supposed to incorporate sediment collection in major rivers but does not appear to address other receiving waters (ocean, bays and estuaries) that may even be more of a concern. Since many of the waterways are constructed of concrete it should be specified that this study is not intended to include sediment that may temporarily accumulate on the concrete bottoms.

The incorporation of toxicity testing will make this program even more expensive. Determining where toxicity in the sediments is associated with pyrethroid pesticides will require Phase I/II TIEs using a variety of manipulations with esterase, PBO, and temperature adjustments. Although a study of this magnitude is scientifically of interest, initial screening may more appropriately rely on sediment measurements of pyrethroids and TOC. The data would then be normalized to the TOC and compared against previously established  $LC_{50}$ s for TOC normalized concentrations of pyrethroids. These data should be sufficient to further identify watersheds where these compounds have the potential to produce toxicity. Use of these existing TOC normalized  $LC_{50}$ s to calculate expected acute Toxicity Units (TU_a) should be sufficient to trigger actions to reduce/eliminate pyrethroids in urban watersheds. If necessary, toxicity testing could be a followup action at sites where the chemistry is not sufficient to be confident of a toxic response.

Through the work of the California Stormwater Quality Association (CASQA) and the California Department of Pesticide Regulation (DPR) new requirements became effective on July 19 that will modify the way that professional applicators apply pyrethroid insecticides around buildings. In parallel, new labeling of pyrethroid products were implemented voluntarily by manufacturers at DPR's request. These include special labels for the most persistent pyrethroid, bifenthrin, which will provide further water quality protection. The combination of these efforts is expected to reduce treatments of outdoor impervious surfaces, thus reducing the quantity of pyrethroids that can be washed directly into gutters and storm drains when it rains or when water like irrigation overflow runs across treated surfaces. Together, it has been predicted that the regulations and the new labeling will reduce the amount of pyrethroid insecticides in urban stormwater runoff by 80-90%. We would suggest allowing some time for these actions to take impact before considering full implementation of the pyrethroid survey with both chemistry and toxicity testing.

#### XII. AQUATIC TOXICITY MONITORING METHODS, Page E-28 to E-29

This element of the program has not been well evaluated from either the practical perspective of conducting this work or from the incredible costs that would result from the program. During the initial screening phase, bioassay testing alone could run \$4,000 to \$5,000 per site. If TIEs are triggered, costs could run another \$5,000. Many of the aquatic toxicity monitoring requirements appear to be extracted from testing requirements and procedures used for wastewater discharges and do not recognize the problems associated with toxicity testing in stormwater.

#### C. Sample volumes

Section C indicates suggests a minimum of 5 gallons of water be collected for baseline studies and TIE studies. The base requirement to perform the initial chronic screening will be more like 6 gallons assuming that the acute testing requirements can be fulfilled by the first portion of the chronic tests. If that is not the case, 7-8 gallons would be necessary to fulfill both requirements. In order to accommodate a TIE during this screening phase, another 5 gallons of water would be necessary.

With the need for increasing volumes of stormwater comes the need for more field crews to be available to rapidly change out bottles as each fills. The highest volume composite containers commonly used are 20-L media bottles which roughly correspond to a 5 gallon container. With two bottles needed for bioassay testing another 1 to 2 bottles for chemical testing and QAQC, it becomes more challenging to collect high quality, representative samples. To meet this capacity requirement, the stormwater stations must be set at a conservative sampling rate that allows for a successful event even with storm volumes coming in below predictions so it would not be unusual to end up with 5-6 20-L bottles or more for a single event. These bottles will then require thorough mixing to make sure that each container represents a full storm composite. After that process subsamples would need to be taken for delivery to the labs.

Laboratory capacity for bioassay testing is already stressed at the beginning of the storm season when all permits are targeting the first event. Adding the quantity of toxicity tests required in the different elements specified in Attachment E of Tentative Order will simply not be feasible.

#### F. Acute Toxicity

We support use of 100% samples as a sound method for toxicity screening. This approach should be considered as the primary test with full dilution testing being the first response to exceedences of the targets

More flexibility needs to be added for alternative species to be used. Selection of test species should consider existing knowledge regarding pollutants of concern, selective sensitivity of the various test species and availability. The Pacific mysid is a good test species but is wild caught and often unavailable when needed. Other mysids such has Acanthomysis are cultured so they are more readily available and also can be tested in waters where the salinity must be adjusted with sea salts.

#### G. Chronic Toxicity, Page E-30

The chronic screening process is specified to be conducted over three events **y**et testing of wet weather discharges using bioassay tests is only scheduled for 2 events per year. This screening would not be complete until midway into year 2. This would result in three full rounds of three-species screening tests followed by one round using the species selected as the most sensitive. The three species screening studies would then start again at the start of the third year.

This type of process was designed for the wastewater industry and is not suitable for routine stormwater monitoring. The Regional Board should consult with SCCWRP and other stormwater programs throughout the State to determine an appropriate suite of bioassay tests based upon testing conducted over the past 20 years and knowledge of emerging contaminants.

#### G.4 Chronic Toxicity Identification Evaluation

A successful TIE requires sufficient toxicity present in the sample to enable dissection of the source of toxicity. Attachment E of the Tentative Order requires implementation of a TIE when effluent exceeds 1.0 TU_c which is defined as 100/NOEC. In the 1991 Technical Support Document (TSD), EPA actually recommends use of the  $EC_{25}/IC_{25}$  to assess presence of chronic toxicity (100/IC₂₅). This helps avoids marginal hits and triggering of expensive, inappropriate TIEs with little hope of a successful endpoint.

Although chronic measurements are considered in triggering a TIE, the actual TIE process typically uses acute measures. Therefore acute measurements ( $LC_{50}$ ) should also be considered when making the decision to move forward with a TIE. As a general rule, at least one TUa above the detection limit is desirable to allow for a successful TIE while avoiding the high costs of false starts and disappearing toxicity. Some stormwater programs have therefore been authorized to use values of 2 TU_a for tests using full dilution series (e.g. *Ceriodaphnia* -water fleas) and 3 TU_a tests using brine to salt up to full strength sea water (e.g. the sea urchin fertilization test). These triggers have helped minimize implementation of TIEs without sufficient toxicity to expect definitive results.

#### XIV. STANDARD MONITORING AND REPORTING PROVISIONS

Β.

It should be noted that the SMC laboratory intercalibration studies have not included all tests required in the Tentative Order.

#### REFERENCES

Burton, G.A. Jr., and R. Pitt, Stormwater Effects Handbook: A Tool Box for Watershed Managers, Scientists, and Engineers. CRC Press, Inc., Boca Raton, FL. 911 pgs. 2002.

Guo, Qizhong, 2007 Effect of Particle Size on Difference between TSS and SSC Measurements. Proceedings of ASCE/EWRI World Environmental & Water Resources Congress May 15-19, 2007, Tampa, Florida

Gray, John R., G. Douglas Glysson, Lisa M. Turcios and Gregory E. Schwarz. 2000. Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data, USGS WRIR 00-4191

SMC Model Monitoring Technical Committee, 2004. Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California. August 2004, Technical Report #419

National Research Council 2008. Urban Stormwater Management in the United States. National Stormwater Quality Database, V3, February 3, 2008

Pitt, R., A. Maestre, and R. Morquecho. 2004. The National Stormwater Quality Database (NSQD, version 1.1). February 16, 2004, Dept. of Civil and Environmental Engineering, University of Alabama Tuscaloosa, AL 35487

# Cost Estimation and Environmental Impacts

## <u>Worksheet</u>

## Trash TMDL, Metals TMDL and Bacteria TMDL For the Los Angeles River

July 25, 2006

## **Background Information**

City:	SIGNAL HILL
Population (2005):	10,951
Number of Households (2005):	4,236
Total General Fund Budget (FY2005-06):	15, 970,000
Square Miles in City:	2.2
Square Miles in Watershed:	[.]
Percentage of Residential Land Uses in City:	35 %

# NPDES Budget: (Attachment U-4 of the NPDES Permit 2004-05)

Program Management	\$ 12,070
Public Information	13,000
Industrial/Commercial Inspections	23,950
Development Planning	7,600
Construction Inspections	8,535
Public Agency Activities	460, 520
IC/ID Program	<u> </u>
Total NPDES Budget:	\$ 534,475
"Per Household" Expenditures FY2004-05:	5_126.17

Note: The Regional Board estimates that the average City in Los Angeles County was investing \$18 per household in NPDES Compliance (2005 estimate)

Cost Estimation and Environmental Impacts Worksheet Page 2 of 19

## <u>Part I</u>

# Calculation of the Costs of Compliance with Trash, Metals and Bacteria TMDL

## A. Cost of Studies

The Trash TMDL will require cities to monitor the effectiveness of their programs annually. It is difficult to estimate the costs of BMP compliance.

The Metals TMDL requires that the cities complete several special studies, including water quality monitoring.

## 1. Water Quality Monitoring

The TMDL will require additional monitoring. Recent cost estimates for the Los Angeles River Metals TMDL (prepared by the TMDL Public Works Officials) indicates that \$1,290,000 will be necessary in one-time costs to set up monitoring equipment and \$983,000 will be required annually for water quality laboratory analysis.

Set Up Monitoring Costs = \$1,290,000 Annual Monitoring Costs = \$983,000 x 5 years = \$4,915,000

Cost allocation formula: The cities have examined various cost allocation formulas for funding the monitoring and special studies. For purposes of this review we have divided the costs by the number of local agencies involved in the TMDL, each paying equal shares. The local agencies include Los Angeles County, Caltrans and 43 cities, for a total of 45 entities.

A.2. Monitoring Costs "per city" = (\$109.222)

## 3. Additional Studies

The Metals TMDL lists a number of additional studies. The LA River Metals TMDL Public Works Officials have recommended that four additional studies be completed, including the participation in a Copper Site Specific Objective study. The Southern California Coastal Water Research Project and Tetra Tech, Inc., developed a detailed work plan in December of 2004. The cities should anticipate \$1.2 million in study costs.

The second study would be paired measurements of atmospheric deposition. The costs are estimated at \$590,000. The third study would be storm flow sampling, with costs estimated at \$530,000. The fourth study would review the effectiveness of Best Management Practices. This study is estimated to cost \$833,000 overall.

Cost Estimation and Environmental Impacts Worksheet Page 3 of 19

## Study Costs Per City

Copper SSO	\$26,666
Atmospheric Deposition	\$13,111
Storm Flow Sampling	\$11,777
BMP Effectiveness	\$18,511

A.3 – Voluntary Study Costs "per city" = \$70,065

Implementation Plan - Non-Structural Programs

The Metals TMDL anticipated that cities could comply with 20% of the numeric waste load reductions by implementing the non-structural programs below. The Trash TMDL requires that cities reduce trash in storm water with a combination of non-structural and structural programs.

# B. Street Sweeper Upgrades and Increases in Frequency of Sweeping

Both the Trash TMDL and the Metals TMDL recommend the use of upgraded dryvacuum assisted sweepers. As a benchmark cities should report estimated costs above the NPDES Street Sweeping

NPDES Reported Street Sweeping Costs: 453,580Estimated Additional Costs: 470,000

C. Increased Catch Basin Cleaning Costs/ Trash TMDL Compliance Measures

The Trash TMDL requires additional Catch Basin Cleaning, based on Priority areas:

Cities can estimate full-capture compliance with catch basis excluders/inserts. Number of Catch Basins x \$2,100 =

## D. Dry Weather Diversions

Cities may not be able to utilize dry-weather diversions, since the County Sanitation District is concerned about metals limits in their existing NPDES Permits. The Sanitation Districts' permits required their discharges to meet "end-of-pipe" California Toxics Rule metals standards in the receiving waters at their treatment plants. Cities should anticipate some type of metals removal process, in order to not impact the Sanitation Districts NPDES Permits. Cost Estimation and Environmental Impacts Worksheet Page 4 of 19

Cities estimating dry-weather diversions costs should anticipate the costs of storage tanks or holding ponds, for discharge in "off-peak" hours. Cities may also want to review sewer capacity issues. For comparison purposes, the cost of the dry-weather diversion plan for the Santa Monica Bay Beaches TMDL is estimated at \$26 million for 27 diversions. These costs do not include storage or retention facilities construction.

## Implementation/ Capital Improvements

The Metals TMDL anticipated the construction of sand filters in 20% of the urbanized watershed. Using your city's total square mileage in the watershed on page one, please perform the following calculations:

## Sand Filter Construction Costs

Total Square Miles in Watershed  $\underline{1 \cdot 1}$  x 640 Acres per Square Mile = total Acres in

Watershed 704-

Total acres in Watershed 704, x.0.20 = 141 Acres for Sand Filters

Acres for Sand Filters 14-1 /50 acres per filter = Total Filters 3

Number of Sand Filters 3 x \$4.5 million * = Total Construction Costs of Sand Filters 3 3.000

## Sand Filter Land Acquisition Costs (Residential)

0.7 acres = 30,492 square feet / 6,200 square feet = 5 Single-Family Homes

Number of Sand Filters <u>3</u> x 5 Single Family Homes = <u>15</u> Total Homes Necessary

Total Homes Necessary ______ x Average April Home Costs (See Exhibit A)

\$_675,000 = Estimated Land Acquisition Costs \$_10,125,000

## E. Infiltration Trenches

The TMDL anticipates the installation of infiltration trenches in 20% of the urbanized watershed. Using the total square mileage of watershed on page one, please perform the following calculations:

# **RB-AR4649**

Cost Estimation and Environmental Impacts Worksheet Page 5 of 19

## Infiltration Trench Construction Costs

Total Square Miles in Watershed  $1 \cdot 1$  x 640 acres per square mile = Total Acres in

Watershed 704

Total Acres in Watershed 704 x 0.20 = 141 Acres for Infiltration

Acres for Infiltration Trenches 141 / 5 acres per Trench = Number of Trenches

28

Number of Infiltration Trenches 28 x \$372,000 * = Total

Construction Costs of Infiltration Trenches \$_10, 416,000

Infiltration Trench Land Acquisition Costs (Residential)

0.07 acres = 3,049 square feet / 6,200 square feet = 1 Single-Family Homes

Number of Infiltration Trenches 28 x 1 Single-Family Homes =

28 Total Homes Necessary

Total Homes Necessary 2-2 x Average April Home Costs (See Exhibit A)

\$ 675,000 = Estimated Land Acquisition \$ 18,900,000

#### F. <u>Relocation Assistance</u>

The Uniform Relocation Assistance and Real Property Acquisition Polices Act of 1970 (URA) requires relocation assistance for homeowners when local government agencies purchase a home for Federal projects and for which federal funds are used. Similar State and local relocation assistance rules apply for non-federal funded projects. These payments include actual reasonable moving expenses or fixed moving expenses, purchase and rental assistance. Some cities pay greater benefits, however this analysis relies on the minimum payments required for owner-occupied single-family homes. This analysis relies on the \$22,500 housing assistance payment contained in State law, which should be considered low.

Total Number of Homes Required

Filters 3 x \$22,500 = \$ 67,500

Trenches 28 x  $$22,500 = $ _630,000$ 

Cost Estimation and Environmental Impacts Worksheet Page 6 of 19

Total Estimated Minimum Relocation Assistance \$_697, 500

## G. Program Costs

The Regional Board provided no cost increases, however we believe that additional technical staff will be necessary to oversee the studies, non-structural programs and capital improvement program necessary. Costs range from \$90,000 to \$120,000 annually.

#### H. Operations and Maintenance Costs

The infiltration trenches and sand filters will require additional maintenance costs during and after storm events. Public Works crews will be required to clear debris and prevent flooding to surrounding properties. We average 32 rainfall days in the watershed annually. Caltrans peer reviewed annual maintenance costs were \$2,910 per Austin Sand Filters. Annual costs for infiltration trenches were estimated at \$2,660 per trench.

Number of Filters 3 x 2,910 = Annual O & M Costs 2,730

Number of Trenches 28 x \$2,660 = Annual O & M Costs 74.480

Total O & M \$ 83, 210

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## Summary of TMDL Costs

A. Cost of Studies – One Time Estuary Study (Reach 1 Cities) Water Quality Monitoring (set up) Annual Monitoring (Five Years) Copper SSO Atmospheric Deposition Storm Flow Sampling BMP Effectiveness	\$100,000 \$22,291 \$70,625 \$20,750 \$12,290 \$11,041 \$17,354
Total Studies	\$254,351
B. Street Sweeping Upgrades (Annual)	\$ 53,580
C. Increased Catch Basin Cleaning (Annual)	\$ <u> </u>
Insert/Excluder Costs	SN/A
D. Dry Weather Diversions/ Compliance	Unavailable
E. Sand-Filter Costs Construction Costs	5 13,500,000
Land Acquisition Costs	\$ 10,125,000
Total Costs	5 23,625,000
F. Infiltration Trench Costs Construction Costs	5_10,416,000
Land Acquisition Costs	\$ 18,900,000
Total Costs	\$ 29,316,000
G. Minimum Relocation Assistance	\$
H. Program Costs	\$
I. Maintenance Costs (Annual)	\$ <u>83,210</u>

Total Number of Single-Family Homes Acquired for Implementation of the TMDLs 43

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### <u>Part II</u>

## Financing the TMDL Program

This worksheet is divided into two options for those cities that do not have sufficient General Fund revenues or reserves to implement the TMDL program costs. Cities will be asked to determine the size of a municipal bond issue. The worksheet will assist you calculating the annual debt service to implement the TMDL program costs. The first bond will be required in 2007 (30% of the Total Costs), with a second bond required in 2012 (40% of the Total Costs). The remaining bond would be financed in 2020 (30% of the Total Costs).

The annual debt service is used to calculate the potential size of a Utility Tax to fund the bonds or the size of budget reductions or eliminations, if special storm water taxes are not approved by the 2/3rds requirement.

#### Bond Input

Total Funding Requirement (Costs of TMDL Program) - \$	
Inflation Rate – Assumed 3% annual	
Bond Start Date – 2007 30% x Total Funding Required \$ = \$	
Bond Start Date – 2012 40% x Total Funding Required \$=\$	

Bond Start Date – 2020 30% x Total Funding Required\$_____=\$_____

The Total Funding Amount and the 1st, 2nd and 3rd Financing Amounts should be placed into Section A. Bond Input, of Table 1 of the Stanley R. Hoffman Associates Debt Service Model.

#### **Operations and Maintenance**

(z.)

Initial Study Costs - S_____

Annual O&M \$_____

These costs should be placed into Section B, Operations & Maintenance, Table 1 of the Stanley R. Hoffman Associates Debt Service Model.

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## **Annual Debt Service**

The Debt Service Model will provide you with the annual debt service for the three bond issues.

Annual Debt Service 2007 - \$_____

Annual Debt Service 2012 -\$_____

Annual Debt Service 2020 - \$_____

Maximum Debt Service (add all three above) - \$_____

# Utility Tax Necessary to Support TMDL Program Debt Service

Please calculate the annual revenues that 1% of your total Utility Tax Revenues would generate.

Annual Utility Tax Revenues \$_____x 0.1 = \$_____

Maximum Debt Service \$_____/Annual Utility Tax Revenues

\$_____% Utility Tax to Support TMDL Program

# Budget Reductions Necessary to Support TMDL Program Debt Service

It is necessary for cities to consider budget reductions, should the special taxes fail to gain the necessary 2/3rd voter approval. The worksheet focuses on "across the board" budget cuts in 2007, in order to gauge the magnitude of the cuts.

General Fund Budget (FY2006-07) \$_____ / Annual Debt Service

\$ _____ = Percent Budget Reductions _____%

Cities may wish to estimate the budget reductions in 2012 and 2020.

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## <u>Part III</u>

## **Budget Reductions/ Environmental Impacts**

Cities should use the following checklist to determine how "across the board" budget reductions would reduce or eliminate existing public services and the resulting environmental impacts. Cities can calculate the budget reductions beginning in 2007 and examine the cumulative impacts in 2020.

2007 – Percentage Budget Reductions = ____%

Police/ Sheriff Services

Public Safety Budget (FY2006-07) = \$_____

Reduction in 2007 = (FY2006-07 Public Safety Budget) S______X

Budget Reduction = \$_____ Total Public Safety Budget Reduction

Likely Environmental Impacts from Budget Reductions -

Reductions in daytime and nighttime patrol shifts, increases in crime rates (assaults, vandalism, graffiti), slower response time to emergency calls, officer safety issues due to reduced patrol sizes, less crimes solved, increases in vehicular speeding and increase in the physical deterioration of the community.

## Fire/ Paramedic Services

Fire/Paramedic Services Budget (FY2006-07) = \$_____

Reduction in 2007 = (FY2006-07 Fire/Paramedic Budget) \$_____ x ____% Budget Reduction = \$_____ Total Fire/Paramedic Reduction

## Likely Environmental Impacts from Budget Reductions -

Reductions in Fire/Paramedic services will result in delayed response times to medical and fire emergencies, increased likelihood of serious injuries or death, increased property losses from fire.

Public Works - Parks/Facilities Maintenance

Parks and Facilities Maintenance Budget (FY2006-07) = \$_____

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Budget Reductions (FY2007-08) = \$_____

Likely Environmental Impacts from Budget Reductions -

Reductions or elimination of park, median and city building maintenance, tree trimming, resulting in deterioration of quality of life in community, impacts on property values, increased private property damage and injuries (from falling tree limbs).

Public Works - Street, Sidewalk and Traffic Signal Maintenance

Street, Sidewalk and Traffic Signal Maintenance Budget (FY2006-07) = \$_____

Budget Reductions (FY2006-07) = \$_____

Likely Environmental Impacts from Budget Reductions -

Reductions in Public Works staffing for street, sidewalks and signal maintenance programs, resulting in additional street deterioration, increased potholes, trip and fall hazards and inoperative traffic signals, increase in injuries from trip and falls hazards, increase in traffic accidents due to poorly maintained streets, increase in injuries and death from traffic accidents.

Graffiti Removal Program

Graffiti Removal Budget (FY2006-07) = \$_____

Budget Reductions (FY2006-07) = \$_____

Likely Environmental Impacts -

Reductions in Graffiti Removal programs will result in slower response times to graffiti removal requests, additional graffiti, decrease in the quality of like and property values, increase in gang activity, with an increase of injury and death.

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## <u>Methodology</u>

## Cost Estimation/Environmental Impacts from the Los Angeles River TMDLs

## Background

The Los Angeles Regional Water Quality Control Board is under a court order to complete a supplemental environmental review of the impacts of the Trash TMDL on Los Angeles River. The Regional Board's environmental review should be similar to environmental impact reports prepared on major projects, like general plan updates or specific plans.

The Regional Board staff has not adequately discussed the environmental impacts of the TMDL program on municipal budgets, the likely local government program reductions and the resulting impacts on the quality of life.

Determining the costs to local government of the TMDL program has been complicated by the evolving nature of the program and its requirements. The Trash TMDL for the Los Angeles River was adopted in 2001. The Metals TMDL was adopted in 2005 and the Bacteria TMDL is anticipated for adoption in 2007. The impacts of these TMDLs are bccoming increasingly known, as subsequent TMDLs are adopted.

There are several known cost benchmarks, including the construction of a series of sand filters and infiltration trenches by Caltrans (see the Retrofit BMP Program). Some cities have completed or are underway with the construction of capital improvements for the Trash TMDL (trash nets, vortex-separation units, catch basin inserts, etc). The County and the City of Los Angeles have constructed several dry-weather diversions.

The Regional Board suggested a broad implementation plan for the Trash TMDL, which made it difficult for citics to estimate compliance costs. The Board extended full compliance to those local agencies that constructed vortex-separation units. However, these units have resulted in the generation of bacteria, which is subject to a later TMDL. The County demolished a unit in Culver City due to noise impacts compliants.

With the adoption of the Metals TMDL, the Regional Board began to suggest the likely TMDL compliance measures – including having cities construct sand filters and infiltration trenches. The City of Los Angeles entered into Memorandum of Understanding to complete the Bacteria TMDL on the Los Angeles River. The exact compliance measures have not yet been determined. However, the Board is proposing bacterial treatment facilities for runoff into the Ballona Creek, under the Bacteria TMDL for the Ballona Creek.

The State Water Board convened a panel of national experts in storm water to study whether it was feasible and practical to apply numeric effluent limits to urban runoff. The panel has concluded that numeric limits should not be applied to urban runoff, due to Cost Estimation and Environmental Impacts Worksheet Page 13 of 19

a series of issues, including the high variability of storm flows in terms of duration and magnitude. These factors make is difficult to design treatment devices, since civil engineers require a "design storm" to appropriately size the planned treatment devices. The panel felt that it was unreasonable for local agencies to be held responsible for the largest storm events and that large events will have to bypass the treatment devices. The expert panel's recommendations have not been reflected in either the Trash or Metals TMDLs

The expert panel also suggested that urban runoff will require the construction of "treatment trains." This term refers to the construction of a series of devices, each designed to deal with a specific pollutant. Typical treatment trains construct gross solids and debris removal first (Trash TMDL). The second stage is typically metals removal by sand filters or infiltration trenches (Metals TMDL). The Caltrans study revealed that sand filters do not effectively deal with the dissolved fraction of metals and do not meet the California Toxics Rule (CTR) limits. Unless there are changes in the application of CTR, cities may need to construct micro-filtration or reverse osmosis units to reach the CTR limits. The third stage involves bacteria treatments, through the chlorination/dechlorination process or treatment with ultra-violet light or ozone.

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## Part I - Engineering and Planning Assumptions

## Design Storm

These worksheets are based on data compiled from U.S. Environmental Protection Agency guidebooks and the real costs from a recent Caltrans pilot program that installed sand filters and infiltration trenches in Los Angeles County. In the definition of a full capture device, the draft Trash TMDL for the Los Angeles River specifies a design treatment capacity of not less than the peak flow rate Q resulting from a one-year, onehour storm in the sub-drainage area. The Metals TMDL for the Los Angeles River has no design storm. However, in the Implementation Section of the TMDL, Regional Board staff used cost estimates based on treating 0.5 inches of runoff while recognizing that Caltrans designed its sand filters and infiltrate trenches in its BMP Retrofit Pilot Program to handle up to one inch of runoff. The general SUSMP design storm for the urbanized area of the watershed is 0.75 inches.

Based on the premise that infiltration trenches and sand filters could be used to address the requirements of both the Trash TMDL and the Metals TMDL, and an assumption that cities would be required to exceed SUSMP requirements in order to comply with the TMDLs, the cost estimator is based on capturing and treating a one-inch rainfall storm event. The cost estimates include construction of the sand filters and infiltration trenches plus the necessary storage capacity to handle runoff from a one-inch storm event.

Implementation Schedules

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Local government will be dealing with three time schedules mandated by the TMDLs. The Trash TMDL will require that cities fully comply in 10 years. The Metals TMDL requires compliance over a 22 period. This worksheet assumes that the cities will need to comply with the Bacteria TMDL during the same 22-year time period as the Metals TMDL. The chart below presents a comparison of the time schedules.

Trash TMDL Schedule	<u>Metals TMDL Schedule</u>

10% by 2008 20% by 2009 30% by 2010 40% by 2011 50% by 2012 60% by 2013 70% by 2014 80% by 2015 90% by 2016 100% by 2017

50% dry weather/ 25% wet weather

2020 – 75% dry weather/ 2024 – 100% dry weather/ 50% wet weather 2028 – 100% wet weather Cost Estimation and Environmental Impacts Worksheet Page 15 of 19

# Compliance with Non-Structural Programs and Capital Improvements

The Trash TMDL provided the cities with a range of options from non-structural programs (additional street sweeping and catch basin cleaning) to structural programs (catch basin inserts & excluders, trash nets, vortex separators, etc.). The Metals TMDL estimated that cities would rely upon non-structural programs in 30% of the watershed, install infiltration trenches in 20% of the watershed, sand filters in 20% of the watershed and develop Integrated Regional Water Plans (IRWP) for the remaining 30% of the watershed. The Board did not provide cost estimates for the IRWP portion of the implementation plan. Dry-weather implementation costs were also not provided.

For purposes of this study we have assumed that infiltration trenches and sand filters will be installed in residential neighborhoods. The Regional Board supplied land use data that indicates that 52.05% of the watershed is residential. The Regional Board also estimated that residential areas account for 59% to 71.5% of the metals loads to the Los Angeles River. We believe that a high number of devices will be constructed in residential neighborhoods, due to the predominance of this land use in the watershed and the Regional Board's reporting on metal loads.

The study uses the average single-family home price as the default value. We have estimated land acquisition costs based on construction of sand filters and infiltration trenches in residential neighborhoods, since monthly pricing data is readily available on the average single-family home. It is recognized that some sand filters and infiltration trenches will be installed in multi-family neighborhoods. However, the "per lot" property values in these neighborhoods are generally higher than single-family "per lot" value, due to increased density. Cities with less than 40% residential land uses may wish to adjust the worksheet to install sand filters and infiltration trenches in industrial and commercial areas, as well as supply local property acquisition costs.

## Average Residential Lot Sizes

We have assumed average residential lot sizes of 6,200 square feet based on GIS information on the watershed. Some cities may have lower average lot sizes and the worksheets can be adjusted for this information.

## Sand Filter Assumptions

Neither the Metals TMDL, nor the Trash TMDLs contain specific recommendations on sand filter sizes and the size of drainage tributary areas. However, the TMDL for the San Gabriel River anticipated the construction of Austin sand filters to serve 50-acre drainage areas. We believe that this is a reasonable assumption for this study as well.

The per acre Adjusted Caltrans Cost Estimate is from Section 7.4.2 of the San Gabriel River Metals and Selenium TMDL staff report based on the installation of Austin sand filters, designed to capture one-inch rain events. This design is greater than the SUSMP requirement, but less than the open-ended Los Angeles River Metals TMDL requirement Cost Estimation and Environmental Impacts Worksheet Page 16 of 19

to design devices to comply with water quality objectives for any sized storm. This construction cost was subjected to "peer review" during the Caltrans BMP Pilot Retrofit Program in January 2004. There may be some savings if projects are grouped and constructed together.

## Sand Filter Retention Areas

The Metals and Trash TMDLs do not discuss the appropriate size of the retention areas, based on the requirements that all rain events be planned for. This cost estimate relies upon the "Preliminary Data Summary of the Urban Storm Water Best Management Practices – EPA-821-R-99-012, August 1999) in order to correctly size the retention area for a 50-acre retention facility. EPA assumes that 35% of the watershed is impervious.

However, analysis of data in the model used to simulate wet-weather metals loading from the Los Angeles River watershed indicates that the average imperviousness of the non-forest parts of the watershed averages 45%. Highly urbanized cities in the watershed may be 70% impervious surface. We have assumed 45% imperviousness for this review. Table 6-9 of the EPA report assumes the land required for a retention basin is 2%-3% of the impervious area in the drainage area. Using the 3% figure, the land required for a retention basin to serve 50-acres is 0.7 acres. We assume the 3% based on the requirement to have space for access and maintenance. Cost Estimation and Environmental Impacts Worksheet Page 17 of 19

#### Infiltration Trench Assumptions

As with the sand filters, neither the Trash nor the Metals TMDL provides much direction on the size of infiltration trenches or the size of their tributary drainage areas. The Metals TMDL for the San Gabriel River anticipates the construction of infiltration trenches to serve 5-acre drainage areas. We believe this is a reasonable assumption for this study as well.

The per acre Adjusted Caltrans Estimate is from Section 7.4.2 of the San Gabriel River Metals and Selenium TMDL staff report and is based on one inch storm events. This design number is greater than the SUSMP requirement, but less than the Los Angeles River TMDL requirement to comply with water quality objectives for any sized storm event. This construction cost number was "peer reviewed" during the Caltrans BMP Pilot Retrofit Program in January of 2004. There may be costs savings if projects are grouped and constructed together. However, these costs savings may be negated by the increase in construction costs, since the Caltrans pilot projects were constructed for smaller facilities, instead of larger and more complex subwatersheds.

Neither the Trash nor Metals TMDL discusses the appropriate size of the retention areas, based on the requirement that all rain events be planned for. This cost estimate relies upon the "Preliminary Data Summary of the Urban Storm Water Best Management Practices – EPA-821-R-99-012, August 1999) in order to correctly size the retention areas for a 5-acre retention facility. EPA assumes that 35% of the average urban watershed is impervious. However, analysis of the data in the model used by the Regional Board to simulate wet-weather metals loading from the San Gabriel River watershed indicates that the average imperviousness of the non-forest part of the watershed is 45%. Table 9-6 of the EPA report assumes the land required for an infiltration trench and retention basin is 2%-3% of the impervious area in the drainage. We suggest using a 3% factor to allow for access and maintenance areas, as well as variable infiltration rates due to soils in a subwatershed. At 3%, the land required for infiltration trenches and equalization basins to capture and slowly release large storms to serve a 5-acre subwatershed that is 45% impervious would be .07 acres.

The analysis relates to locating infiltration trenches in single-family residential neighborhoods. It is reasonable to assume that a significant portion of infiltration trenches will be located in residential neighborhoods, since the TMDL assigns high metals loads to these areas. Single-family homes are also more cost-effective to purchase, as compared to multi-family and commercial uses, yielding more land per costs for the trenches. We have assumed average residential lots of 5,000 square feet in size.

#### Bacteria Treatment

It is anticipated that the Bacteria TMDL will require structural treatment or diversion of urban runoff in order to meet the REC-1 and REC-2 objectives in the Basin Plan for the Los Angeles River. We have relied upon installing bacteria treatment devices on the sand filters, in order to understand the magnitude of the costs.

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#### Part II - Financing Assumptions

Cities will have to determine if they have sufficient General Fund reserves to fund the TMDL Program. Two basic financing options are included in this worksheet in case General Fund revenues or reserves are not sufficient. The first option revolves around the passage of voter approved special taxes to implement the new requirements. The second option involves reduction in existing local government budgets to fund the TMDL program.

Storm water taxes and fees must comply with Proposition 13, Proposition 218 and case law. The most recent case on storm water fees is *Howard Jarvis Taxpayers Association v. the City of Salinas*. The *Salinas* case affirmed the requirement that storm water fees be subjected to voter approval as a 2/3rds affirmative vote, when the City of Salinas added a storm water fee on their municipal services bill with a vote of the City Council.

Although there are several taxes that cities could consider, including parcel taxes and benefit assessments, this study examines funding storm water programs through the adoption of a utility tax. For watershed cities that have utility taxes, completion of the worksheet will be much easier.

For cities without sufficient General Fund Reserves, we have assumed that the cities will fund the TMDL program through the issuance of municipal bonds. These bonds would be phased in order to anticipate the requirements of the TMDL implementation schedules. Phasing of bonds will assist cities in planning for capital improvements, which require time for engineering design, purchasing property, bidding and construction.

We have assumed that cities will require 30% of the total funds beginning in Year One of the program (assume 2007 start date). This assumption is supported by the TMDL schedules, which require 50% compliance with the Trash TMDL by 2012 and compliance with 50% of the dry-weather and 25% of the wet-weather Metals TMDL limits by 2012.

We have assumed that the cities will need to finance a second bond, another 40% of the program costs by 2012, since cities must be in full compliance with the Trash TMDL by 2017 and 75% of the dry-weather requirement in the Metals TMDL by 2020. The Metals TMDL schedule becomes very aggressive in 2024 – requiring that cities meet 100% of the dry weather and 50% of the wet weather requirements. Cities must be in full compliance by 2028. We anticipate that the cities will require that the remaining 30% of the financing he in place by 2020.

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# Part III - Environmental Impacts from Reduced/Eliminated Services

Cities should be careful to translate budget reductions into direct environmental impacts to their community. The worksheet contains samples of the environmental impacts – such has increased vandalism or graffiti from reductions in patrol/sheriff services. Cities may want to expand the impacts to community services, library, senior center, child-care and other programs supported by General Fund revenues.

Statement before the Los Angeles

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Regional Water Quality Control Board

NPDES Permit Workshop - November 10, 2011

By

Steve Myrter, Director of Public Works

City of Signal Hill

The U.S. EPA recently adopted principals for the restoration of the nation's urban water bodies in the Urban Waters Federal Partnership program. A core guiding principle of EPA is to "be open and honest, and listening to the communities…recognize their values and seek to understand environmental issues through their eyes. We will work from the bottom up rather than taking a top down, one-size-fits-all approach." The Regional Board is being asked by your staff to only issue a region wide MS4 permit and to deny the Los Angeles County Flood Control District, the Cities of Downey, Long Beach and Signal Hill, in other words, the agencies who filed separate ROWD's, their own applications for individual NPDES permits under the law. We urge you to reject this one-size-fits-all approach of your staff and embrace EPA's guiding principles.

Signal Hill's request for our individual permit is an opportunity for the Board to work with a small community that is taking seriously its responsibility to improve our local water quality and to address the unique circumstances confronting our community. Other cities have chosen to group together for their own reasons and we respect their decisions. We have chosen to apply for our individual MS4 permit for equally valid reasons and would hope that our decision is respected as well.

In June of 2006, Signal Hill submitted an individual ROWD/NPDES Permit application for permit coverage only for our respective jurisdiction. Our application explained how Signal Hill is located in the geographic middle and completely surrounded by the City of Long Beach on all sides. Runoff originates in the upland portions of Signal Hill and flows directly into the City of Long Beach, where our City is proposing to install water quality monitoring stations in order to characterize our runoff. It is important to note that the Board has issued two individual NPDES permits to the City of Long Beach beginning in 1999 and that your staff is recommending issuing a third permit to the City of Long Beach.

In response to our June 2006 ROWD application, Regional Board staff concluded in their July 12, 2006 letter that our ROWD/Permit application was "incomplete." Nowhere in the letter did the Executive Officer ever indicate that the Regional Board would refuse to issue an individual permit to Signal Hill. Instead, the Regional Board staff indicated the opposite, that the City was *"proposing some positive changes"* to our NPDES Permit, and that the Board Staff looked *"forward to working out these details with your Staff during the MS4 Permit Reapplication Process."* (see the July 12, 2006 letter)

The City responded in a timely manner on September 12, 2006 to each of the points raised in the Executive Officer's July 12th letter as to why Signal Hill's ROWD was consistent with the requirements of federal law and why the ROWD satisfied the requirements of federal regulations, including EPA's Interpretative Policy Memorandum. Signal Hill's letter concluded that the City looked forward to working with the Executive Officer to address all relevant issues necessary and looked forward to the issuance of the NPDES Permit for the City of Signal Hill.

Unfortunately, Signal Hill's letter was not responded to over the past five years. During this time, the City of Signal Hill has moved forward to implement new programs designed to insure compliance with our application for our individual NPDES Permit. Signal Hill has worked hard to implement our individual waste load allocation assigned by the Regional Board under the Los Angeles River Trash TMDL. We are pleased to report that our City is ahead of schedule at a 94% trash reduction rate, while the TMDL requires a 60% reduction rate this year.

Oil was discovered in Signal Hill in 1924 and this discovery ushered in several decades of heavy industry, including well drilling, with oil sumps, tank

farms and refining. These industries have left Signal Hill with a legacy of soil contamination and over 1,700 abandoned oil wells, including numerous leaking wells. Signal Hill formed its redevelopment agency in 1978 with the express intent of remediating these environmentally distressed properties. Since 1989, the Agency has re-abandoned over 92 wells and invested over \$15 million into soil remediation, ground water clean-up and oil well abandonment projects. Over one million barrels of oil are pumped annually in Signal Hill, creating unique issues for our community and the need for an individually tailored storm water programs. The City's historical legacy also dictates the need for an individual MS4 permit, in order to better tailor storm water programs for Signal Hill's unique industrial history and existing industries.

This unique industrial heritage and the problems associated with the City's petroleum and other heavy industries, led Signal Hill to apply for and receive its own stand-alone County Sanitation District. Although the Los Angeles County Sanitation Districts functions as a county-wide system for 77 municipalities, Signal Hill's Sanitation District #29 is a stand-alone entity, with its own board of directors, maintenance staff, budget, permits and fee structure. The application for our individual MS4 Permit is an example of the planning for that is necessary for the unique problems that confront our community.

Our City Council directed City staff to move ahead on a Storm Water Quality Master Plan, which will be a comprehensive plan for water quality in our community. Signal Hill has worked hard to improve water quality, including the installation of CDS units and 14 trash nets in the Hamilton Bowl. We have installed full capture devices in the majority of our 174 catch basins that drain into the Los Angeles River. We have also implemented SUSMP and LID requirements on dozens of developments, including state of the art infiltration devices on a concrete-batch-plant, which was recently studied by the National Academy of Sciences. We have moved forward implementing new programs, including additional inspections and have budgeted for the installation of two auto sampler monitoring stations this next year. The City is also designing a dryweather diversion in order to address dry-weather requirements for the LA River Metals and Bacteria TMDL.

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Issuing an individual permit to Signal Hill will not open up the flood gates to 88 ROWD's as suggested by your staff. Signal Hill's runoff is not co-mingled in some larger MS4 system. Issuing an individual NPDES Permit does not mean that the City of Signal Hill will halt its participation in important watershed and regional efforts to address water quality. Our City Manager has taken the lead in coordinating the 40 cities, Los Angeles County and Caltrans to complete the Special Studies on the Los Angeles River Metals TMDL. These special studies are now into their second of three planned study years, with a total investment of \$2.1 million from the 42 public agencies. We participated in the organization and administration of the coordinated monitoring plan and we participate the County's public education program.

Signal Hill is also leading a seven member group of cities in developing the Implementation Plan for the Los Cerritos Channel Metals TMDL, a TMDL adopted by the U.S. EPA in 2010. In addition, we are also participating in Jurisdictional Group One Group for the LA River Metals TMDL. Your staff is involved in all of these efforts. Your staff, as well as our neighboring cities, can attest that Signal Hill's is not only a willing participant in group planning efforts, but a leader of regional and sub-regional efforts to improve water quality.

The LAR Metals TMDL was adopted by the Regional Board in 2006 and assigned group waste load allocations to the Jurisdictional Groups. We commented to the Regional Board at the time that this requirement would have unintended consequences and would essentially make one city (or a small subset of cities) responsible for all of the cities in their Jurisdictional Group. This implementation scheme, combined with the current permit's requirement of "Joint and Several Liability," resulted in Signal Hill rethinking its participation in the larger system-wide permit.

The Regional Board staff has cited in the past what they believe are the relevant sections of the federal codes to argue that the Board has the discretion as the permitting authority to determine whether to issue the system-wide or jurisdiction-wide permit. This assertion is incorrect, since it is clear from a plain reading of the federal codes that cities have the express ability to submit individual applications in conjunction with other MS4 operators, or alternatively, submit for a **"distinct permit application which only covers discharges from the"** individual city system in question.

40 CFR Section 122.26(a)(5) reads as follows:

(iii) The operator of a discharge from a municipal separate storm sewer which is part of a large or medium municipal separate storm sewer system must:

- (A) Participate in a permit application (to be a permittee or to be copermittee) with one or more other operators of discharges from the large or medium municipal storm sewer system which covers all, or a portion of all, discharges from the municipal separate storm sewer system; (or)
- (B) <u>Submit a distinct permit application</u> which only covers discharges from the municipal separate storm sewers for which the operator is responsible.

Further, the federal codes make it clear that a city has the right to apply for and obtain their own individual NPDES Permit under Sections 122.26 and 122.333. The individual permit is a *"distinct permit application which only the discharges from the municipal storm water sewers for which the operator was responsible."* (Section 122.26(a)(3)(iii)(B). The federal codes are also clear that small cities, with populations of under 50,000 residents, have the right to be included in a system-wide permit, if they so choose. (Section 122.333)

We understand that the Regional Board intends to incorporate numeric limits from the various TMDLs into the upcoming permit. The Regional Board also intends to hold cities responsible for exceedances to water quality standards in permit language. We believe that these policies and permit language will result in a watershed of litigation and enforcement activity in the 2012 permit.

The Regional Board's joint and several liability permit language has already led to litigation in the region under the 2001 permit. For example, the NRDC and the Baykeeper are suing the County of Los Angeles for violations to water quality standards on the Los Angeles and San Gabriel Rivers based on monitoring station data. The County in turn has requested tolling agreements from 50 cities that are located upstream from the monitoring stations. The tolling agreements only place future County vs. Cities litigation in abeyance until the final outcome of this litigation. We believe this is the beginning of the "watershed of litigation" that many foresaw, where private parties are suing the cities and county, the county is suing the cities, and cities are suing other cities.

The Regional Board's policies have raised the issue of what approach should local governments follow in achieving compliance with water quality standards and permit requirements. Signal Hill does not choose to be included in the system-wide permit for a variety of reason, including the unfair grouped waste load allocations, the Regional Board's policy of holding one City accountable for all Cities (the Joint and Several Liability language in the permit) and the proposed incorporation of numeric limits from the various TMDLs into the upcoming permit, enforced by the receiving waters limitations requirement.

Signal Hill believes that we must monitor and characterize our stormwater and urban runoff in order to design programs that address our particular impairments. The "one-size fits all" approach of a system-wide permit breaks apart as it cannot adequately address the individual circumstances of Signal Hill. The characteristics of water quality vary based the mix of industrial, commercial and residential uses in our community, history of brownfield contamination, our proximity to major sources of airborne pollutants, the existing effort of our city to regulate runoff and the availability of storm water infrastructure to address water pollution, as well as other factors unique to Signal Hill.

Like the County of Los Angeles, which has applied to withdraw from their 2006 ROWD and now seeks an individual MS4 permit for the Los Angeles County Flood Control District, Signal Hill looks forward to working with you and the Flood Control District in a collaborative process during the upcoming Permit renewal process. Signal Hill looks forward to working with both the Regional Board and the City of Long Beach in designing and implementing our individual NPDES Permit.

Burhenn & Gest LLP

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WRITER'S DIRECT NUMBER (213) 629-8787 WRITER'S E-MAIL ADDRESS hgest@burhenngest.com

August 23, 2012

#### VIA E-MAIL AND U.S. MAIL

Mr. Ivar Ridgeway Los Angeles Regional Water Quality Control Board 320 W. 4th Street, Suite 200 Los Angeles, CA 90013

## Re: <u>Hearing on Proposed Order No. R4-2012-XXX, Draft NPDES</u> Permit for MS4 Discharges within the County of Los Angeles

Dear Mr. Ridgeway:

This letter is submitted on behalf of the County of Los Angeles ("County") and the Los Angeles County Flood Control District ("LACFCD") and responds to the Notice of Public Hearing dated June 6, 2012, Public Notice No. 12-022 ('Hearing Notice"), concerning the above referenced Draft Permit.

#### I. Objection to Time Deadlines and Procedures

The Regional Board released the Draft Permit, Fact Sheet, and attachments for public comment on June 6, 2012. This was the first time the County, LACFCD, or any other party was provided with the full Draft Permit and their attachments.

The Draft Permit is a highly complex document, over 120 pages in length. The Fact Sheet incorporated into the permit, along with the attachments, result in a total Permit of more than 500 pages.

The Hearing Notice requires that comments on the Draft Permit were to have been submitted by July 23, 2012. The County and LACFCD submitted timely comments by this deadline. Nevertheless, this notice did not provide the County or LACFCD sufficient time to respond to the hundreds of pages of Draft Permit, Fact Sheet, and attachments. This unrealistic deadline has created a

Mr. Ivar Ridgeway August 23, 2012 Page 2

process that is fundamentally unfair, a violation of the California Administrative Procedure Act ("APA"), and due process.

This unrealistic deadline, combined with the possibility that responses to comments and a revised tentative draft will not be issued until shortly before the hearing, will also result in an unnecessarily long and complex permit hearing, as the permittees, including the County and LACFCD, will be required to proceed on issues that might have been resolved prior to the hearing if the parties had been given an opportunity to do so.

Accordingly, the County and LACFCD object to the current manner of proceeding. The County and LACFCD request that Water Board staff issue responses to comments on the Tentative Draft as well as a new draft permit and hold a workshop and invite public comment on that draft. This will allow the permittees and the public to review staff's responses to comments made to date and to respond to any proposed revisions prepared by staff. It will also allow the permittees additional time to work with staff and interested parties in an attempt to resolve the outstanding issues that currently exist.

The County and LACFCD also request that there be adequate time for the permittees to analyze and respond to staff's responses to comments as well as any proposed changes in the draft permit. Therefore, we request that staff release their final comment responses and any proposed changes to the draft permit at least 21 days prior to the hearing or, if the process set forth above is not followed, at least 30 days prior to the hearing. This will allow permittees and other interested persons sufficient time to review the responses and changes to the draft permit to refine their presentations as appropriate.

## II. Administrative Record

The Hearing Notice states that the entire Administrative Record may not be present at the hearing. The County and LACFCD respectfully object to the absence of portions of the Administrative Record and request that the entire Administrative Record be present for the entirety of the hearing. Should the Board deny this request, then the County and LACFCD request that at least the documents set forth on Attachment A be available at the hearing.

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#### III. Parties

## A. Regional Board Staff

The Hearing Notice states that the Los Angeles Water Board staff is not a party to this proceeding. This statement is inconsistent with the APA. The County and LACFCD request that Water Board staff clearly state their status in this hearing prior to the commencement of the proceeding.

#### B. Requests for Party Status

The Hearing Notice letter sets forth the list of parties to the proceeding. It then provides that other persons or organizations who wish to participate as a party can request party status.

The County and LACFCD request the opportunity to comment and be heard on any request by any entity to be designated as a party to this proceeding before such designation occurs. As permittees that will be the subject to the permit, the County and LACFCD have the right to comment and be heard on any request by any non permittee to participate in this adjudicative proceeding.

The County and LACFCD make this request because designation of additional parties could unduly complicate and lengthen this hearing without substantial benefit. While the County and LACFCD do not wish to limit the ability of interested third parties to voice their concerns, it is critical that any additional time needed to allow for the participation of third parties not limit the time given to the permittees to address their substantive issues.

As set forth below, the County and LACFCD suggest that any requests for party status be addressed at a pre-hearing conference with the Chair.

#### IV. Procedures at the Hearing

## A. Objection to Proceeding Contrary to the Code of Regulations, Government Code or Evidence Code

This proceeding is a formal adjudicative proceeding, governed by 23 Cal. Code Reg. § 648, *et seq.* Chapter 4.5 of the APA (Government Code § 11400 *et seq.*), Government Code § 11513, and Evidence Code §§ 801 through 805. The County and LACFCD object to any procedure contrary to or inconsistent with any of these provisions.

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## B. Prehearing Conference

The County and the LACFCD respectfully request that the Chair hold a pre-hearing conference with staff and all parties to address procedural issues. These issues include ruling on requests for party status, the presentation and submission of evidence, segmentation of the hearing by subject as discussed below, and any other procedural issue that the Chair, staff or parties believes should be addressed in order to allow the hearing to proceed in an orderly fashion.

## C. Submittal of Evidence

The Hearing Notice states, in Section VI, that pursuant to 23 Cal. Code Reg. § 648.4, "untimely submittal of written comments or evidence will not be allowed or accepted into the Administrative Record without a showing of good cause for the delay, and in no event if any party or the Board would be unduly prejudiced by the late submittal or if staff or the Los Angeles Water Board would not have an adequate opportunity to review, consider, and respond to the comments or evidence."

The County and LACFCD object to this provision to the extent that it is inconsistent with 23 Cal. Code Reg. § 648 *et seq.*, Chapter 4.5 of the APA, and Government Code § 11513. The County and LACFCD reserve the right to present evidence at the hearing consistent with these provisions, including the right to subpoena witnesses.

## D. Direct Testimony

The County and LACFCD desire to make their presentations on permit issues as efficiently and clearly as possible and to minimize the time required. Therefore, we intend to forego our right to question our witnesses through counsel. Instead, each witness will make a presentation to the Water Board.

## E. Coordination with Other Permittees

The County and LACFCD will work with other permittees to coordinate presentations as appropriate.

## F. Cross-Examination

The County and LACFCD reserve the right to cross-examine all witnesses and parties. Government Code § 11513.

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## G. Hearsay

The County and LACFCD object to hearsay evidence being used for any purpose other than supplementing or explaining other evidence. The County and LACFCD object to any finding that is supported solely by hearsay. Government Code § 11513(d).

## H. Opening Statement

The County and LACFCD request the right to make a short opening statement before the presentation of evidence. The County and LACFCD submit that the presentation of a short opening statement, summarizing the issues of concern, before the presentation of evidence will help the Board focus on the matters of greatest concern to permittees. The Board could also use this time to hear from elected officials, who may prefer to speak at the commencement of the proceedings rather than during the presentation of evidence.

## I. Closing Statement

The County and LACFCD reserve the right to make a closing statement after the conclusion of the presentation of all evidence. 23 Cal. Code Reg. § 648.5(d).

## V. Time Requested

The current proposed manner of proceeding makes it difficult to estimate the time the County and LACFCD will need to present their comments and evidence. As discussed above, the absence of another tentative draft or the opportunity to make additional comments will result in many issues remaining unresolved, leading to an unnecessarily long and complex hearing. The County and LACFCD believe that there are outstanding issues that possibly could be resolved if Board staff issues their responses to the initial comments and releases another tentative draft that addresses those comments, holds a workshop on that draft and receives additional comments. The County and LACFCD therefore urge the Regional Board to reconsider its current manner of proceeding.

If the Board proceeds as currently noticed, there are several major subjects that must be addressed as well as the detailed language of the Draft Permit and its attachments. Under the current procedure, the County and LACFCD will require at least 5 hours to present their evidence and comments at the hearing. This estimate is without prejudice to revision, upwards or

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downwards, in light of any presentation made by Board staff or any other designated party at the hearing and in light of the responses to comments which have not yet been provided to the County or LACFCD. As noted, the County and LACFCD will work with other permittees to coordinate presentations and in light of that coordination this estimate may be able to be reduced.

## VI. Segmentation of Subjects at the Hearing

Given the number of highly complex matters and the likely number of presenters, witnesses, and interested parties, and given that this hearing is set for two days, the County and LACFCD suggest that the hearing should be divided into segments, so that the Water Board can focus its attention on discreet issues as the hearing proceeds rather than waiting until the end of the hearing. This will greatly help to simplify consideration of the issues.

The County and LACFCD therefore suggest that the hearing be divided into at least three substantive segments. The first segment would address Parts III, IV, V, and VI.E of the Draft Permit, the discharge prohibitions, receiving water limitations, incorporation of TMDLs, and costs. The second segment would cover the remainder of Part VI (minimum control measures and other programmatic permit requirements and monitoring). The third segment would cover the remainder of the permit's provisions. If this approach is followed, the Water Board may wish to further divide the first segment.

Instead of each party making a presentation on the entire permit, which could become lengthy and difficult to recall, each party would instead have the opportunity to make its presentation with respect to the issues covered by the respective segment. Cross-examination, if any, would occur at that time with respect to those issues. Any interested person would also be given the opportunity to comment on the segment's issues at this time. This would be followed by the Water Board's questions and discussion by the Water Board on that segment's issues. In its discretion, the Water Board could also entertain motions at that time on potential amendments to the Permit language relating to those issues, amendments that would be incorporated into the final motions at the end of the hearing.

In this way, the presentations would focus on related substantive issues before moving to the next segment. This approach will promote clarity and avoid the risk that comments or evidence will be lost or forgotten during this highly complex hearing.

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Accordingly, the County and LACFCD request that, with the leave of the Chair, the hearing be conducted as follows:

- 1. Administration of oath to persons who intend to testify
- 2. Opening statements by Water Board staff and parties (summarizing principal comments in support/opposition to proposed permit language)
- 3. Hearing Segment 1 (Discharge Prohibitions, Receiving Water Limitations, TMDL Incorporation, and Costs):
  - Water Board staff presentation;
  - Party presentations;
  - Interested persons' comments;
  - Cross-examination/rebuttal by staff and parties;
  - Questions from Water Board to parties and staff;
  - Closing statements by staff and parties;
  - Discussion by Board;
  - At the discretion of Water Board, motions on potential amendments regarding permit issues discussed in Segment 1 (subject to modification during final Water Board deliberations)
- 4. Hearing Segment 2 (Minimum Control Measures and Monitoring): (as in Segment 1)
- 5. Hearing Segment 3 (All other portions of Permit): (as in Segment 1)
- 6. Final Regional Board deliberations
- 7. Regional Board decision (including amendments made during segments)

On behalf of the County and the LACFCD, we appreciate this opportunity to respond to the Hearing Notice. If you or other Board staff have any questions

BURHENN & GEST LLP

Mr. Ivar Ridgeway August 23, 2012 Page 8

concerning the matters discussed in this letter, please do not hesitate to contact me at the phone number or e-mail noted above.

Very truly yours,

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## ATTACHMENT A (ADMINISTRATIVE RECORD)

	DATE	ITEM
1.	6/12/06	Report of Waste Discharge from LA County, DPW
2.	11/24/10	Report of Waste Discharge from Los Angeles County Flood Control District
3.	4/25/12	Meeting: Los Angeles County – Wide Draft MS4 Permit Meeting Agenda Sign In Sheet
		Los Angeles County Flood Control District Proposal (LACFCD) LACFCD Comments
4.	2/9/12	Comments, County of Los Angeles, DPW
5.	3/1/12	Stakeholders Workshop, Transcript of Proceedings
6.	11/10/11	Board Workshop, Presentation by Los Angeles County Flood Control District and County of Los Angeles
7.	5/14/12	Comments on May 3, 2012 Board Workshop, County of Los Angeles, DPW
8.		References
		State of the Watershed Reports:
		The Santa Clara River Watershed, November 2006
		<ul> <li>The Santa Monica Bay Watershed Management Area (2nd edition), November 2011</li> </ul>
		<ul> <li>Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area, October 2008</li> </ul>
		Watershed Management Initiative Chapter, December 2007
-		Chapter 2.3 Los Angeles River Watershed

	Chapter 2.4 San Gabriel River Watershed	
	Chapter 2.5 Los Cerritos Channel and Alamitos Bay WMA	
	Chapter 2.10 Calleguas Creek Watershed	
9.	Findings and Legal Decisions	
	LA MS4 Mandates Superior Court decision	
	<ul> <li>United States Environmental Protection Agency Establishing total maximum daily load (TMDL) wasteload allocations (WLAs) for storm water resources and NPDES permit requirements based on those WLAs. Office of Water Memorandum to Water Division Directors Regions 1-10, November 22, 2002</li> </ul>	
10.	Discharge Prohibitions	
	<ul> <li>State Water Board, Attachment B – Special Protections for Areas of Special Biological Significance, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges</li> </ul>	
	<ul> <li>State Water Board, Attachment B – Special Protections for Areas of Special Biological Significance, Governing Point Source Discharges of Storm Water and Nonpoint Source Waste Discharges. Flow chart.</li> </ul>	
11.	Special Provisions: Miscellaneous Provisions	
	<ul> <li>Los Angeles County Department of Public Works 2010- 2011 Stormwater Monitoring Report, Appendices B.1 and B.2</li> </ul>	
	<ul> <li>Los Angeles County Department of Public Works Stormwater Monitoring Reports 2005-2011</li> </ul>	







August 23, 2012

Via electronic mail

Mr. Sam Unger Executive Officer and Members of the Board California Regional Water Quality Control Board, Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, CA 90013 *Email: iridgeway@waterboards.ca.goy* 

## Re: Request of NRDC, Los Angeles Waterkeeper, and Heal the Bay for Party Status and Comments on Hearing Procedure for Los Angeles County MS4 Permit

Dear Mr. Unger:

On behalf of the Natural Resources Defense Council ("NRDC"), the Los Angeles Waterkeeper ("Waterkeeper"), and Heal the Bay, we are writing with regard to the Los Angeles Regional Water Quality Control Board ("Regional Board") Hearing on the Tentative National Pollutant Discharge Elimination System ("NPDES") Permit for Municipal Separate Storm Sewer System (MS4) Discharges Within the Los Angeles County Flood Control District, Including the County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach, Draft permit R4-2012-XXXX, NPDES Permit No. CAS004001 ("Tentative Order"), scheduled for October 4-5, 2012 ("Permit Hearing").

## I. <u>NRDC</u>, Waterkeeper, and Heal the Bay Request Party Status for the Permit <u>Hearing</u>

Pursuant to Public Notice issued by the Regional Board on June 6, 2012 for the October 4-5, 2012 hearing on the Tentative Order, the NRDC, Waterkeeper, and Heal the Bay (collectively, "Environmental Groups") each hereby request party status. Environmental Groups have been deeply involved with the permit process for the draft Tentative Order and have been among the most active public interest organizations in the stormwater and urban runoff field in southern California, investing an enormous effort over many years to reduce water quality degradation related to stormwater runoff.

## A. NRDC, Waterkeeper, and Heal the Bay Have Direct and Substantial Interests in This Proceeding that Justify Their Designation as Parties

First, Environmental Groups represent members who recreate in the waters to which the Tentative Order regulates discharges of stormwater runoff. The groups' members are impacted by pollution in stormwater runoff and its resulting health impacts, and by beach closures which restrict the ability of residents and visitors in Los Angeles County to use the beach and local waters for recreation and other purposes.

Second, Environmental Groups submitted extensive written comments and expert analysis on the Tentative Order on July 23, 2012, and have submitted written comments on prior staff working proposals for the permit's Minimum Control Measures and (submitted April 13, 2012), Non-Storm Water Discharge Prohibitions (submitted April 18, 2012) and its Receiving Water Limitations ("RWLs"), Total Maximum Daily Load ("TMDL"), and Watershed Program provisions (submitted May 14, 2012). Environmental Groups also presented testimony and/or participated at Regional Board Workshops on the draft Tentative Order on March 1, 2012, April 5, 2012, May 3, 2012, and July 3, 2012; participated in stakeholder discussions convened by Regional Board staff on May 17, 2012, May 31, 2012, and July 9, 2012; and met with Board staff to discuss draft permit terms on numerous additional occasions in 2011 and 2012. We have worked throughout the drafting process to ensure the adopted Order will meet the requirements of federal and state law and achieve relevant requirements for water quality in Los Angeles County.

Third, Environmental Groups also have a long history of working to adopt, strengthen and enforce the MS4 permit for Los Angeles County, the TMDLs it implements, and the water quality standards that it is designed to achieve. For example, in 2003, Environmental Groups successfully intervened in a lawsuit filed by many of the Permittees against the Regional Board, challenging the application of water quality standards to stormwater in the 2001 Los Angeles County MS4 Permit. (See, County of Los Angeles v. California State Water Resources Control Bd. (2006) 143 Cal.App.4th 985.) The California Appellate Court rejected the Permittees' arguments and found that "substantial evidence" supported a finding by the trial court that the Permit's restrictions on pollutant discharges were lawful. (Id.) In 2008, Environmental Groups successfully intervened in a lawsuit filed by many of the Permittees and the Building Industry Legal Defense Foundation against the Regional Board and State Water Resources Control Board ("State Board") that sought an order requiring the Water Boards to declare the application of water quality standards to stormwater null and void and cease all activities relating the implementation and application of water quality standards to stormwater pending further review by the Boards. (See, City of Arcadia v. State water Resources Control Bd. (2010) 191 Cal.App.4th 156.) On Appeal, the Court determined, among other findings, that the "Regional Board's actions were compelled by federal law," and that the Permittees could not cite to state law requirements to compel lower water quality levels. (Id. at 179.) NRDC and Waterkeeper are further parties to litigation seeking to

Mr. Sam Unger, Executive Officer RWQCB Los Angeles Region August 23, 2012 Page | 3

enforce violations of the current MS4 permit for Los Angeles County. (See, *Natural Resources Defense Council v. County of Los Angeles* (2011) 673 F.3d 880.)

Fourth, in 1999, Heal the Bay and Waterkeeper (represented by NRDC) brought an action against the U.S. EPA for its failure to develop TMDLs as required by the federal Clean Water Act. (*Heal the Bay, Inc. v. Browner* (N.D. Cal. 1999) Case No. C 98-4825 SBA.) To settle the claims, the parties entered into a Consent Decree, approved by District Court Judge Armstrong in 1999, whereby EPA would develop dozens of TMDLs, many of which will be implemented by the Tentative Order. In 2010 Heal the Bay additionally successfully intervened in a lawsuit filed by the County of Los Angeles and the Los Angeles County Flood Control District seeking to vacate MS4 permit amendments to incorporate and implement the Santa Monica Bay Beaches Dry Weather Bacteria TMDL. (*County of Los Angeles v. State Water Resources Control Bd.*, No. BS122724 (L.A. Super. Ct. July 16, 2010).) Over Intervenor Heal the Bay's objections, the Court vacated the TMDL amendments on purely procedural grounds.

## **B.** Without Party Status, the Action of the Board May Impair Environmental Groups' Ability to Protect Their Interests

The outcome of the Permit Hearing may impair or impede Environmental Groups ability to protect the interests described above in numerous ways. For example, the disposition may impair the ability of Heal the Bay and Waterkeeper (represented by NRDC) to protect their legal interests in matters relating to TMDLs in Los Angeles County, most notably those found in *Heal the Bay, Inc. v. Browner* (N.D. Cal. 1999) Case No. C 98-4825 SBA. The outcome of the Permit Hearing has potential ramifications for the incorporation and implementation of those TMDLs through the Tentative Order. NRDC and Waterkeeper are further parties to litigation seeking to enforce violations of the current MS4 permit for Los Angeles County and have an interest in ensuring the new Permit fully complies with federal and state laws. (See, *Natural Resources Defense Council v. County of Los Angeles* (2011) 673 F.3d 880.)

# C. Environmental Groups' Interests Are Not Adequately Represented by the Existing Parties to this Hearing

The current parties to these permit proceedings are municipal and county entities that will be regulated under the Tentative Order and ultimately responsible for implementing the requirements it imposes. Conversely, Environmental Groups are nonprofit organizations focused on protecting Los Angeles County's aquatic resources, including Santa Monica Bay, and its beachgoers. Environmental Groups have throughout the Tentative Order drafting process presented, and undoubtedly will at the hearing present, arguments that are in opposition to positions taken by the existing parties and will add necessary elements to the hearing that the existing parties will likely neglect. These include full discussion of the impacts and costs of failing to adequately reduce pollution in stormwater runoff; providing discussion of federal and state legal requirements that

mandate many of the terms contained in the Tentative Order, including the Order's RWLs, TMDL, and Low Impact Development Requirements, and discussion of the federal process for adoption of the permit and that this process cannot be undercut directly or indirectly by state law; and presentation of case studies, scientific research, and other documentation demonstrating the feasibility of terms in the Tentative Order or of additional provisions that are currently lacking in the Tentative Order. As no existing or other party will adequately represent the Environmental Groups and their unique interests, they are properly given party status here.

Environmental Groups are regular, consistent participants in water quality matters large and small before the Regional Board, State Board, as well as in litigation related to water quality issues, including directly involving the MS4 permit for Los Angeles County. We have been deeply involved with the adoption process for the draft Tentative Order for over a year. As such, we each request designation as a party to the proceeding. In order to allow for adequate time for preparation for the Permit Hearing, Environmental Groups request that the Regional Board respond by no later than Thursday, September 6, 2012.

## II. <u>Environmental Groups Request Four Hours for Presentation and Hearing</u> <u>Practice</u>

Environmental Groups request that the Regional Board allocate to them a total of four (4) hours of time for presentation, expert witness testimony, and cross examination as necessary. This time would be divided roughly as follows: Presentation (1.5 hours); Expert Witness Testimony (2-4 witnesses at approximately 20 minutes each – 40 to 80 minutes); Cross-Examination of Staff/Witnesses/Other Parties: (1 hour) and time for remaining hearing practice.¹ This amount of time is necessary to ensure a proper vetting of the issues and complexities raised by the Tentative Order and comments submitted by permittees.

The Public Notice for the Hearing states that the "Los Angeles Water Board staff is not a party to this proceeding." We also write here to confirm that Regional Board staff will be available for cross-examination by the parties as necessary at the Permit Hearing.

¹ Environmental Groups request 4 hours as the minimum amount of time necessary for adequate presentation of the issues raised by the Tentative Order. However, in the event that additional time over and above four hours is requested by any other party to the hearing and granted to that party by the Regional Board, Environmental Groups request that we be granted additional time equal to that other party in order to ensure a fair hearing.

## III. <u>Environmental Groups Request that the Regional Board Designate a Time or</u> Date Certain for Public Comment at the Permit Hearing

The current lack of any set agenda for the Permit Hearing, scheduled for two days from October 4-5 creates significant hardship for members and partners of Environmental Groups in presenting testimony during any period for public comment. The lack of such schedule or agenda could result in a member of the public being required to take two full days off from work in order to present testimony, with no guarantee of whether their comments would be heard on the first or second day of the Permit Hearing. We request that the Regional Board establish a date certain (October 4 or 5), preferably specifying morning or afternoon, for the public to present testimony at the Permit Hearing.

## IV. Designated Contact for Receipt of Notices About this Proceeding

Communications related to this proceeding or to the Environmental Groups' request for Party Status may be directed to:

Noah Garrison Natural Resources Defense Counsel 1314 Second Street Santa Monica, CA 90405 Tel: 310-434-2300 / Email: <u>ngarrison@nrdc.org</u>

Liz Crosson Los Angeles Waterkeeper 120 Broadway, Suite 105 Santa Monica, CA 90401 Tel: 310-394-6162 / Email: <u>liz@lawaterkeeper.org</u>

Kirsten James Heal the Bay 1444 9th Street Santa Monica, CA 90401 Tel: 310-451-1500 / Email: kjames@healthebay.org

## V. <u>The Regional Board Must Provide Separate Counsel to Serve as Advisor to</u> <u>the Board</u>

Courts are clear that staff or counsel for the Regional Board may "not act as both an advocate before the [Regional Board] and an advisor to the [Regional Board]." (See attachment A: Notice of Entry of Judgment and Issuance of Peremptory Writ of Mandate, in *County of Los Angeles v. State Water Resources Control Bd.*, No. BS122724 (L.A. Super. Ct. July 16, 2010); see also, *Nightlife Partners, LTD. v. City of Beverly Hills* (2003) 108 Cal.App.4th 81.) The Notice of Public Hearing released by the Regional

Board on June 6, 2012 states that "Los Angeles Water Board staff is not a party to this proceeding" and the proceeding "does not involve investigative, prosecutorial, or advocacy functions." However, the potential exists for Regional Board counsel to be required to fulfill dual roles—acting, on the one hand, to cross examine witnesses or to present evidence before the Regional Board, and, on the other hand, to rule on the admissibility of evidence, on proper procedure for witness conduct, or to otherwise serve in an advisory capacity to the Regional Board dedicate a separate legal staff member for solely procedural and evidentiary matters, to prevent any actual or perceived conflict between the various potential roles required of Board counsel at the hearing.

We note that this issue has resulted in the voiding and setting aside of an amendment to the Los Angeles County MS4 Permit previously. (See Attachment A.) In that case, years of work and substantial resources of the Regional Board, the Permittees, and stakeholders, including Environmental Groups, to incorporate and implement the Santa Monica Bay Beaches Dry Weather Bacteria TMDL were lost due to appearance that Board counsel was acting as both advocate and advisor to the Regional Board. The Board should take every step to ensure that this outcome is not repeated here.

## VI. <u>Conclusion</u>

Environmental Groups request party status to the October 4-5 Regional Board Hearing on the Tentative Order, and that the Regional Board designate separate counsel for solely procedural and evidentiary questions that may arise during the Hearing. Environmental Groups further reserve our right to raise objections on procedural or other grounds that may arise during, or prior to, the Permit Hearing. Thank you for your attention to this matter, and please do not hesitate to contact us with any questions you might have.

Sincerely,

Noah Garrison Project Attorney Natural Resources Defense Council

Liz Crosson Executive Director Los Angeles Waterkeeper

Lister James

Kirsten James Director of Water Quality Heal the Bay

		RB-AR4686
1	ANDREA SHERIDAN ORDIN, County Counsel JUDITH A. FRIES, Principal Deputy (SBN 0708	<b>EXEMPT FROM FILING FEES</b> 97) <b>GOVERNMENT CODE § 6103</b>
2	LAURIE E. DODS, Deputy (SBN 157756) Kenneth Hahn Hall of Administration	
3	500 W. Temple St., Rm. 653 Los Angeles, California 90012 Telephone: (213) 974-1923	
4	Facsimile: (213) 687-7337	
5	HOWARD GEST (SBN 076514) DAVID W. BURHENN (SBN 105482) BURHENN & GEST LLP	
6	624 South Grand Avenue Suite 2200	
7	Los Angeles, California 90017 Telephone: (213) 688-7715	
8	Facsimile: (213) 688-7716	
9 10	Attorneys for Petitioners COUNTY OF LOS ANGELES and LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	
11		
12	SUPERIOR COURT OF TH	HE STATE OF CALIFORNIA
13		LOS ANGELES
14	COUNTY OF LOS ANGELES and LOS ) ANGELES COUNTY FLOOD CONTROL	CASE NO. BS122724
15	DISTRICT,	[Assigned to the Hon. David P. Yaffe]
16	Petitioners,	NOTICE OF ENTRY OF JUDGMENT AND ISSUANCE OF PEREMPTORY WRIT OF
17	v. }	MANDATE
18	STATE WATER RESOURCES CONTROL	
19	QUALITY CONTROL BOARD, LOS	
20	ANGELES REGION; and DOES 1 through 50, inclusive,	
21	Respondents.	)
22	)	
23	DI FASE TAKE NOTICE that on July 16	, 2010, the court entered judgment in this matter. A
24	copy of the judgment is attached hereto as Exhibit	
25	bopy of the judgment is attached hereto as Exhibit	
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	NOTICE OF ENTRY OF JUDGMENT AND ISS	UANCE OF PEREMPTORY WRIT OF MANDATE

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1	PLEASE TAKE FURTHER NOTICE that on July 23, 2010, in accordance with the	
2	judgment, the clerk of the court issued a Peremptory Writ of Mandate. A copy of the Peremptory	
3	Writ of Mandate is attached hereto as Exhibit 2.	
4	Dated: July 23, 2010 ANDREA SHERIDAN ORDIN, County Counsel	
5	JUDITH A. FRIES, Principal Deputy County Counsel LAURIE E. DODS, Deputy County Counsel	
6 7	BURHENN & GEST LLP HOWARD GEST DAVID W. BURHENN	
8		
9	By:	
10	Attorneys for Petitioners County of Los Angeles and Los Angeles County Flood Control District	
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# **EXHIBIT** 1

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<b>*</b>		
1 2 3 4 5 6 7	ANDREA SHERIDAN ORDIN, County Counse JUDITH A. FRIES, Principal Deputy (SBN 0708 LAURIE E. DODS, Deputy (SBN 157756) Kenneth Hahn Hall of Administration 500 W. Temple St., Rm. 653 Los Angeles, California 90012 Telephone: (213) 974-1923 Facsimile: (213) 687-7337 HOWARD GEST (SBN 076514) DAVID W. BURHENN (SBN 105482) BURHENN & GEST LLP 624 South Grand Avenue Suite 2200 Los Angeles, California 90017	1 1 1 1 97) <b>ORIGINAL FILED</b> JUL 16 2010 <b>LOS ANGELES</b> SUPERIOR COURT
8 9 10	Telephone: (213) 688-7715 Facsimile: (213) 688-7716 Attorneys for Petitioners COUNTY OF LOS	
11 12	SUPERIOR COURT OF TH	HE STATE OF CALIFORNIA
13	COUNTY OF	LOS ANGELES
14 15	COUNTY OF LOS ANGELES and LOS ANGELES COUNTY FLOOD CONTROL DISTRICT,	CASE NO. BS122724
16	Petitioners,	[P <del>ROPOSED]</del> JUDGMENT GRANTING PEREMPTORY WRIT OF MANDATE
17 18 19	v. STATE WATER RESOURCES CONTROL BOARD; CALIFORNIA REGIONAL WATER	Date: June 2, 2010 Time: 9:30 a.m. Place: Dept. 86
20 21	QUALITY CONTROL BOARD, LOS ANGELES REGION; and DOES 1 through 50, inclusive,	
22	Respondents.	
23	/	
24	This matter came on for trial before the H	onorable David P. Yaffe, Superior Court Judge, on
25	June 2, 2010. Petitioners were represented by Howard Gest and David W. Burhenn of Burhenn &	
26	Gest LLP. Respondents were represented by Helen G. Arens, Deputy Attorney General. Intervenor	
27	Heal the Bay was represented by Steve Fleischli.	
28		1-
ł	JUDGMENT GRANTING PERE	CMPTORY WRIT OF MANDATE

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		í.	
1	The Court, having reviewed the record of Respondents' proceedings in this matter, the briefs		
2	submitted by counsel, and having heard the arguments of counsel, and being fully advised,		
3	IT IS HEREBY ORDERED, ADJUDGED, AND DECREED that:		
4	1. The Petition for Writ of Mandate is granted. For the reasons set forth in the Court's		
5	minute order dated June 2, 2010, Respondent California Regional Water Quality Control Board, Los		
б	Angeles Region ("Regional Board"), committed a prejudicial abuse of discretion.		
7	2. A Peremptory Writ of Mandate shall issue commanding Respondents:		
8	(a) To void and set aside Los Angeles Regional Water Quality Control Board		
9	Order No. R4-2006-0074 and all amendments to the Los Angeles County Municipal Storm Water		
10	Permit (Order No. 01-182) effected thereby;		
11	(b) To void and set aside State Water Resources Control Board Order WQ 2009-		
12	0008, without prejudice to the State Water Resources Control Board's consideration of the matters		
13	addressed in Order WQ 2009-0008 based on any new administrative record that may come before it;		
14	(c) To cease and suspend any and all activities taken by Respondents pursuant to		
15	Los Angeles Regional Water Quality Control Board Order No. R4-2006-0074 or State Water		
16	Resources Control Board Order WQ 2009-0008; and		
17	(d) To make and file a return to this writ ninety (90) days from the date a copy of		
18	this writ is served on them showing what they have done to comply with this writ.		
19	3. The Peremptory Writ shall further command that, should Respondent Regional Board CONDUCT ANY FURTHER HEARING UPON REMAND, AT		
20	choose to amend the Los Angeles County Municipal Storm Water Permit (Order No. 01-182) to SUCH HEARING		
21	reflect the terms of the Santa Monica Bay Beaches Dry Weather Bacteria TMDL, Regional Board		
22	SHALL- Resolution No. 02-004, such amendment shall occur at a hearing in which the same person does not		
23	act as both an advocate before the Los Angeles Regional Water Quality Control Board and an		
24	advisor to the Los Angeles Regional Water Quality Control Board, and in which the Regional Board		
25	counsel who participated in the last Regional Board hearing does not participate. 4. OBJECTIONS BY RESPONDENTS AND INTERVENOR to		
26	THIS PROPOSED JUDGMENT ARE OVERIULED.		
27			
28	-2-		
	JUDGMENT GRANTING PEREMPTORY WRIT OF MANDATE		

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Dated: JUL 1 6 2010	
	David P. Yaffe
	Superior Court Judge
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# **EXHIBIT 2**

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•	REG	CEIVED	
		0 2 2010	
1	ANDREA SHERIDAN ORDIN. County Cou	PT SCEXEMPT FROM FILING FEES	
2	JUDITH A. FRIES, Principal Deputy (SBN 0708 LAURIE E. DODS, Deputy (SBN 157756) Kenneth Hahn Hall of Administration	97) GOVERNMENT CODE § 6103	
3	500 W. Temple St., Rm. 653 Los Angeles, California 90012		
4	Telephone: (213) 974-1923 Facsimile: (213) 687-7337		
5	HOWARD GEST (SBN 076514)		
6	DAVID W. BURHENN (SBN 105482) BURHENN & GEST LLP 624 South Grand Avenue		
7	Suite 2200 Los Angeles, California 90017		
8	Telephone: (213) 688-7715 Facsimile: (213) 688-7716		
9 10	Attorneys for Petitioners COUNTY OF LOS ANGELES and LOS ANGELES COUNTY		
11	FLOOD CONTROL DISTRICT		
12	SUPERIOR COURT OF TH	IE STATE OF CALIFORNIA	
13	COUNTY OF LOS ANGELES		
14	COUNTY OF LOS ANGELES and LOS ANGELES COUNTY FLOOD CONTROL	CASE NO. BS122724	
. 15	DISTRICT,	A	
16	Petitioners,	[PROPOSED] PEREMPTORY WRIT OF MANDATE	
17	v. 3	Date: June 2, 2010 Time: 9:30 a.m.	
18	STATE WATER RESOURCES CONTROL	Place: Dept. 86	
19 20	BOARD; CALIFORNIA REGIONAL WATER ) QUALITY CONTROL BOARD, LOS		
20	ANGELES REGION; and DOES 1 through 50, ) inclusive,		
21	Respondents.		
23	//		
24	TO RESPONDENTS STATE WATE	R RESOURCES CONTROL BOARD AND	
25	CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION:		
26	WHEREAS judgment has been entered	in this action ordering that a peremptory writ of	
27	mandate be issued from this Court,		
28		.1-	
	[PROPOSED] PEREMPT	ORY WRIT OF MANDATE	

THEREFORE, IN ACCORDANCE WITH THE JUDGMENT, YOU ARE HEREBY 1 2 COMMANDED:

(

3 To void and set aside Los Angeles Regional Water Quality Control Board (a) 4 Order No. R4-2006-0074 and all amendments to the Los Angeles County Municipal Storm Water 5 Permit (Order No. 01-182) effected thereby;

(b) To void and set aside State Water Resources Control Board Order WQ 2009-0008, without prejudice to the State Water Resources Control Board's consideration of the matters addressed in Order WQ 2009-0008 based on any new administrative record that may come before it;

(c) To cease and suspend any and all activities taken by you pursuant to Los Angeles Regional Water Quality Control Board Order No. R4-2006-0074 or State Water Resources Control Board Order WQ 2009-0008;

C++ 04CT ANY FURTHER HEARFNG Should you choose to amend the Los Angeles County Municipal Storm Water (d) HEARSNG SHLH Permit (Order No. 01-182) to reflect the terms of the Santa Monica Bay Beaches Dry Weather Bacteria TMDL, Regional Board Resolution No. 02-004, such amendment shall occur at a hearing in Shall which the same person does not act as both an advocate before the Los Angeles Regional Water Quality Control Board and an advisor to the Los Angeles Regional Water Quality Control Board, and in which the individual who participated as Regional Board counsel in the last Regional Board hearing does not participate; and

19 (e) To make and file a return to this writ ninety (90) days from the date a copy of 20 this writ is served on you showing what you have done to comply with this writ.

Dated: July 23,201021 22

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John A. Clarke



LOS ANGELES SUPERIOR COURT CLERK Kelly Encinas

LET THE FOREGOING WRIT ISSUE.

25 Dated: July , 2010 26 27

Superior Court Judge

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## [PROPOSED] PEREMPTORY WRIT OF MANDATE

•	RB-AR4695
• .,	
1	PROOF OF SERVICE
2	I am employed in Los Angeles County. I am over the age of 18 and not a party to this action. My business address is 624 S. Grand Avenue, 22 nd Floor, Los Angeles, California 90017.
3	On July 1, 2010, I served the foregoing documents, described as
4	[PROPOSED] PEREMPTORY WRIT OF MANDATE
5 6	<ul> <li>☐ the original of the document</li> <li>☑ true copies of the document</li> </ul>
7	in separate sealed envelopes addressed as follows:
8	See Attached List
9 10 11	<b>BY U.S. MAIL</b> : I sealed and placed such envelope for collection and mailing to be deposited on the same day at Los Angeles, California. The envelopes were mailed with postage thereon fully prepaid. I am readily familiar with Burhenn & Gest LLP's practice of collection and processing corresponding for mailing. Under this practice, documents are deposited with the U.S. Postal Service on the same day that is stated in the proof of service, with postage fully prepaid at Los Angeles, California in the ordinary course of business.
12 13 14	<b>BY FEDERAL EXPRESS:</b> I am familiar with the firm's practice of collecting and processing correspondence for delivery via Federal Express. Under that practice, it would be picked up by Federal Express on that same day at Los Angeles, California and delivered to the parties as listed on this Proof of Service the following business morning.
15 16	<b>BY FACSIMILE</b> : I caused the above referenced document to be transmitted via facsimile and to the parties as listed on this Proof of Service.
13	<b>BY PERSONAL SERVICE</b> : I caused such envelope to be delivered by messenger to the office or home of the addressee(s).
18	STATE: I declare under penalty of perjury under the laws of the state of California that the
19	above is true and correct.
20	<b>FEDERAL</b> : I declare that I am employed in the office of a member of the bar of this court at whose direction the service was made.
21	Executed on July 1, 2010 at Los Angeles, California.
22	$\sim$ · ·
23	(à du
24	Jan Dunlap
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28	





August 23, 2012

Via electronic mail

Mr. Sam Unger Executive Officer and Members of the Board California Regional Water Quality Control Board, Los Angeles Region 320 West 4th Street, Suite 200 Los Angeles, CA 90013 *Email: sunger@waterboards.ca.gov* 

## *Re:* Participation of Board Member Mary Ann Lutz in Los Angeles MS4 Permit Hearing

Dear Mr. Unger and Members of the Board:

On behalf of the Natural Resources Defense Council ("NRDC") and the Los Angeles Waterkeeper ("Waterkeeper"), we are writing with regard to Board Member Mary Ann Lutz's proposed participation in the Hearing of the Los Angeles Regional Water Quality Control Board ("Regional Board") on the Tentative National Pollutant Discharge Elimination System ("NPDES") Permit for Municipal Separate Storm Sewer System (MS4) Discharges Within the Los Angeles County Flood Control District, Including the County of Los Angeles, and the Incorporated Cities Therein, Except the City of Long Beach, Draft permit R4-2012-XXXX, NPDES Permit No. CAS004001 ("Tentative Order"), scheduled for October 4-5, 2012 ("Permit Hearing"). Due to positions taken and statements made by Board Member Lutz and by groups with whom she has partnered—and in order to ensure a fair hearing—we respectfully request that she be recused from the Permit Hearing and any further Board process concerning the Tentative Order.

## I. Background and California Water Code Section 13207

As the Mayor of the City of Monrovia, a waste discharger subject to the Los Angeles County MS4 permit, Board Member Lutz was barred by California Water Code section 13207 from participating in Regional Board proceedings related to the Tentative Order.¹ However, based on changes to section 13207 made effective on June 27, 2012, the Regional Board transmitted a letter on July 6, 2012, stating that "[u]nder the new law,

¹ California Water Code section 13207 required that a Board member "shall not participate in any Board Action," including an action to adopt an NPDES permit, "which involves . . . any waste discharger with which he or she is connected as a director, officer or employee."

Mr. Sam Unger, Executive Officer RWQCB Los Angeles Region August 23, 2012 Page | 2

Board Member Lutz is not prohibited from participating as a discharger....² We disagree with this conclusion reached by the Regional Board, as Board Member Lutz continues to receive salary of \$400 per month that implicates Water Code section 13207's prohibition against a "disqualifying financial interest in the decision within the meaning of Section 87103 of the Government Code."

#### II. Board Member Lutz Must be Recused For Due Process Considerations Including Bias and Presence of Ex Parte Communications

California Courts are clear that "[j]ust as in a judicial proceeding, due process in an administrative hearing also demands an appearance of fairness and the absence of even a probability of outside influence on the adjudication. In fact, the broad applicability of administrative hearings to the various rights and responsibilities of citizens and businesses, and the undeniable public interest in fair hearings in the administrative adjudication arena, militate in favor of assuring that such hearings are fair." (*Nightlife Partners v. City of Beverly Hills* (2003) 108 Cal.App.4th 81, 90.) In order to assure a fair hearing, Board Member Lutz must not participate in the Permit Hearing or further Board process related to the Tentative Order.

A. <u>Board Member Lutz's Prior Statements Demonstrate an Unacceptable Probability of Actual Bias</u>

"Procedural due process in the administrative setting requires that the hearing be conducted '*before a reasonably impartial, noninvolved reviewer*."" (*Nasha, L.L.C. v. City of Los Angeles* (2004) 125 Cal.App.4th at 483 (emphasis in original).) Where "an unacceptable probability of actual bias on the part of those who have actual decisionmaking power over their claims" is present, it violates the "undeniable public interest in fair hearings in the administrative adjudication arena." (*Id.* at 483.) The actions of Board Member Lutz while she was precluded from participation in Regional Board action on the Tentative Order, demonstrate such "an unacceptable probability of actual bias."

For example, Board Member Lutz has stated, with respect to the stormwater requirements at issue before the Regional Board that, "the basic issue is that groups simply do not have the money to adhere to the requirements."³ In this regard, she has predetermined issues of cost and selection of pollution control measures that will be before the Regional Board as part of the Permit Hearing. Further, Board Member Lutz has worked, "in partnership" with the LA Permit Group, a consortium of 60 or more municipalities in Los Angeles County that have advocated for and taken specific positions on terms in the Tentative

² Letter from Frances McChesney, Office of Chief Counsel, to Regional Board Members, re: Amendment to Water Code Section 13207(a) (July 6, 2012), at 2.

³ Mary Ann Lutz (Spring 2012) "Cleaning Up Our Act is No Small Cost to Cities," Council for Watershed Health, Watershed Wise v. 14 no. 2, at

Mr. Sam Unger, Executive Officer RWQCB Los Angeles Region August 23, 2012 Page | 3

Order, "to develop a unified voice to participate in a collaborative negotiating process."⁴ Indeed, many of these same dischargers also fund a staff advisor for Board Member Lutz.⁵ Her significant involvement in this organized effort by LA MS4 Permittees and the funding provided for her staff advisor demonstrate that she cannot reasonably be expected to cast the unbiased, impartial vote mandated by due process. Were Board Member Lutz to now vote to adopt any of the positions advocated by the LA Permit Group at the Permit Hearing, such as to incorporate a "safe harbor" provision in the Tentative Order's Receiving Water Limitations, or to oppose the incorporation of TMDL waste load allocations as numeric effluent limitations,⁶ it would taint the entire Tentative Order adoption process.

B. <u>Board Member Lutz has engaged in Ex Parte Communications Regarding the</u> <u>Tentative Order</u>

We also note that prior to the July 6 Regional Board letter, Member Lutz engaged in an as yet unreleased number of *ex parte* communications with stakeholders and parties to the Permit Hearing, that would ordinarily be prohibited under California Government Code section 11430.10.⁷ Receipt of such communications by a Member of the Regional Board may be grounds for disqualification under Government Code section 11430.60 and, even if properly authorized when received, such communications may further compound due process concerns. We understand that that the Regional Board is working to release these communications for public review and comment. We reserve the right to comment on any *ex parte* communications of Board Member Lutz at that time and to request her disqualification as a result of these *ex parte* communications and any demonstration of potential bias they may reveal. We urge the Board to make these communications available by the end of this week to allow for their full evaluation prior to the Permit adoption hearing.

As the Board is well aware, procedural due process issues have previously resulted in the voiding and setting aside of an amendment to the Los Angeles County MS4 Permit.⁸ In that case, years of work and substantial resources of the Regional Board, the Permittees,

⁴ San Gabriel Valley Council of Governments (December 21, 2011) Letter from Nicholas T. Conway, Executive Director, to City Manager's Steering Committee, re: LA Permit Group Technical Assistance, at 1.

⁵ San Gabriel Valley Council of Governments (February 8, 2012) Letter from Nicholas T. Conway, Executive Director, to City Manager's Steering Committee, re: FY 2011-12 Mid-Year Budget Review and Revision, at 53.

⁶ See, e.g., Letter from LA Permit Group to Regional Board re: Technical Comments on Los Angeles Regional Water Quality Control Board Staff Working Proposals for the Greater Los Angeles County MS4 Permit (Permit) — Watershed Management Programs, TMDLs and Receiving Water Limitations (May 14, 2012; Letter from LA Permit Group to Regional Board re: Comments on Draft NPDES Permit (Draft Order), Order No. R4-2012-XXXX; NPDES Permit No. CAS004001, for MS4 Discharges within the Los Angeles County Flood Control District (July 23, 2012).

 ⁷ See, e.g., email from Mary Ann Lutz re: SAVE THE DATE - Meeting with US EPA (February 18, 2012).
 ⁸ See Notice of Entry of Judgment and Issuance of Peremptory Writ of Mandate, in *County of Los Angeles v. State Water Resources Control Bd.*, No. BS122724 (L.A. Super. Ct. July 16, 2010)

Mr. Sam Unger, Executive Officer RWQCB Los Angeles Region August 23, 2012 Page | 4

and stakeholders, including Environmental Groups, to incorporate and implement the Santa Monica Bay Beaches Dry Weather Bacteria TMDL were lost due to improper adherence to procedural due process requirements. The Board should take every step to ensure that such an outcome is not repeated here. While it is unfortunate that the timing of changes to the California Water Code complicate the participation of a Board member in these proceedings, for the foregoing reasons we respectfully request that Board Member Lutz be recused here.

Please do not hesitate to contact us with any questions you may have.

Sincerely,

Noah Garrison Project Attorney Natural Resources Defense Council

Liz Crosson Executive Director Los Angeles Waterkeeper

ESTUARY



State of the Watershed - San Gabriel River

## Volume 14, Number 2 Volume 14, Number 2 Volume 14, Number 2 Volume 14, Number 2

**HEADWATERS** 

MAINSTEM

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Enrique Zaldivar (Shahram Kharaghani - Alt.) City of Los Angeles - Bureau of Sanitation

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# Letter from the Executive Director

Nancy L.C. Steele, D. Env.

The San Gabriel River Regional Monitoring Program is a truly innovative collaboration of agencies and organizations whose purpose is to better understand and track the state of an urban watershed. As the first such monitoring program in California, and among the few such programs in the nation, the program stands as an example of what is possible when agencies and organizations work across boundaries towards a common goal, in this case to improve the health of a large urban watershed that serves more than 2 million people.

Although it is often Overshadowed by the Los Angeles River - its more famous neighbor to the West – the San Gabriel is a workhorse. The roughly 700 square mile watershed starts in a national forest and discharges southeast of two international ports, traveling through nine County-operated and two federal-operated dams. Flood control operations on the river allow water to percolate into aquifers, serving as a source of drinking water for much of the San Gabriel Valley.

The water flows over the land and through about 1,200 miles, dropping from the highest point - Mount Baldy at 10,068 feet - to sea level at Alamitos Bay. The watershed supports a Wide variety of plants and animals, some common and some endangered. Visitors in the forest and recreation areas enjoy camping, hiking, biking, fishing, boating, swimming, and skiing. The San Gabriel River Trail allows people to access 61-miles of mostly car-free bike path from Whittier Narrows to Long Beach.

The San Gabriel River is a lifeline and a source of joy for many. Our goal through the monitoring program is to stimulate improvements in the health of the watershed. While we don't often resort to citing quality control experts in this magazine, it is a truism that you can't improve what you don't measure. Thus we thank the program partners for ensuring that we can measure and monitor the watershed –Sanitation Districts of Los Angeles County, Los Angeles Regional Water Quality Control Board, SCCWRP, Los Angeles County Flood Control District, Orange County Watersheds, City of Downey, and Aquatic Bioassay & Consulting.

Council for Watershed Health, 700 N. Alameda St., Los Angeles, CA 90012 P: 213-229-9945 | F: 213-229-9952 | W: www.watershedhealth.org

# Cleaning Up Our Act

## is no small cost to cities

Mary Ann Lutz | Mayor of Monrovia



For those of us who have been working for years to improve water quality in Southern California, it can sometimes feel like we are swimming upstream. Though many cities and counties recognize the vital importance of environmental responsibility and watershed health, they are restrained by rising costs amidst a floundering economy. Our cities scramble to stay sustainable with severely limited resources.

In Monrovia, for example, the cost associated with following the bacterial Total Maximum Daily Loads (TMDLs) is about 10% of our general fund. Even more money is required to hire professionals to do the required research. With a struggling economy, funding from both the federal and state governments has dried up, and our local governments have been forced to decrease services to residents. Meanwhile, the cost of meeting clean water standards continues to increase.

Municipalities and water districts have known for years that recharging and recycling water can help ease demand and assist in stormwater clean-up. The problem is usually not with cities' willingness to comply, however, but with associated costs and the urgent need to generate economic growth.

Unfortunately this conflict can cause groups to turn to the courts. I have seen countless lawsuits filed because of strict water regulations, and the basic issue is that groups simply do not have the money to adhere to the requirements. These lawsuits have done nothing to advance water-quality clean-up. The reality is that stormwater still needs to be cleaned, and it will take a lot of money to do so. Without a significant change in attitudes and practices, improving water quality will continue to be costly, litigious and sometimes frustrating.

I believe that a collaborative, comprehensive and patient approach to water quality is the answer. To accomplish long-term goals for clean water, our communities need to start working together. We need to balance science-based regulations with cost effectiveness. We need to start looking at water not in terms of whether it is potable water or stormwater, but through a more inclusive lens. After all, water does not recognize boundaries. It does not know if it is drinking water or wastewater, and we should not make the distinction either.

...continued on p. 8



# **PROTECTING OUR LAKES...**

Addressing Challenges And Providing Recreational Opportunities

Jim Hughes | Lake Aquatics Manager, County of Los Angeles Parks and Recreation

There are three major lakes in Los Angeles County: Castaic Lake, Santa Fe Dam, and Puddingstone Lake at Bonelli Park. These are full-contact recreational lakes, meaning that they are used for recreation activities involving body contact with the water, such as swimming, water-skiing and fishing. Combined, these lakes provide recreational opportunities for nearly 400,000 local residents and tourists annually. As Lake Aquatics Manager at Santa Fe Dam and Puddingstone Lake, my responsibilities include lake patrol and lifeguard services.

Puddingstone Lake was completed in 1928 and Santa Fe Dam was completed in 1978 by the Army Corps of Engineers. Swimming in both lakes immediately became popular, particularly during the warm summer months. The high density of swimmers, however, resulted in elevated bacteria levels that were potentially harmful to human health. In response, both lakes were closed to swimmers-Santa Fe Dam was closed from 1986-1987 and Puddingstone Lake from 1992-1997.

#### "Through a strict vehicle inspection program, Quagga mussels have been eradicated from the area."

- Jim Hughes, Lake Aquatics Manager, Frank G. Bonelli Regional Park

Santa Fe Dam's open-water chlorine-injection system was repaired in 1987 and this caused bacteria levels to decrease to safe levels that allowed the lake to reopen to swimmers the same year. A "Photozone" system was installed in 1989 to further disinfect the water and prevent high bacterial levels. In 1997, a chlorine system modeled after Santa Fe Dam's was constructed in Puddingstone Lake to make the water safe for swimmers. The chlorine systems in both Santa Fe Dam and Puddingstone Lake have been completely rebuilt and updated since their inception, with construction taking place during 1995 and 2009 at Santa Fe Dam and Puddingstone Lake, respectively.

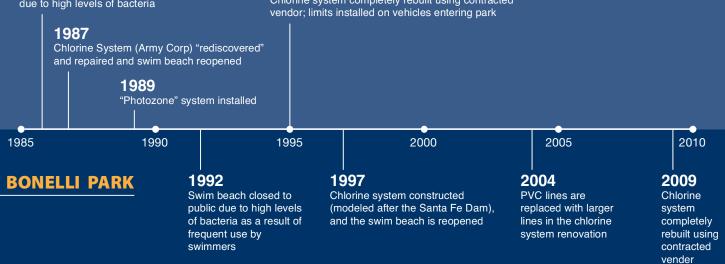


Santa Fe Dam swim beach closed to public due to high levels of bacteria

1995

Chlorine system completely rebuilt using contracted





Another challenge to the regional lakes was the discovery of Quagga and Zebra Mussels, both invasive species in the state. Quagga Mussels, which invaded Southern Californian lakes, are water filterers, meaning they remove suspended matter including plankton from the water. With clearer, filtered water, sunlight reaches deeper into the lake, increasing vegetation growth and thereby altering oxygen levels. This, coupled with lower plankton levels, threatens fish populations. Quagga Mussels also have detrimental effects for swimmers and boaters. These mussels clog piping structures (Figure 1), compromising the chlorination system and increasing the risk of high bacteria levels. They can also harm boat engines and increase drag.

Through a strict vehicle inspection program, however, the mussels have been eradicated from the area. Before launching, boats are thoroughly inspected and must be clean, drained and dry to prevent contamination. In Bonelli Park and Santa Fe Dam, 20 vessels were denied launch in 2010 and nine in 2011. As of June 30, 2011, there were no mussels found on any vehicle entering either lake.

Both lakes are currently safe for swimmers, and Lake Lifequards continue to provide crucial services. Lifequards conduct land operations, including ground-based emergency response and rescues for hikers throughout the Parks. They are also trained in swift-water rescue, marine firefighting, scuba diving, and law enforcement, issuing hundreds of citations annually as boating safety officers. With the lakes now safe for swimmers, lifeguards work to prevent drowning and keep these swimmers protected.



FIGURE 1. ABS pipe covered with quagga mussels. Photo courtesy of California Department of Fish and Game.

#### **RB-AR4705**

# **Assessing Watershed**

The Department of Agriculture (USDA)

There are nearly 17 million people living and working within an hour's drive of Angeles National Forest, the most urban National Forest in the country. With so much urbanization in the surrounding area, the Forest offers a welcome relief. It provides over 70% of the open space in Los Angeles County and welcomes 3.5 million visitors annually. The Forest provides recreation, including hiking, camping, and fishing, and is also home to nine federally listed Threatened or Endangered plant and animal species.

My focus, however, is on the Forest's connection to the local watersheds. The 650,000 acres of land in the Angeles National Forest are spread across four major watersheds: the Los Angeles River, Mojave River, Santa Clara River, and San Gabriel River. The Forest is the source of nearly a third of the water in the Los Angeles basin.

On June 3, 2011, United States Department of Agriculture (USDA) Secretary Tom Vilsack announced the release of the Watershed Condition Framework (WCF), the agency's first national assessment of all 193 million acres of National Forest lands. In the assessment, the USDA outlines its strategies to improve watershed and forest health and increase restoration through partnerships and interagency coordination. The WCF provides a science-based method to classify watershed conditions (ranging from "Impaired Function" to "Functioning Properly") and prioritizes watersheds for improvements. The WCF deviates from previous plans in that it focuses on implementing treatments at a watershed scale and as opposed to just at individual sties, it aims to preserve what is already working, and it deems partnerships and collaboration essential.

A healthy watershed is characterized as such based on five main criteria: high biotic integrity of habitat and species, the ability to recover quickly from disturbances, high degree of connectivity, the ability to provide ecosystem services such as high-quality water, and maintenance of long-term soil productivity.

For impaired watersheds, the WCF outlines a six-step process to improve their health. Based on existing data and knowledge, watersheds' baseline conditions were established in 2010,

# Health

## Watershed Condition Framework (WCF)

Lisa Northrop | Resource Officer, Angeles National Forest

and they were prioritized for restoration in 2011. The remaining four steps are to develop Action Plans that specify how each watershed will be improved, implement the projects beginning with high-priority watersheds, track the accomplishments, and monitor any changes in watershed conditions.

To assess the health of a watershed, the WCF created a plan based on the weighted average of aquatic and terrestrial physical and biological characteristics of the watershed as measured through 12 indicators. Watershed condition assessments throughout California indicated that there is a close link between recent wildfires and impaired watersheds, as well as a correlation between urban centers and impaired watersheds. In part because of the close proximity to Los Angeles, it was found that streams higher in the watershed (and thus farther from the urban center), were generally more functional and healthy.

Of the 11 sixth-level San Gabriel River subwatersheds located in the Angeles National Forest, only one, San Dimas Wash, received a score in the "Functioning Properly" range. Seven subwatersheds were categorized as "At Risk," and three, the Lower West Fork, Devils Canyon and Santa Fe Flood Control Basin, were classified as "Impaired Function." The Santa Fe Flood Control Basin received the highest, and therefore worst, score: 2.7 out of 3. There were no indicators in the functioning range, and water quality, aquatic biota, aquatic habitat, and soil were all listed as impaired.

The implementation of the WCF is an ongoing process and one that will serve to improve the quality of the regional watersheds and the health of the Angeles National Forest. To become a volunteer, involved person or partner in our efforts, please visit our website at http://www. fs.fed.us/r5/angeles.

The full text of the Watershed Condition Framework is available at http://www.fs.fed.us/publications/watershed/ Watershed_Condition_Framework.pdf The State Of The San Gabriel River Watershed A five-year assessment

Over 1,236 miles of streams comprise the San Gabriel River Watershed, supporting more than 2.3 million people from the San Gabriel Mountains to the Pacific Ocean. In order to integrate and expand monitoring efforts in the San Gabriel River Watershed, the Council for Watershed Health and its partners created the San Gabriel River Regional Monitoring Program (SGRRMP) in 2004.

The SGRRMP is a watershed–scale program that provides a more complete and comprehensive assessment of watershed health. The SGRRMP addresses five questions of particular interest to watershed managers:

- 1. What is the condition of streams in the watershed?
- 2. Are conditions at areas of unique interest getting better or worse?
- 3. Are receiving waters near discharges meeting water quality objectives?
- 4. Is it safe to swim?
- 5. Are locally caught fish safe to eat?

Since 2005, the SGRRMP has monitored targeted and randomly selected sites throughout the watershed during the dry months of May through July. The monitoring is rigorous and sciencebased, and the SGRRMP has collected data from the mountainous upper watershed, the urbanized lower watershed, and the mainstream.

On July 20, 2011, the Council for Watershed Health hosted a State of the San Gabriel River Watershed Symposium in Whittier, California. The Symposium presented results from the State of the Watershed Report, which represents the culmination of five years of successful, cooperative monitoring by the SGRRMP. The Symposium speakers represented by local scientists, watershed managers and regulatory agencies addressed the five primary questions

Dr Kristy Morris, Senior Scientist at the Council for Watershed Health and Scott Johnson, Senior Scientist at Aquatic Bioassay and Consulting Laboratories inc. addressed the first question. Johnson discussed the results from 69 randomly selected sites that were monitored during the period 2005-2009. To assess surface water condition, each site was examined for chemicals of concern and toxicity and was evaluated based on its physical habitat and biological communities. The results showed that sites higher in the San Gabriel Mountains and farther from urban cities were comparatively more undisturbed and had healthier aquatic insect communities (Figure 1). These sites did, however, have higher water toxicity than the urbanized portions of the streams. Overall, Basin Plan objectives were typically achieved throughout the watershed. Dr. Eric Stein, Principal Scientist with the Southern California Coastal Water Research Project, did caution that more data over the next 15-20 years will be necessary to see trends and capture anomalies.

Karen Larsen, Deputy Director with the Office of Information Management and Analysis with the State Water Resources Control Board, answered the second of the five questions. Larsen discussed regional results of the statewide Surface Water Ambient Monitoring Program (SWAMP). Over the five-year period, three watershed habitats were studied and monitored to track how conditions changed over the years. However, there were no clear trends in either the upper or lower watershed. The California Rapid Assessment Method (CRAM) was also used, and this confirmed that conditions remained stable throughout the testing period, although the CRAM scores of the sites ranged from merely moderate to poor.

Phil Markle, Environmental Scientist with the Sanitation Districts of Los Angeles County, talked about question three. This five-year report studied the impact of effluents from five publicly owned treatment facilities discharging into the San Gabriel River. Markle indicated that all nutrients, metals and organics tested fell within the Basin Plan thresholds, meaning they can be regarding as safe for human and aquatic life. E. Coli concentrations, however, were higher than California standards, though below the discharges the concentrations decreased below the standards due to the dilution by effluents. Diazinon, a pesticide banned by the EPA, was observed in a few samples, and ammonia levels exceeded standards before the implementation of nitrification/denitrification in 2003.

Bernard Franklin, Chief Environmental Health Specialist with the Los Angeles County Environmental Health - Recreational Waters Program, Jim Hughes, Lake Aquatics Manager for the Frank G. Bonelli Regional Park with the County of Los Angeles Parks and Recreation, and Lisa Northrop, Forest Resources Officer with Angeles National Forest, addressed question four. They spoke about the human health impacts of swimming in regional streams and lakes. A bacteria monitoring program implemented in 2007 assesses the safety of the watershed. E. Coli levels were tracked between May through September, 2007-2009, in eight popular swimming locations in the upper watershed. While these levels were usually below California standards, on weekends or holidays with high recreational use, the standards were occasionally exceeded. The EPA is currently reviewing alternative technologies and methodologies to detect and quantify bacteria levels and identify sources of contamination.

#### ...continued on p.8

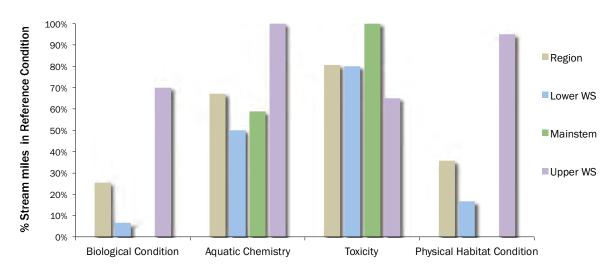


FIGURE 1. Percentage of stream miles within an acceptable biological condition.

#### ...continued from p.1 CLEANING UP OUR ACT

Already, groups in the greater Los Angeles area have taken concrete steps to address water issues in a more unified way. The San Gabriel Valley Council of Governments, for example, has merged its subcommittees into one working group to focus on a more comprehensive approach to water resources.

Yet even with similar changes throughout the region, the problem of costs will not disappear. With a more integrated program, however, the Los Angeles basin can work together instead of competing with neighboring cities for funding. The anticipated regional support for the 2013 Los Angeles County Flood Control District's Water Quality Funding Initiative, to support the development of watershed plans, educational programs and water quality monitoring, is a step in the right direction.

While collaboration is the key to moving forward, the road will not be easy. Non-governmental organizations and environmentalists may have to sacrifice their desire for rapid regulation implementation and instead settle for slower progress to ensure effective compliance by all parties. Cities and counties may have to sacrifice some degree of economic growth to be sure that environmental preservation receives the focus it deserves. Everyone must do his or her part, and everybody must be willing to give a little. If our strategies to tackle water issues in Southern California reflect a more integrated and collaborative approach, then we will be able to deliver on our promises of respecting our resources and improving watershed health.

#### ...continued from p.7

#### STATE OF THE SAN GABRIEL

Finally, Michael Lyons, Environmental Scientist with the Los Angeles Regional Water Quality Control Board, answered the final question regarding the safety of fish in the watershed. The levels of mercury, selenium, total DDTs and total PCBs were analyzed and compared to state standards. The results showed that while tilapia, red ear sunfish, and bluegill had contaminant levels under state standards, other species' contaminants exceeded the safe levels. Largemouth bass and common carp from Puddingstone Lake and Santa Fe Dam had higher levels of mercury, and largemouth bass, common carp, and striped mullet from the Upper Estuary had PCB concentrations high enough for the SGRRMP to recommend people limit their consumption to one meal a week. The SGRRMP plans to continue the bioaccumulation program to gather more data regarding fish safety.

In the next five-year period, from 2010 to 2014, the SGRRMP plans to continue its monitoring, specifically examining mercury levels in fish tissues, PBDEs (flame retardants) in watershed sediments, and the recovery of the areas burned by the 2009 Morris fire. The SGRRMP will also begin to conduct trash assessments at monitoring sites. While the SGRRMP has already begun working on these future projects, the July Symposium provided an opportunity to reflect on the past five years and to share results to the five central questions.

You can find the complete report at our website: www. watershedhealth.org.



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Treasurer Division Two

THE WATER REPLENISHMENT DISTRICT





Division Five







# In the News...

Excerpt from Pasadena Star News Article titled "San Gabriel River gets good grade despite signs of stress" from July 20, 2011

"Although conditions of the San Gabriel River are better than expected, some swim areas have high bacteria counts and fish caught at Santa Fe Dam and Puddingstone Lake contain trace amounts of mercury, according to a report released Wednesday."

"From 2005 to 2009, samples taken from more than 220 sites along the river stretching from the San Gabriel Mountains to the Pacific Ocean showed a healthy river habitat in the undisturbed upper portions but increasingly impaired habitat in the middle and lower portions that traverse an area populated by more than 2.3 million people."

- Steve Scauzillo





>> Martin Por BBAR4712

San Gabriel Valley Council of Governments

1000 S. Fremont Ave. Unit 42, Alhambra, California 91803 Phone: (626) 457-1800 FAX: (626) 457-1285 E-Mail SGV@sgvcog.org

DATE: December 21, 2011

## 01-05-12P05:53 RCVD

TO: Rod Gould, City of Santa Monica

FROM: Nicholas T. Conway, Executive Director

#### **RE:** LA Permit Group Technical Assistance

As you know, the Los Angeles Regional Water Quality Control Board (LARWQCB) is currently developing a new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). This permit establishes regulations related to stormwater discharges and requires implementation of the following programs:

- ✓ Public Information and Participation Program
- ✓ Industrial/Commercial Facilities Control Program
- ✓ Development Planning Program
- ✓ Development Construction Program
- ✓ Public Agency Activities Program
- ✓ Illicit Connections and Illicit Discharges Elimination Program

#### **Total Maximum Daily Load Compliance**

In the state of California, regional stormwater permits are developed and enforced under the Regional Water Quality Control Boards. Since 1996, the cities in Los Angeles County (with the exception of the City of Long Beach), unincorporated areas in Los Angeles County, and Los Angeles County Flood Control District have been covered under a county-wide Phase 1 MS4 NPDES permits. The most recent permit was issued in 2001. In 2011, the LARWQCB began the process of reissuing the MS4 NPDES permit containing all Los Angeles County municipalities with watershed-based chapters. The Regional Water Quality Control Board has indicated that the new permit will be issued to all parties as co-permittees and will not designate a principle permittee. The permit is tentatively scheduled for consideration in the spring of 2012.

The potential costs and the legal implications of the new permit are high, so the municipalities in Los Angeles County formed the LA Permit Group, in partnership with Regional Board Vice Chair Mary Ann Lutz, to develop a unified voice to participate in a collaborative negotiating process. To prepare for negotiations for the new permit, the LA Permit Group is seeking technical consulting services to assist in the negotiations for the new permit. The services desired include the following:

- 103. <u>Technical Assistance</u>
  - 103.1. Help to tie the technical sub-committees' proposals together
  - 103.2. Provide technical back-up (legal and examples of other permits) to substantiate negotiation points.
  - 103.3. Provide draft permit language based on negotiation points.
  - 103.4. Advise on negotiation and packaging strategy
- 104. Outreach and Consensus Building
  - 104.1. Outreach Plan
  - 104.2. Assist the LA Permit Group to engage stakeholders to build consensus and identify partnerships/supporter
  - 104.3. Assist the Negotiations Committee to develop talking points and provide advisement on how to approach the Regional Board, stakeholders, city management/elected officials, and area elected officials.
  - 104.4. Assist with outreach to other permittees to help build consensus

#### The Role of SGVCOG

In October 2011, the LA Permit Group asked the San Gabriel Valley Council of Governments to assist in developing a public procurement process to attain a technical consultant and to collect the funds necessary to support the contract. At the November 2nd, 2011 meeting of SGVCOG's City Manager Steering Committee, they recommended that the COG assess each jurisdiction in the San Gabriel Valley COG and Los Angeles County a flat-fee not to exceed \$5,000. Because every city in Los Angeles County will be heavily impacted by this permit and will benefit from the services that the Consultant is providing, the Steering Committee also recommended that the SGVCOG undertake an extensive outreach effort to collect a fee of \$5,000 from those jurisdictions that are outside of the San Gabriel Valley that are also co-permittees on the new permit. The Steering Committee's recommendation was unanimously approved by the SGVCOG Governing Board at its November 17, 2011 meeting. This letter is the beginning of this outreach effort. The fee collected will only be used to cover the cost of this contract, and the SGVCOG will not receive any portion of the collected funds. If the amount of money collected exceeds the amount of the contract, each jurisdiction will be reimbursed a pro-rata share of the cost.

#### Next Steps

The Technical Assistance RFP was released on Friday, November 18th and proposals were due on Monday, December 5th. The LA Permit Group selected Larry Walker Associates as the technical assistant consultant due to their proven track record and knowledge on the permit process.

We are asking interested jurisdictions to submit a payment of \$5,000 to fund this technical assistance consultant for the LA Permit Group. Due to the short timeline for the project, we are asking cities to notify us of their interest as soon as possible. To indicate your interest, I have attached an *Intent to Participate* letter (Attachment 1). To support your accounting, I have also attached an invoice for \$5,000 (Attachment 2).

If your jurisdiction is interested in participating, please return the attached *Intent to Participate* by **Friday**, **December 30th**. Please submit your payment by **Tuesday**, **January 17th**. If you have any questions, please contact me at (626) 457-1800.



# San Gabriel Valley Council of Governments

1000 S. Fremont Ave., Unit 42, Alhambra, CA 91803 Phone: (626) 457-1800 FAX: (626) 457-1285 E-Mail SGV@sgvcog.org

#### **City Managers' Steering Committee**

February 8th, 2012

11:00 a.m.

El Monte City Hall City Managers' Conference Room 11333 Valley Boulevard El Monte, CA

- 1.0 Preliminary Business
- 2.0 Public Comment
- 3.0 Changes to Agenda Order; Identify Subsequent Need or Emergency Items
- 4.0 Consent Items
  - 4.1 Revised Minutes from December 7th, 2011 meeting Page 1
  - 4.2 Minutes from January 4th, 2012 meeting Page 3
- 5.0 Regular Business Items (It is anticipated that the Committee may take action on the following items)
  - 5.1 Clarification of City Managers' Steering Committee Recommendation Regarding ACE Phase II Confirm City Managers' Steering Committee action regarding ACE Phase II that occurred at the December 2011
  - 5.2 Role of City Managers' Steering Committee in Providing Financial Oversight to SGVCOG and ACE Page 5 Discuss role of City Managers' Steering Committee relative to providing financial oversight to SGVCOG and ACE activities, as identified in the SGVCOG bylaws
  - 5.3 Role of SGVCOG's Accountant/Auditor in Providing Financial Oversight to SGVCOG and ACE Discuss role of the SGVCOG's Accountant/Auditor relative to providing financial oversight to SGVCOG and ACE activities, as identified in the SGVCOG bylaws
  - 5.4 ACE 2nd Quarter Financial Report / Mid-Year Budget Revision Page 7 Review draft ACE Mid-Year Budget Report and recommend approval to SGVCOG Governing Board
  - 5.5 ACE FY 2010-2011 Financial Audit Report and Management Letter Page 17 Review the draft FY 2010-2011 financial audit and recommend approval to the Governing Board.
  - 5.6 SGVCOG 2nd Quarter Report / Mid-Year Budget Revision Page 50 Review draft SGVCOG Mid-Year Revision and recommend approval to SGVCOG Governing Board
  - 5.7 SGVCOG FY 2010-2011 Financial Audit Report and Management Letter Page 55 Review the draft FY 2010-2011 financial audit and recommend approval to the Governing Board.
  - 5.8 Draft SGVCOG Organization and Operation Review
     Discuss draft SGVCOG Organization and Operation review and possible recommendation to Governing Board
     5.9 ACE Financial Advisor Services Contract
  - 5.9 ACE Financial Advisor Services Contract Discuss recommendation to SGVCOG Governing Board regarding ACE Financial Advisor Services Contract
     5.10 Caltrans Audit Appeal - Page 110
  - Discuss recommendation to SGVCOG Governing Board regarding Caltrans settlement 5.11 SGVCOG Strategic Plan Update – Page 112
  - Discuss updated SGVCOG Strategic Plan for January July 2012 5.12 Ontario Airport – Page 120
  - Discuss City of Ontario's proposal regarding future management of Ontario Airport and a possible position by the SGVCOG
- 6.0 New Business items for Next Regular Meeting
- 7.0 Announcements
- 8.0 Next Meeting
- 9.0 Adjourn

Please RSVP at mcreter@sgvcog.org or at (626) 457-1800 For TAC Meeting Notice and Minutes, Please access <u>www.sgvcog.org</u> NOTICE: City Clerks please post this notice (agenda)

Written materials relating to an item on any Regular Meeting Agenda of the this Committee of the San Gabriel Valley Council of Governments that are distributed to the Committee within 72 hours of the Meeting will be available for public inspection at the San Gabriel Valley Council of Governments, 1000 S. Fremont Ave., Unit 42, Bldg. A10, Suite 210, Alhambra, CA 91803 during normal business hours.



# San Gabriel Valley Council of Governments

1000 S. Fremont Ave., Unit 42, Alhambra, CA 91803 Phone: (626) 457-1800 FAX: (626) 457-1285 E-Mail SGV@sgvcog.org

#### City Managers' Steering Committee

Minutes Date: December 7th, 2011 Time: 12:00 noon Location: El Monte City Hall

#### 1.0 Preliminary Business

The meeting was called to order at 12:05 p.m.

#### **Members Present:**

Alhambra . Covina . Glendora . La Canada Flintridge . Rosemead . Walnut .

J. Fuentes D. Parrish C. Jeffers M. Alexander J. Allred R. Wishner

#### COG Staff:

N. Conway, Executive Director M. Creter, Staff

#### **Public:**

J. Ballas, Industry R. Bates, Pico Rivera A. Cervantes, Pico Rivera A. Eskandari, Pomona L. Lowry, Pomona R. Richmond, ACE P. Hubler, ACE C. Sutton, Excalibur Property Holdings **2.0 Preliminary Business** 

#### 3.0 Public Comment

There were no comments from the public.

#### **4.0 Changes to Agenda Order; Identify Subsequent Need or Emergency Items** There were no changes to the agenda order.

#### 5.0 Consent Items

5.1 Minutes from November 2nd, 2011 meeting There was a motion to approve the consent of

There was a motion to approve the consent calendar (M/S/C: R. Bobadilla / R. Wishner / Unanimous).

#### 6.0 Regular Business Items

6.1 ACE Phase II

There was extended discussion on this item.

There was a motion recommend to the Transportation Committee funding of the top eight projects – after removing project alternatives for the same grade crossing – (Fullerton Road, Montebello-Greenwood, Hamilton Boulevard, Fairway Drive (Alh), Turnbull Cyn Road (LA), Fairway Drive (LA),Puente Ave. (Alh), and Durfee Ave. (LA) ) as ranked by the SGVCOG's ACE Phase II Subcommittee; should additional funds be available, from State, Federal or local sources, additional projects should be funded according to the rank order as developed by the Subcommittee (M/S/C: R. Wishner / J. Fuentes / Ayes: Covina, Glendora, Rosemead; Noes: La Canada Flintridge).

#### Members Absent: Diamond Bar San Dimas San Gabriel San Marino West Covina

### Page 1 of 151

There was a motion to recommend to the Transportation Committee that ACE submit project schedules and budgets for all active Phase II projects prior to commencing further work (M/S/C: J. Fuentes / R. Wishner / Unanimous / Abstain: La Canada Flintridge).

The Committee also requested that ACE work with the impacted cities to revisit potential pedestrian safety improvements for all 34 grade crossings.

There was discussion regarding the staff recommendation to require that jurisdictions share in the funding of any cost overruns. No action was taken and this item was tabled.

6.2 Los Angeles Regional Water Quality Control Board (LARWQCB) Staff Assistance

The Executive Director provided an update on efforts to secure funding to continue providing technical staff assistance to Mayor Mary Ann Lutz, Vice-Chair and Municipal Government Representative on LARWQCB. He indicated that he would be bringing a recommendation to the Governing Board to contribute \$7,500 in funding towards this position.

- 6.3 San Gabriel Valley NPDES/Stormwater MS-4 Permit Coordination The Executive Director gave a brief update on the status of the MS-4 LA Permit Group Technical Assistance RFP and funding commitments from cities.
- 6.4 SGVCOG Organization and Operation Review The Executive Director indicated that staff, Governing Board and Committee Chair interviews had been completed in November and that a draft report is anticipated in January.

#### 7.0 New Business items for Next Regular Meeting

#### 8.0 Announcements

There were no announcements.

#### 9.0 Next Meeting

The next meeting is scheduled for January 4th.

#### 10.0 Adjourn

The meeting was adjourned at 1:30 p.m.



# San Gabriel Valley Council of Governments

1000 S. Fremont Ave., Unit 42, Alhambra, CA 91803 Phone: (626) 457-1800 FAX: (626) 457-1285 E-Mail SGV@sgvcog.org

#### City Managers' Steering Committee

Minutes Date: January 4th, 2011 Time: 12:00 noon Location: El Monte City Hall

#### 1.0 Preliminary Business

The meeting was called to order at 12:05 p.m.

#### **Members Present:**

Alhambra	J. Keating
Covina	D. Parrish
Diamond Bar	J. DeStefano
El Monte	J. Enriquez
Glendora	C. Jeffers
La Canada Flintridge	M. Alexander
Walnut	R. Wishner

#### COG Staff:

N. Conway, Executive Director M. Creter, Staff

#### **Public:**

R. Richmond, ACE H. Choy, LA County

#### 2.0 Public Comment

There were no comments from the public.

#### **3.0 Changes to Agenda Order; Identify Subsequent Need or Emergency Items** There were no changes to the agenda.

#### 4.0 Consent Items

- 4.1 Minutes from December 7th, 2011 meeting
  - There was a request to revise the minutes:

The sentence was "There was a motion to recommend to the Transportation Committee that ACE submit full project schedules and budgets for all Phase II projects prior to commencing further work (M/S/C: J. Fuentes / R. Wishner / Unanimous / Abstain: La Canada Flintridge)." changed to read "There was a motion to recommend to the Transportation Committee that ACE submit project schedules and budgets for all active Phase II projects prior to commencing further work (M/S/C: J. Fuentes / R. Wishner / Unanimous / Abstain: La Canada Flintridge)." La Canada Flintridge)."

The sentences "There was discussion regarding the staff recommendation to require that jurisdictions share in the funding of any cost overruns. This item was tabled for later discussion." were changed to read, "There was discussion regarding the staff recommendation to require that jurisdictions share in the funding of any cost overruns. No action was taken, and this item was tabled."

There was a motion to approve the minutes as amended (M/S/C: C. Jeffers / R. Wishner / Unanimous).

#### 5.0 Regular Business Items

5.1 Local Government Sustainable Energy Coalition

H. Choy (LA County) provided a brief presentation on the LGSEC and the benefits of membership.

The City Managers' Steering Committee recommended to the Governing Board submitting a membership application to the Local Government Sustainable Energy Coalition (LGSEC) and authorizing the expenditure

#### Members Absent:

Rosemead San Dimas San Gabriel San Marino West Covina of \$10,000 that is currently budgeted for Federal Advisory services for annual membership fees (M/S/C: C. Jeffers / J. Keating / Unanimous).

5.2 SGVCOG and ACE FY 2010-2011 Financial Audit Reports

The Executive Director indicated that this item had been pulled from agenda, as the SGVCOG's financial auditor has not completed all of the necessary work.

#### 5.3 Status of Caltrans Audit

The Executive Director gave a brief overview of the correspondence from Caltrans regarding status of audit, including outstanding reimbursement still being requested.

#### 5.4 ACE IRS Audit Report

R. Richmond provided an update on IRS ACE Audit. He indicated that ACE had received a "not action" letter from the IRS.

The Committee members requested that a discussion on ACE's contract for financial advisory services be agendized for a future meeting.

- 5.5 San Gabriel Valley NPDES/Stormwater MS-4 Permit Coordination The Executive Director provided an update on the effort to assist LA Permit Group cities in securing technical assistance for the negotiation of the new MS-4 permit.
- 5.6 Los Angeles Regional Water Quality Control Board (LARWQCB) Staff Assistance The Executive Director provided information on the staff recommendation to the Governing Board to authorize an expenditure of \$7,500 to continue providing technical staff assistance to Mayor Mary Ann Lutz, Vice-Chair and Municipal Government Representative on LARWQCB.
- 5.7 Status of SGVCOG Organization and Operation Review D. Parrish update on the SGVCOG's Organization and Operation review.

#### 6.0 New Business items for Next Regular Meeting

The Executive Director indicated that he would be bringing a proposal to re-instate small business services in the San Gabriel Valley at a future meeting.

The Committee members requested that an action item regarding ACE's financial services be agendized for the next week as well as discussion on the Steering Committee's role related to financial oversight of ACE.

#### 7.0 Announcements

#### 8.0 Next Meeting

#### 9.0 Adjourn

The meeting was adjourned at 1:10 p.m.



Date: January 24, 2012

To: City Managers' Steering Committee

From: Nicholas T. Conway, Executive Director

Re: Legal Clarification of Financial Oversight Duties and Responsibilities

At your January 4th committee meeting, several members asked, once again, for clarification from the COG General Counsel regarding the Steering Committee's role and responsibilities with respect to oversight of financial matters involving the COG's Alameda Corridor-East Construction Authority. The COG Attorney will be in attendance to discuss the four citations listed below and answer any additional questions from the committee members relating to this matter.

#### Background

Article VI, Section B, of the San Gabriel Valley Council of Governments' Bylaws sets forth the duties and responsibilities of the City Managers' Committee, along with the COG Treasurer/Auditor, regarding both ACE and the COG financial matters.

B. Steering Committee. There shall be a Steering Committee of the CMTAC, designated by the CMTAC, to provide assistance and support to the full CMTAC, the Governing Board and/or the Executive Committee and to oversee certain policy and financial matters for the Council. The Chair of the CMTAC shall also chair the Steering Committee.

The Steering Committee shall meet at least quarterly. A quorum of the Steering Committee shall be forty percent (40%) of its membership and all actions will be by a majority of those members present with a quorum in attendance. All meetings of the Steering Committee shall be held in accordance with the Ralph M. Brown Act. (Government Code Section 54950 <u>et seq.</u>)

The Steering Committee shall: together with the Treasurer/Auditor and with the assistance of the ACE Construction Authority, recommend the independent auditor for the annual audit of the Council and the ACE Construction Authority, develop the scope of work for the audit, and review and comment on the preliminary and final audit reports prior to their presentation to the ACE Construction Authority and the Governing Board; oversee the investment of Council funds in accordance with the Council's investment policy; review and modify the Council's investment policy when required; review, as necessary, those insurance policies purchased for the benefit of the Council including policies purchased by consultants working for the Council; monitor compliance of the

Council with applicable federal, state and locals laws, ordinances, statutes, codes and regulations; and undertake those additional assignments as directed by the Governing Board. The Steering Committee shall also review and monitor all matters related to the Council's and the ACE Construction Authority's financial affairs including reviewing quarterly financial reports, audits conducted by external auditors and agencies, grant compliance and bond issuance as well as any matters related to best management practices or state/federal requirements.

At the January 18th meeting of the Finance Directors subcommittee, there was, again, questions raised regarding the role and responsibilities of the SCVCOG Treasurer/Auditor.

Bylaws

"G. Treasurer and Auditor. Pursuant to Government Code Section 6505.6, the Treasurer of the Council and the Auditor of the Council shall be the same person and shall be a contract employee of the Council. The Treasurer/Auditor shall not be an officer of the Council. The duties and responsibilities of the Treasurer/Auditor are:

1. The Treasurer/Auditor shall possess the powers described in, and shall perform those functions required by: Government Code Sections 6505, 6505.5 and 6505.6; all other applicable laws and regulations, including any subsequent amendments thereto; the Agreement; these Bylaws; and/or the direction of the Governing Board .

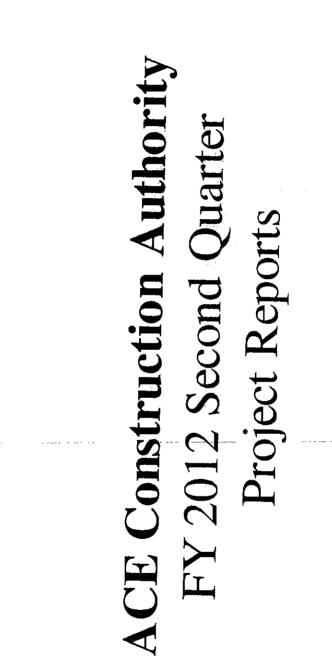
2. The Treasurer/Auditor shall have custody of all Council and ACE Construction Authority funds and shall provide for strict accountability thereof in accordance with Government Code Section 6505.5 and other applicable laws.

3. <u>The Treasurer/Auditor shall annually cause an independent audit to be made of</u> the Council and of the ACE Construction Authority by a single certified public accountant or by separate certified public accountants, in accordance with Government Code Sections 6505 and 6505.6.

Council Treasurer (JPA)

Section 14. Council Treasurer. The person holding the position of Treasurer of the Council shall have charge of the depositing and custody of all funds held by the Council. The Treasurer shall perform such other duties as may be imposed by provisions of applicable law, including those duties described in Section 6505.5 of the Government Code, and such duties as may be required by the Governing board. The Council's Auditor shall perform such functions as may be required by provisions of applicable law, this Agreement, the Bylaws and by the director of the Governing Board.

The COG's Accountant/Auditor directs the external audits of both COG and ACE. In that capacity, he should be provided the drafts and final audit reports along with any management letters prior to distribution to COG Governing Board and ACE Construction Authority.



Draft

As of December 31, 2011

#### **RB-AR4723**

#### EXHIBIT I - ACE REVENUE BY SOURCE As of December 31, 2011

Grant		Authorized	Adjustments	Note	Net Authorized	Allocated	<b>n</b> . •
Federal				NOLE	Autonzeg	To Projects	Surplus
TEA - 21	Sect 1017	2,205,000	(126 323)		D 010 000		
TEA - 21	Sect 1138	17,250,000	(136,333)	b	2,068,667	2,063,683	4,9/
TEA - 21	Sect 1533		•		17,250,000	17,250,000	-
TEA - 21	Sect 198	100,000,000	(570 760)		100,000,000	100,000,000	-
TEA - 21	5ect 0491	9,562,500	(572,760)		8,989,740	8,989,740	-
Hiway Fund FY 01	36610451	6,500,000	[402,000]	a	6,098,000	6,098,000	-
NCPD FY 2000		1,500,000	(3,300)	ь	1,496,700	1,496,700	-
NCPD FY 2001		1,240,000			1,240,000	1,240,000	-
NCPD FY 2002		2,400,000	(2,565)	ь	2,397,435	2,397,435	-
		4,000,000	(116,000)	b	3,884,000	3,884,000	-
NCPD FY 2003		1,495,000	(10,000)	b	1,485,000	1,485,000	-
NCPD FY 2004		2,000,000	(119,163)	Ъ	1,880,837	1,880,837	
STP FY 2006		4,200,000	(42,000)	ь	4,158,000	4,158,000	-
STP FY 2009		570,000	•		570,000	570,000	
SAFETEA-LU FY 05	Sect 1701	2,528,000	(378,937)	с	2,149,063	2,149,063	_
SAFETEA-LU FY 06	Sect 1701	2,528,000	(378,635)	c	2,149,365	2,149,365	
SAFETEA-LU FY 07	Sect 1701	2,528,000	(375,781)	с	2,152,219	2,152,219	
SAFETEA-LU FY OB	Sect 1701	2,528,000	(375,781)	с	2,152,219	2,152,219	-
SAFETEA-LU FY 09	Sect 1701	2,528,000	(374,889)	C	2,153,111	2,153,111	-
SAFETEA-LU FY 05	5ect 1934	3,000,000	(450,000)	c	2,550,000	2,550,000	•
SAFETEA-LU FY 06	Sect 1934	6,000,000	(900,000)	c	5,100,000		•
SAFETEA-LU FY 07	5ect 1934	7,500,000	(1,125,000)	c	6,375,000	5,100,000	-
SAFETEA-LU FY 08	Sect 1934	7,500,000	(1,125,000)	c	6,375,000	6,375,000	-
SAFETEA-LU FY 09	5ect 1934	6,000,000	(900,000)	c	. ,	6,375,000	-
SAFETEA-LU FY OS	Sect 1301	3,125,000	(247,763)	c	5,100,000	5,100,000	-
SAFETEA-LU FY 06	Sect 1301	6,250,000	(495,526)	c	2,877,237	2,877,237	•
SAFETEA-LU FY 07	Sect 1301	7,812,500	(619,407)		5,754,474	5,754,474	-
SAFETEA-LU FY 08	5ect 1301	7,812,500		с -	7,193,093	7,193,093	•
SAFETEA-LU FY 09	5ect 1301	6,250,000	(619,407) (405 53c)	C	7,193,093	7,193,093	
FRA		2,544,100	(495,526)	C	5,754,474	5,754,474	-
ISTEA (Nogales-LA)			•		2,544,100	2,185,000	359,10
CMAQ (Nogales-LA)		6,936,147	•		6,936,147	6,936,147	
	Subtotal	6,347,000	-		6,347,000	6,347,000	-
State		242,639,747	(10,265,773)		232,373,974	232,009,890	364,08
ITIP							
		39,000,000	(18,426)	d	38,981,574	38,981,574	-
PUC (Brea Canyon)		5,000,000	-		5,000,000	5,000,000	-
TCRP		150,000,000	(19,700,000)	е	130,300,000	130,300,000	_
Prop 1B - HRCSA (No	gales-LA}	25,600,000	•		25,600,000	25,600,000	
TCIF (SG Trench)		336,600,000	-		336,600,000	336,600,000	
	Subtotal	556,200,000	(19,718,426)		536,481,574	536,481,574	
ocal			· · · · · · · · · · · · · · · · · · ·	-	0001102,074	330,481,374	
MTA 1 (FY 98-02)	C 25%	37,500,000	(23,360,000)				
MTA 2 (FY 03-05)	C 10%		(23,300,000)	f	14,140,000	14,140,000	•
MTA 2 (FY 03-05)	C 25%	1,857,000	-		1,857,000	1,857,000	•
		13,178,000	-		13,178,000	13,178,000	-
MTA 2 (FY 03-05)	A6 3090	9,308,000	-		9,308,000	9,308,000	-
MTA 2 (FY 03-05)	STIP-RIP	5,496,000	-		5,496,000	5,496,000	-
MTA 3 (FY 06-09)	C 25%	85,000,000	-		85,000,000	85,000,000	-
MTA 4 (FY 09-15)	C 25%-Remaining	28,565,800	-		28,566,800	28,566,800	
MTA 5 (FY 09-15)	C 25%-Supplemental	112,323,000	(9,978,000)	g	102,345,000	29,138,250	73,206,750
MTA 6 (Nogales-LA)	C 25%	28,849,000		•	28,849,000	28,849,000	/3,200,/30
MTA 7 (SG Trench)	Measure R	42,000,000	-	h	42,000,000		•
	Subtotal	364,077,800	(33,338,000)	"		42,000,000	<u> </u>
ther Sources			(33,338,000)		330,739,800	257,533,050	73,206,750
Railroad (UPRR/Metro	alinki	21.021.000					
Cities (Nogales-LA)	2 million (	31,921,000	-	i	31,921,000	17,500,000	14,421,000
		9,600,000	-		9,600,000	9,600,000	
Betterments (Cities/N	(etrolink)	17,773,575	-		17,773,575	17,084,825	688,750
MWO (Brea Canyon)		2,207,402			2,207,402	2,207,402	000,750
	Subtotal	61,501,977			61,501,977	46,392,227	15,109,750
OTAL GRANTS		1,224,419,524	(63,322,199)		1,161,097,325	·	
ther Income						1,072,416,741	88,680,584
Property Rental Incom		34,291	-		34,291	-	34,291
Net investment incom		<u>.</u>	-	-	-	•	
	Subtotal	34,291			34,291		24 201
			· · · · · · · · · · · · · · · · · · ·				39.791
DTAL ACE Construction	on	1,224,453,815	(63,322,199)		,161,131,616	1,072,416,741	34,291 88,714,875

Notes:

a) Transferred by LA County to ACE for the Nogales-LA project.

b) Federal budgetary reduction.

c) Appropriations reduced by 15%.

d) Spiroprimities reactions of project closeout.
e) \$19.7 million programmed to other entitles (yet to be allocated by State).

f) Allocated to City of LA.

g) Adjustment made by MTA based on 17% of total project cost. h) An additional \$358M for the ACE Project is included in the voter approved Measure R program and is

An additional 555am for the Act Project is included in the total application and action of March 2010, expected to be available between Fiscal Years 2011 and 2019 per Metro Board action of March 2010. Based on individual projects, UPRR paid 1/2 before and 1/2 after construction phase.

\$30,921M committed by UPRR but due to phasing of construction, only \$13,459M has been received.

EXHIBIT II - ACE PROJECTS FUNDING BY SOURCE As of December 31, 2011 (\$ 000's)

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|             |                               | . 5                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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        -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         &lt;</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>n         Design<br/>ROW         (013)         4.556         1.1485         5.521         4.10         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500        
2.500         2.500         2.500         2.500         2.500         2.500         2.500         &lt;</td><td>Myn         Design<br/>(02)         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (137)         (137)         (148)         5,511         (10)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         <th(13)< th="">         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)</th(13)<></td><td>n         Design<br/>is tow<br/>income         456<br/>(22)         1,485<br/>(23)         5,521<br/>(23)         410<br/>(23)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(27)         2,507<br/>(27)         2,507<br/>(27</td><td>n         Design<br/>(12)         4,556<br/>(12)         1,1485<br/>(12,92)         5,521<br/>(14,12)         4,10<br/>(16,12)         2,500<br/>(12,12)         2,500<br/>(12,11)         2,500<br/>(12,12)         2,500<br/>(12,12)</td><td>n         Design<br/>bits<br/>in Nov<br/>site         456<br/>(127)         1,485<br/>(128)         5,521<br/>(128)         1,100<br/>(127)         4,55<br/>(128)         4,10<br/>(127)         2,500<br/>(128)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100</td><td>n         Design<br/>(0.2)         4.56<br/>(3.36)         1.131         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.303<br/>(3.36)         1.303</td><td>n         Design<br/>(13)         $4,556$ $1,191$ $\cdot$ $1,105$         &lt;</td><td>0.1         Design<br/>(13)         $4.56$<br/>(23)         1.181         $-$         410         $-$         2.000         $-$<td>0.         Design<br/>begin<br/>(12)         4,556<br/>(13)         1,131<br/>(13)         4,566<br/>(13)         1,148<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         1,105         1,105</td><td>n         Design<br/>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511</td><td>0         Delty<br/>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)<td>0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td><td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>Optime         (1)         456         (1)         456         (1)      
  456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td><td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td><td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td><td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0        
0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td></td></td></td></th></td> | Design         (013)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - <th -<="" <="" td=""><td>Design         (113)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -<!--</td--><td>Won         Design         (013)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Design         (013)         4.556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Design         (13)         4,556         1,131         -         410         2,500         2,500         -         415         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -      
  -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         &lt;</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>n         Design<br/>ROW         (013)         4.556         1.1485         5.521         4.10         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         &lt;</td><td>Myn         Design<br/>(02)         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (137)         (137)         (148)         5,511         (10)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         <th(13)< th="">         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)</th(13)<></td><td>n         Design<br/>is tow<br/>income         456<br/>(22)         1,485<br/>(23)         5,521<br/>(23)         410<br/>(23)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(27)         2,507<br/>(27)         2,507<br/>(27</td><td>n         Design<br/>(12)         4,556<br/>(12)         1,1485<br/>(12,92)         5,521<br/>(14,12)         4,10<br/>(16,12)         2,500<br/>(12,12)         2,500<br/>(12,11)         2,500<br/>(12,12)         2,500<br/>(12,12)</td><td>n         Design<br/>bits<br/>in Nov<br/>site         456<br/>(127)         1,485<br/>(128)         5,521<br/>(128)         1,100<br/>(127)         4,55<br/>(128)         4,10<br/>(127)         2,500<br/>(128)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100</td><td>n         Design<br/>(0.2)         4.56<br/>(3.36)         1.131         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.303<br/>(3.36)         1.303</td><td>n         Design<br/>(13)         $4,556$ $1,191$ $\cdot$ $1,105$         &lt;</td><td>0.1         Design<br/>(13)         $4.56$<br/>(23)         1.181         $-$         410         $-$         2.000         $-$<td>0.         Design<br/>begin<br/>(12)         4,556<br/>(13)         1,131<br/>(13)         4,566<br/>(13)         1,148<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         1,105         1,105</td><td>n         Design<br/>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511</td><td>0         Delty<br/>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)        
(13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)<td>0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td><td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>Optime         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td><td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td><td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td><td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43      
  1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td></td></td></td></th> | <td>Design         (113)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -     
   -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -<!--</td--><td>Won         Design         (013)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Design         (013)         4.556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Design         (13)         4,556         1,131         -         410         2,500         2,500         -         415         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         &lt;</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td><td>n         Design<br/>ROW         (013)         4.556         1.1485         5.521         4.10         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         &lt;</td><td>Myn         Design<br/>(02)         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (137)         (137)         (148)         5,511         (10)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         <th(13)< th="">         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)</th(13)<></td><td>n         Design<br/>is tow<br/>income         456<br/>(22)         1,485<br/>(23)         5,521<br/>(23)         410<br/>(23)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(27)         2,507<br/>(27)         2,507<br/>(27</td><td>n         Design<br/>(12)         4,556<br/>(12)         1,1485<br/>(12,92)         5,521<br/>(14,12)         4,10<br/>(16,12)         2,500<br/>(12,12)         2,500<br/>(12,11)         2,500<br/>(12,12)         2,500<br/>(12,12)</td><td>n         Design<br/>bits<br/>in Nov<br/>site         456<br/>(127)         1,485<br/>(128)         5,521<br/>(128)         1,100<br/>(127)         4,55<br/>(128)         4,10<br/>(127)         2,500<br/>(128)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100</td><td>n
        Design<br/>(0.2)         4.56<br/>(3.36)         1.131         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.303<br/>(3.36)         1.303</td><td>n         Design<br/>(13)         $4,556$ $1,191$ $\cdot$ $1,105$         &lt;</td><td>0.1         Design<br/>(13)         $4.56$<br/>(23)         1.181         $-$         410         $-$         2.000         $-$<td>0.         Design<br/>begin<br/>(12)         4,556<br/>(13)         1,131<br/>(13)         4,566<br/>(13)         1,148<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         1,105         1,105</td><td>n         Design<br/>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511</td><td>0         Delty<br/>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)<td>0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td><td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>Optime         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td><td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0      
  0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td><td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td><td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000        
12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td></td></td></td> | Design         (113)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - </td <td>Won         Design         (013)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td> <td>Won         Design         (013)         4.556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td> <td>Won         Design         (13)         4,556         1,131         -         410         2,500         2,500         -         415         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         &lt;</td> <td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td> <td>Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -</td> <td>n         Design<br/>ROW         (013)         4.556         1.1485         5.521         4.10         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500        
2.500         2.500         2.500         2.500         2.500         2.500         2.500         &lt;</td> <td>Myn         Design<br/>(02)         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (137)         (137)         (148)         5,511         (10)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         <th(13)< th="">         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)</th(13)<></td> <td>n         Design<br/>is tow<br/>income         456<br/>(22)         1,485<br/>(23)         5,521<br/>(23)         410<br/>(23)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(24)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(26)         2,500<br/>(27)         2,507<br/>(27)         2,507<br/>(27</td> <td>n         Design<br/>(12)         4,556<br/>(12)         1,1485<br/>(12,92)         5,521<br/>(14,12)         4,10<br/>(16,12)         2,500<br/>(12,12)         2,500<br/>(12,11)         2,500<br/>(12,12)         2,500<br/>(12,12)</td> <td>n         Design<br/>bits<br/>in Nov<br/>site         456<br/>(127)         1,485<br/>(128)         5,521<br/>(128)         1,100<br/>(127)         4,55<br/>(128)         4,10<br/>(127)         2,500<br/>(128)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,500<br/>(120)         2,100<br/>(120)         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100</td> <td>n         Design<br/>(0.2)         4.56<br/>(3.36)         1.131         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.36)         1.10<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.465<br/>(3.36)         5.521<br/>(3.37)         1.100<br/>(3.36)         1.303<br/>(3.36)         1.303</td> <td>n         Design<br/>(13)         $4,556$ $1,191$ $\cdot$ $1,105$         &lt;</td> <td>0.1         Design<br/>(13)         $4.56$<br/>(23)         1.181         $-$         410         $-$         2.000         $-$<td>0.         Design<br/>begin<br/>(12)         4,556<br/>(13)         1,131<br/>(13)         4,566<br/>(13)         1,148<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         1,105         1,105</td><td>n         Design<br/>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511</td><td>0         Delty<br/>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)<td>0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td><td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>Optime         (1)         456         (1)         456        
(1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td><td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td><td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td><td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0        
0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td></td></td> | Won         Design         (013)         4,556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - | Won         Design         (013)         4.556         1,191         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - | Won         Design         (13)         4,556         1,131         -         410         2,500         2,500         -         415         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         < | Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - | Won         Perign         (13)         4,556         1,131         -         410         -         2,500         -         455         -         410         -         2,500         -         455         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -        
-         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         - | n         Design<br>ROW         (013)         4.556         1.1485         5.521         4.10         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         2.500         < | Myn         Design<br>(02)         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         4,55         (13)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (148)         5,521         (10)         (137)         (137)         (148)         5,511         (10)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137) <th(13)< th="">         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (137)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)         (130)</th(13)<> | n         Design<br>is tow<br>income         456<br>(22)         1,485<br>(23)         5,521<br>(23)         410<br>(23)         2,500<br>(24)         2,500<br>(24)         2,500<br>(24)         2,500<br>(24)         2,500<br>(24)         2,500<br>(26)         2,500<br>(26)         2,500<br>(26)         2,500<br>(26)         2,500<br>(26)         2,500<br>(27)         2,507<br>(27)         2,507<br>(27 | n         Design<br>(12)         4,556<br>(12)         1,1485<br>(12,92)         5,521<br>(14,12)         4,10<br>(16,12)         2,500<br>(12,12)         2,500<br>(12,11)         2,500<br>(12,12)         2,500<br>(12,12) | n         Design<br>bits<br>in Nov<br>site         456<br>(127)         1,485<br>(128)         5,521<br>(128)         1,100<br>(127)         4,55<br>(128)         4,10<br>(127)         2,500<br>(128)         2,500<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,100<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,500<br>(120)         2,100<br>(120)         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100         2,100 | n         Design<br>(0.2)         4.56<br>(3.36)         1.131         1.465<br>(3.36)         5.521<br>(3.36)         1.10<br>(3.36)         1.465<br>(3.36)         5.521<br>(3.36)         1.10<br>(3.36)         1.465<br>(3.36)         5.521<br>(3.36)         1.10<br>(3.36)         1.465<br>(3.36)         5.521<br>(3.37)         1.100<br>(3.36)         1.465<br>(3.36)         5.521<br>(3.37)         1.100<br>(3.36)         1.303<br>(3.36)         1.303 | n         Design<br>(13) $4,556$ $1,191$ $\cdot$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ $1,105$ < | 0.1         Design<br>(13) $4.56$<br>(23)         1.181 $-$ 410 $-$ 2.000 $                                                                                       -$ <td>0.         Design<br/>begin<br/>(12)         4,556<br/>(13)         1,131<br/>(13)         4,566<br/>(13)         1,148<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         5,211<br/>(14)         1,105<br/>(13)         1,105         1,105</td> <td>n         Design<br/>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511</td> <td>0         Delty<br/>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)<td>0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td><td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1  
      4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>Optime         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td><td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td><td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td><td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11   
     1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td></td> | 0.         Design<br>begin<br>(12)         4,556<br>(13)         1,131<br>(13)         4,566<br>(13)         1,148<br>(13)         5,211<br>(14)         1,105<br>(13)         5,211<br>(14)         1,105<br>(13)         5,211<br>(14)         1,105<br>(13)         5,211<br>(14)         1,105<br>(13)         5,211<br>(14)         1,105<br>(13)         5,211<br>(14)         1,105<br>(13)         1,105         1,105 | n         Design<br>(0.1)         4.556         1.13         1.465         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511 | 0         Delty<br>(13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         456         (13)         (14)         5511         (10)         2300         (13)         (14)         5511         (10)         2300         2307         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13)         (13) <td>0         0         456         1,13         -         1,05         5,23 
       -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05</td> <td>0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1</td> <td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td> <td>Optime         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)&lt;</td> <td>Derive<br/>base in<br/>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1</td> <td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td> <td>0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0</td> <td>Polymery<br/>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1.</td> <td>Derive<br/>in the<br/>manual<br/>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44  
      1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<><td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td><td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td><td>Incluing         Open         Open</td><td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td></td> | 0         0         456         1,13         -         1,05         5,23         -         1,0         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         1,05         -         -         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05         0,05 | 0         956         1.1         4.55         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1        
4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         4.65         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1         1.1 | 0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 | Optime         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         456         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)         (1)< | Derive<br>base in<br>solution         456         1.13         1.465         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.521         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.10         5.511         4.1 | 0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 | 0.         0.0000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0.000         0 | Polymery<br>(mod My/matrix)         456         1.05         5.20         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         5.00         1.00         1.00         1.00         1.00         1.00         1. | Derive<br>in the<br>manual<br>statis         1.45         1.43         1.43         1.43         1.43         1.43         1.43         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44         1.44 <t< td=""><td>Drive         Drive         <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11    
    1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<></td></t<> <td>0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000</td> <td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td> <td>0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0</td> <td>0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1</td> <td>Incluing         Open         Open</td> <td>0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<></td> | Drive         Drive <th< td=""><td>Derivation<br/>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11</td></th<> | Derivation<br>(model)         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.45         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11         1.11 | 0000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000      
  1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000         1.000 | 0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 | 0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 | 0         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 | Incluing         Open         Open | 0000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000         12000 <th1< td=""><td>0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4</td></th1<> | 0         1,4,5         1,4         5,5         1,4         5,5         1,4         5,5         1,4         1,4         5,5         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4         1,4 |

**RB-AR4724** 

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exhibit II - Ace projects funding by source

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									As of December 31, 2011	nber 31, 21	011									
									(\$ (	(\$ 000's)										
Project	Task	Fed #	Total	TEA-21	NCPD/STP	SAFETEA	TP TP	ISTEA/CMO	FRA/PIIC	TCOD	Sec. AL Mark	経済意識など	調査を見	通 注意報表	現時東方	1				10.000
											ardou	THIM	MIAZ	MIA3	MTA 4	MTA 5 &	MTA 5 A	MTA7 R	Raikoad Citie	Cities/Better
Baldwin	Desígn	(017)	5,209	3,013		•	753	,		1										
	ROW	(028)	40,942	•	'	24,890		1	I	ı		ı	ı	495	596	251	•		,	,
		n/a	26,857	2,373	570		1.043	. ,	F	,	•	•	I	9,382	2,500	4,170	•	1	,	,
Baidwin Tota	ā		73,008	5,386			1,797	ſ			. .	·   ·	•	0	-	2,685	-		,	'
Puente	Design	(034)	5.186											11975	961.5	2,106	·	-		
	ROW	e/u	-			9T7	•	•	ı	ŀ	1	•			28	4.836	,			
	Constr	n/a	ı		. ,	. ,		·	•	r	1	•	,	ı	•	ļ.	,			,
Puente Total	-		5,186	.	.	715	'		'		'	-	-		1				1	,
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Page 1 of 2

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Project Start-up/Misc Active Projects	Cost Estim	Cost Estimate (1997)	Cost Estimate (2006)	Allocated (Exhibit II) \$9,988	Better ments /Other	Railroad	Tota? Alfocated \$ 9,988	(TD Expenditures (Exhibit V) \$ 7,814	Estimate at ** Completion Exhibit (V	Variance (Allocated vs. Estimate at Completion)	Status
<ol> <li>Baldwin Avenue</li> <li>Fairway Drive (LA)</li> <li>Nogales South (LA)</li> <li>Nogales South (LA)</li> <li>Puente Avenue</li> <li>San Gabriel Trench</li> <li>Sunset Avenue</li> <li>Temple Avenue</li> <li>Brea Canyon</li> <li>East End/Reservoir</li> <li>Jum Start/Crossing</li> </ol>	<b>به</b> 	23,994 \$ N/A 24,307 24,307 N/A 198,205 22,259 35,985 35,985 26,571 56,571	<ul> <li>64,765 \$</li> <li>N/A</li> <li>N/A</li> <li>N/A</li> <li>N/A</li> <li>N/A</li> <li>N/A</li> <li>S0,202</li> <li>80,272</li> <li>64,401</li> <li>69,180</li> </ul>	<ul> <li>&gt; 73,008</li> <li>5,875</li> <li>91,658</li> <li>5,186</li> <li>407,699</li> <li>87,928</li> <li>91,580</li> <li>91,580</li> <li>67,396</li> <li>79,200</li> </ul>	\$ - \$ 2,925 6,434 6,507		\$ 73,008 5,875 5,875 5,116 5,116 94,362 94,362 91,580 91,580 73,903	36,291 1,374 1,376 1,776 44,142 86,607 88,191 67,394 78,960	\$ 85,207 \$ 5,875 97,058 5,875 498,485 87,892 92,120 67,396 67,396	(12,199) (5,400) (689) (90,786) 36 (540) (540)	<ul> <li>,199) Active</li> <li>PE only</li> <li>400) (Active</li> <li>(589) PE only</li> <li>(786) Active</li> <li>36 Active</li> <li>(540) (Active</li> <li>(540) (Active</li> <li>128 Closed</li> <li>128 Closed</li> </ul>
sarety/IRRIS 11 Nogales North (Ath) 12 <u>Ramona Blvd.</u> 5ubtotal	\$	61,000 39,636 14,489 503,017 \$	1	35,200 34,141 54,599 49,698 47,102 51,350 486,071 \$1 053 707 \$	1001 1,741	1,000	34,141 49,798 53,091	[	34,142 49,698 51,350	0 (I) (I)	<ul> <li>(1) Closed</li> <li>Closed</li> <li>Closed</li> </ul>
thacting Denio de					< /// /T	8,900	1,072,417 \$	\$ 567,432 \$	1,154,110	1,154,110 \$ (109,391)	
							•		-		
14 Proce Wills Done						-					
15 Turnbull Canvon Road											
16 Fairway Drive (Ath)											

ACE Projects Allocation vs. Actual Summary As of December 31, 2011 Exhibit III

(\$ 000's)

16 Fairway Drive (Alh)

950,000 \$ 1,400,000 Estimated Total Project Cost \$

\$ 1,161,097,325	1,072,416,741 \$88 580 594	+Oc'non'oor
Net Authorized	Allocated Available	

** Excludes Start-up/Misc of \$9,988M to agree with Exhibit-IV EAC.

Expenditure Forecast (Active Projects) Exhibit IV

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As of December 31, 2011

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	ITD	Actual	Budget Estimate ^A	nate ^A		Enracet			I	
	2010	2011	2012	+	2013	2014	2015		EAC	
Active Projects		7				1777		41 FY12	Change	Q2 FY12
Baldwin	34.3	1.2	ი. ი	1.6	р <i>СС</i>	ננר				
Fairway Drive (LA)		0.7	2.6	3.0	) , ( (	C.C2	ų.I	85.2		85.2
Nogales (LA)	4.7	12.6	17.4	7.1	79 F	0.05	( (	6.5 1	0.0	5.9
Puente Ave		0.6	2.9	100	2, 4 2, 1	27.72	13.3	96.7	0.4 °	97.1
san Gabriel Trench	25.4	16.3	35.1	212 272		1001		5.9	0.0	5.9
Sunset	76.6	9.4		) - ) 0	E.ENT	C.U81	139.0	498.5		498.5
Temple	85.9	2.3	2	r. T	6			88.8	-0-9 ⁻ 0	87.9
Completed Projects		ì			9.5			92.1		97 1
Brea Cyn	67.4									1
Crossing Safety/IRRIS	34.1	5						67.4		674
East End/Reservoir	78.9	00						34.1		34.1
Nogales (Alh)	49.7	2						79.0		79.0
Ramona	51.3	00						49.7		49.7
Inactive Projects		2						51.3		51.3
Fairway Drive (Alh)										)
Montebello Blvd										
Rose Hills Rd										
Turnbull Canyon Rd										
Total	508.5	43.1	67.6	43.1	171.6	233.7	154.7	1 15 <i>1</i> 5	L	
Note: Project forecasts include indirect cost.	indirect cost.							0.404.4	-u-	1,154.1

^A 2012 estimate includes mid-year adjustments ^B EAC includes 2012 estimate ^C \$400k utility relocations

^D (\$900k) construction savings

1/11/2012 2:06 PM

# ACE Expenditures vs. Reimbursements

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Reimbursement Status (\$ 000)

								4	
								Costs Requiring	
		D		Billed/Not		To Be	MTA	Caltrans	Unreim-
Projects	Expe	Expenditures	Received	Received		Billed	Retention	Approval	burseable
Baldwin	ŝ	36,291	\$ 35,418	; \$ 291	Ŷ	239	\$ 343 İ		1
Fairway Drive		1,374	287	,		1,084	n		
Nogales (LA)		19,694	17,828	1,940		(130)	- <u>-</u>		I
Puente Ave.		1,776	286	•		1,486	4		
SG Trench		44,142	41,247	2,278		443	175	,	ı
Sunset		86,607	84,387	1,456		618	146	,	I
Temple		88,191	87,529	31		9	625	·	I
Brea Canyon		67,394	67,401	28		(324)	289	ŀ	•
Crossing Safety / IRRIS		34,142	33,788	15		、 - '	338	I	
EE/Reservoir		78,960	78,711	14		ı	235		
Nogales (AH)		49,698	49,640	Υ		•		ı	I
Ramona		51,350	51,374	94		(233)	174	ı	
Uncollected Indirect Exp. '08-'11		1	-			. I	• , 	1 335	1
Sub-total Projects		559,618	547,897	6,151		3,129	2,441	1,335	
Project Administration		7,814	7,706	I		108		I	(191)
Total ACE	s S	567,432	\$ 555,602	\$ 6,151	ŝ	3,237	\$ 2,441	\$ 1,335	\$ (191)
Notes: 1 - Represents carriedforward amounts from '08 and '09 that will be applied to indirect cost plans for Fiscal Years '12 and '13.	edforward	amounts fr	om '08 and '09	that will be a	applie	d to indirect co	st plans for Fis	cal Years '12 ar	

Fructure Avenue Frainway Dive (LA) Montabelio Bivd. Fainway Dive (Alh) Turnbut Canyon	

	estments	\$ 225,640 91,779 * 2,423,430 2,740,849	1,561,670 10,340,336 11,902,006	6,151,014 3,237,493 2,441,482 1,334,784 27,807,630	20,000,000 \$ 7,807,630	osts and advanced
Exhibit VII	Treasury / Banking Investments As of December 31, 2011	Operating Account Money Market Account Money Market (UPRR Contributions) <b>Total cash on hand</b>	Investments LAIF CBB - US Treasuries <b>Total investments</b>	<u>Billed / Not Received</u> <u>To Be Billed</u> <u>MTA Retention</u> <u>Indirect Expenses ('08 - '09)</u> Total Cash & Receivables	<u>Outstanding Debt (Commercial Paper)</u> Resources In Excess of Debt	* Note: Excludes \$2,283,000 of recovered project costs and advanced construction funds

**RB-AR4730** 

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Compliance with Banking / Investment Policy As of December 31, 2011

**Exhibit VII** 

	Baverische					
SGVCOG	SGVCOG Landdesbank	Deposit/				
Authorized	Permitted	Investment				
Investments	Investment	Amount			Maximum	Maximum
Ref.#	Ref:#	12-31-11	Bank Demosite	Maximum	Percent of	Investment in
			Ace demosits are held by Citrana Barrier	Maturny	Portiolio	One Issuer
			a deposit agreement in amounts not to exceed \$50 million.			
			Under the agreement, CBB maintains collateral deposits of at			
			least 110% of the value of all ACE deposits at Bank of the			
			west - Los Angeles in eligible securities. The CBB deposits accounts are:			
	and the second	S 225.640				
		4.798.209	4.798.200 Money Marter Anony and a second	Contraction of the contraction	「「「「「「「「「「「「「「「「「」」」」」」」」」」」」」」」」」」」」	時間、時間、時間、時間、時間、時間、時間、時間、時間、時間、時間、時間、時間、時
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			Permitted Investments	ner Andre in en	2011年1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に、1月1日に	
			10:340.336 U.S. Treasury Objections	None Stated	None Stated	Victor Stated
				Ben Manageran (and an	「「「「「「「「」」」」」「「「」」」」」」」」」」」」」」」」」」」」」」	
n		1.561.670	1.561.670 State's Local Agency Investment Fund			
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SGVCOG and Bayerische Landdesbank

1. United States Treasury notes, bonds, bills, or certificate of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest

SGVCOG

Notwithstanding any other provision of law, and local government official, with the consent of needs, may remit the money to the Treasure of the State of California for deposit in the Local the governing body of that agency, having money in its treasury not required for immediate Agency Investment Fund for the purpose of investment. ഗ്

11. State's Local Agency Investment Fund.

* Note: Includes \$2,283,000 of grant reimbursement for close out projects



# San Gabriel Valley Council of Governments

3452 East Foothill Blvd. Suite 810, Pasadena, California 91107 Phone: (626) 564-9702 FAX: (626) 564-1116 E-Mail SGV@sgvcog.org

Date: February 8, 2012

To: City Managers' Steering Committee

From: Chip Conway, SGVCOG Accountant/Treasurer

#### Re: FY 2010-2011 Audited Financial Statements

Attached please find the above-mentioned financial report.

#### **Recommended Action:**

Receive and File

#### **Background:**

Article VII, Section 5 of the SGVCOG's JPA Agreement stipulates that the records and accounts of the SGVCOG shall be audited annually by an independent certified public accountant and in compliance with Government Code Sections 6505.5 and 6505.6. Furthermore, said report shall be presented to our member agencies within 15 days after receipt of said audit.

Vasquez & Company, LLP, located in Los Angeles, was hired in 2009 through a competitive procurement to perform the independent audit for both SGVCOG and ACE for the fiscal years beginning in FY 2009 through 2013. This is their third audit.

In 2003, the Board decided to consolidate ACE and the SGVCOG financial statements for public presentation since ACE is a component unit of the SGVCOG. However, the scope and magnitude of these two organizations are entirely different and, for Board discussion purposes, they have been separated. See the following attachments for the audited financial statements:

- A) SGVCOG
- B) ACE
- C) Combined SGVCOG/ACE

#### Summary - SGVCOG

Significant legal and audit assistance expenses associated with the Caltrans audit, public records requests and definition of responsibilities between ACE and COG (approximately \$59,921) were offset by lower than budgeted expenses in federal/state advisory services, federal/state advocacy travel, and printing/publication. The net impact was an increase in Net Assets of \$34,491 vs. a budgeted amount of \$35,400.

Last year, as part of the FY 2009-10 audit, the COG did not receive a Management Letter or any comments for improvements from the auditors.

This year's audit was accompanied by a Management Letter that mentioned two items: 1) Lack of initials and review on bank reconciliations and 2) delays in depositing checks. Management has responded that it

is now initialing all reconciliations. Due to the small number of employees, COG had been waiting for the accountant to input the checks and having the Office Manager deposit the checks when she had time. Management has revised the procedure so that all checks are logged by the Office Manager, input and deposited by the Accountant on a weekly basis.

#### Summary –ACE

The FY 2010-11 audit shows a fund balance decrease of \$4.3 million as a direct result of the arbitrage rebate payments that were made in connection with the IRS examination of 2007, \$20 million GANS issue. Payments were covered with net investment income generated from investing commercials paper proceeds.

Last year. as part of the FY 2009-10 audit, the auditor's Management Letter raised two issues: 1) In FY 2008 and FY 2009 ACE deferred a combined total of \$583,950 in unallowed indirect expense that was billable to Metro. It was expensed to and reimbursed by Metro in FY 2010. 2) Concern was raised over ACE's FY 2010's budget being unduly optimistic. ACE has under-run its budget for three years in a row. In FY 2010, actual revenues and expenditures for ACE were \$22.4 million, or 22% below the original budget. Under-running a budget negatively impacts reimbursement of indirect expense because the state approved indirect rate is based on the original budget and used by both Caltrans and Metro in reimbursing ACE for indirect expense. The current balance of deferred indirect expense is now \$2,033,076.

The Management Letter that accompanies the FY 2010-11 is not being released until the ACE Board receives it along with the audited financial statements.

rb-ar4734 DRAFT

Audited Financial Statements and Supplementary Information Alameda Corridor – East Construction Authority (A Component Unit of San Gabriel Valley Council of Governments) Year ended June 30, 2011 with Report of Independent Auditors

	PAGE
REPORT OF INDEPENDENT AUDITORS	1
MANAGEMENT'S DISCUSSION AND ANALYSIS	3
BASIC FINANCIAL STATEMENTS Statement of Net Assets Statement of Activities Notes to Financial Statements	11 12 13
SUPPLEMENTARY INFORMATION Statement of Revenues, Expenditures and Changes in Fund Balance - Budget to Actual	27
REPORT OF INDEPENDENT AUDITORS ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF BASIC FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS	28

#### **Report of Independent Auditors**

#### Board of Directors Alameda Corridor – East Construction Authority

We have audited the accompanying basic financial statements of Alameda Corridor - East (ACE) Construction Authority, a component unit of San Gabriel Valley Council of Governments, as of and for the year ended June 30, 2011, as listed in the table of contents. These financial statements are the responsibility of ACE Construction Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of ACE Construction Authority's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the component unit financial statements referred to above present fairly, in all material respects, the financial position of ACE Construction Authority as of June 30, 2011, and the changes in its financial position for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated December 5, 2011, on our consideration of ACE Construction Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

# RB-AR4737

Management's Discussion and Analysis and budgetary comparison information are not a required part of the basic financial statements but are supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Los Angeles, California December 5, 2011

#### Alameda Corridor - East Construction Authority (A Component Unit of San Gabriel Valley Council of Governments) Management's Discussion and Analysis Year ended June 30, 2011

The following discussion and analysis of the financial performance and activity of the Alameda Corridor – East (ACE) Construction Authority provides an overview of ACE Construction Authority financial statements for the year ended June 30, 2011. This discussion was prepared by management and should be read in conjunction with the financial statements and notes which follow this section.

#### Background

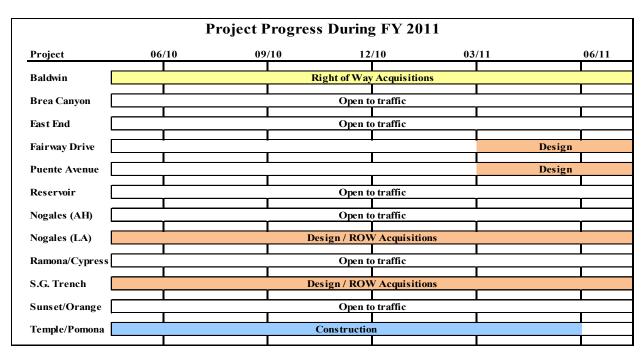
The San Gabriel Valley Council of Governments (SGVCOG) created the ACE Construction Authority in 1998 to mitigate the effects of increasing Union Pacific Railroad (UPRR) train traffic in the San Gabriel Valley. There were 55 "at-grade" crossings in the Valley where vehicular and pedestrian traffic cross directly over railroad tracks and must stop while trains pass by. This creates congestion, degrades the local environment, and compromises safety. The ACE Project will separate 20 crossings at the busiest intersections – by either raising or lowering the crossing street or the railroad – along the 35-mile freight rail corridor from East Los Angeles to Pomona.

The original budget for the project was \$950 million in 1998 dollars. The project was broken out into two phases. Phase I included a test deployment of a modernized traffic control system, safety improvements at 39 grade crossings, and 10 grade separations, two of which were assigned to other agencies. Phase II included the remaining 10 grade separations. Since then, all but one of the 10 Phase I grade separations are completed or in construction. The current cost estimates for all active or completed projects consisting of the safety improvements and 14 grade separations is \$1.143 billion. The remaining six grade separations in the overall adopted project are the subject of an update study. Their updated definition and cost estimates should be available by the end of calendar year 2011.

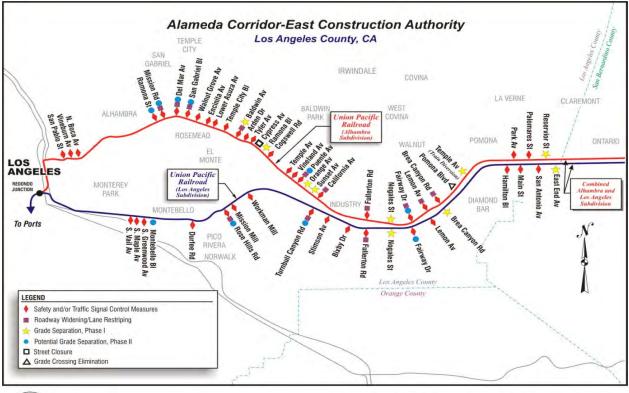
The Nogales Street project in West Covina/Industry was completed in 2005, the Reservoir Street project in Pomona was opened to traffic in 2005, Ramona Boulevard in El Monte, East End Avenue in Pomona, and Brea Canyon Road in Industry/Diamond Bar opened in 2008, and Sunset Avenue in City of Industry opened in 2010. The Temple Avenue Train Diversion in Pomona construction is complete, though we must await Union Pacific/Kinder Morgan agreement on relocating two Kinder Morgan pipelines in order divert the train traffic away from two crossings. The last piece of property needed for the remaining Phase I project, Baldwin Avenue in El Monte is in litigation and we anticipate construction starting in early 2012. In addition, property acquisition for the southern Nogales Street grade separation is nearing completed design and property acquisition and can go into construction as soon as approved State funding is available. Finally, design has begun on two of the remaining Phase II projects – Puente Avenue and Fairway Drive (LA subdivision).

# **RB-AR4739**

#### Alameda Corridor - East Construction Authority (A Component Unit of San Gabriel Valley Council of Governments) Management's Discussion and Analysis Year ended June 30, 2011



**Project Map** 





ALAMEDA CORRIDOR-EAST PROJECT AREA

REVISED DATE 3/08

<u>Federal</u>	_		ed/Pledged illions)
TEA-21 Earmark	\$	134.4	
Annual Appropriations (FY 2000-09)		19.7	
SAFETEA-LU Earmark		65.0	
ISTEA (Nogales LA)		6.9	
CMAQ (Nogales LA)	_	6.3	
	Total Federal		\$ 232.4
<u>State</u>			
Trans. Imp. Program (FY 2000-04)		39.0	
PUC Grade Separation Fund		5.0	
Trans. Cong. Relief Prog. (TCRP)		130.3	
Trade Corr. Infr. Fund (TCIF)		336.6	
Hwy. Rail Crossing Safety Act (HRCSA)	_	25.6	
	Total State		536.5
Los Angeles County Metropolitan			
Transportation Authority (Metro)			
17% - Match		259.9	
FY 2007 Call-for-projects		28.8	
Measure R	_	42.0	
	Total Metro		330.7
City/County Funds			29.6
Railroad Contributions			20.5
Total ACE Project Funding			\$ 1,149.7

As of June 30, 2011 the following funding had been committed to the ACE project:

The Committed/Pledged amounts may differ slightly from authorized funding due to budgetary holdbacks on multi-year grants, and reflect management's best estimate as to the amount that will be available. In addition to the committed funds shown above, we expect to receive an additional \$358 million in Metro Measure R funds through fiscal year 2019. Railroad contributions reflect a regulatory ceiling of 5% of construction cost pro-rated over the construction phase of the various projects.

ACE Construction Authority manages its projects to avoid risk wherever possible. All projects are designed to be within the scope allowed by federal, state and local guidelines. The project host city is responsible for paying for any "betterments" not needed for the basic grade separation. In addition, each phase - design, right-of-way acquisition and utility relocation, and construction - must be approved for reimbursement in advance by Caltrans.

ACE Construction Authority must pay contractors and vendors first before invoicing grantors for reimbursement. Reimbursements are currently running between two to six weeks for Caltrans (Federal and State funding) and Metro (local funding). Working capital therefore remains a major consideration. The ACE Construction Authority's parent organization, the San Gabriel Valley Council of Governments (SGVCOG), authorized the issuance of up to \$100 million in grant anticipation notes (GAN) to satisfy working capital requirements. \$27.350 million in GANs are outstanding at June 30, 2011.

#### **Financial Highlights**

For the fiscal year ended June 30, 2011:

- Net assets decreased \$4.3 million, a decrease of 42.19% primarily as a result of arbitrage rebate payments on net interest generated by net proceeds from the investment of commercial paper.
- Construction in progress decreased \$47.5 million, a decrease of 20.5%.
- Total revenue decreased \$31.3 million, a decrease of 41.2%.
- Total project expense decreased \$34.8 million, a decrease of 43.8%.

#### **Overview of Basic Financial Statements**

ACE Construction Authority's basic financial statements consist of three components: (1) Government-wide Financial Statements, (2) Fund Financial Statements and (3) Notes to the Basic Financial Statements.

#### Government-wide Financial Statements

The government-wide financial statements found on pages 11 and 12 are designed to give readers a broad overview of the Authority's financial position. These include all of the Authority's assets and liabilities, revenues and expenses. The accounting basis is full accrual (similar to private sector companies) where the Authority's revenues and expenses are reported as the causal event occurs, instead of when the revenue was received or expense paid.

The "Statement of Net Assets" presents all of the Authority's assets and liabilities, with the difference reported as net assets (or equity in the private sector). While large net assets might indicate that a governmental agency has not spent all available revenues and other resources, negative net assets indicates that the agency has overspent. It is management's position to maintain sufficient net assets to compensate for any disallowed costs, but to allocate any surplus to construction activities.

The "Statement of Activities" presents the Authority's revenues and expenses for the fiscal year ended on June 30, 2011. The statement has four primary areas: Operating Expenditures, Operating Revenues, Nonoperating Income (Expenses) and Change in Net Assets. Expenses are broken out into Direct (those expenses that can be identified directly to individual projects) and Indirect, while Financing Income is the interest earned on cash balances less interest and fees paid on the corresponding debt.

#### Fund Financial Statements

The fund financial statements can be found on pages 11 and 12 of this report. A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives.

ACE Construction Authority, unlike cities, county or State governments, has one activity – construction. All of ACE Construction Authority's activities are classified as a Construction (Capital Projects) Fund with the exception of the amount invested in a deferred compensation plan funded solely by staff.

Differences between the two sets of financial statements are normally determined by the complexity of the reporting agency and usually revolve around different treatments for capital assets and depreciation, and debt issuance and repayment. The Authority's focus on a single activity results in the two statements being very similar.

#### Notes to the Basic Financial Statements

This report includes notes to the basic financial statements. They provide additional information that is important to a complete understanding of the data contained in the government-wide and fund financial statements. The notes can be found on pages 13 through 26 of this report.

#### **Statements of Net Assets**

The following table shows the condensed statements of net assets for the past two years:

		June 30				
		2011		2010		
Current and other assets	\$	45,329,675	\$	123,817,067		
Capital assets		23,160		43,208		
Construction in progress		183,999,655		231,505,012		
Less due to member cities and						
Union Pacific Railroad		(183,999,655)		(231,505,012)		
Total assets	_	45,352,835		123,860,275		
Current liabilities	<u>,</u>	39,431,887	<b>•</b>	113,617,868		
Net assets	\$	5,920,948	\$	10,242,407		

All organizations are required to report construction in progress (that is, the sum of prior and current year's construction expense) on the Statement of Net Assets as an asset. This would normally be done by treating each year's construction as a capital expense which would be excluded from the Statement of Activities. However, the grant reimbursements generated by construction would be included in the Statement of Activities as revenue. The ACE Construction Authority is obligated to transfer components of completed projects to the UPRR and the cities so that they can be included in their financial statements. The resulting reduction in assets would flow through the Statement of

Activities as a loss. The net effect would be to produce widely fluctuating Net Assets and Fund Balances depending on whether ACE Construction Authority was constructing (Surplus) or transferring assets to member cities (Deficit).

Therefore, the ACE Construction Authority elected to treat construction in progress as a matching asset and liability. This shows the total cost of ACE Construction Authority's projects and the resulting liability to transfer the assets upon completion while not unduly impacting the Statement of Activities.

Assets decreased by 63.4% to \$45.4 million (see condensed Statements of Net Assets, page 7) mainly due to reducing the amount held in investments to pay down outstanding GANs to match lower levels of project activity, lower grants and unbilled receivables as a result of lower grant reimbursable incurred expenditures.

Construction in progress decreased 21% to \$184 million (see condensed Statements of Net Assets, page 7) primarily as a result of the completion of the Sunset project without offsetting construction.

Deferred revenue (unearned and unavailable) increased 22.9% to \$5.6 million (see Statement of Net Assets, page 11) primarily due to having to recognize \$1.8 million of surplus rental property generating revenue after project was closed. Sale of this property is expected to take place within the next fiscal year.

The SGVCOG, on behalf of the Authority, had \$27.35 million (see Statement of Net Assets, page 11) in variable rate, tax-exempt commercial paper outstanding as of June 2011. The decision as to how much to issue is made periodically by the ACE Construction Authority management in consultation with its financial advisors taking into account current and prospective cash flow needs.

Grants and unbilled receivables decreased 48.6% to \$4 million and 56.19% to \$7.6 million (see Statement of Net Assets, page 11) respectively due to lower reimbursable grant expenditures.

The FY2011 revised Budget for operating expenditures was \$82.7 million compared to \$97.5 million in FY2010. Actual total operating expenditures are \$44.2 million compared to \$78.5 million in FY2010. (See Statement of Revenues, Expenditures and Changes in Fund Balance – Budget to Actual, page 27).

Project revenues continue to closely track expenditures. ACE Construction Authority's policy is to avoid where possible costs not reimbursable under State and Federal guidelines; Metro also provides project funds and, under separate agreement, continues to fund certain administrative expenses not reimbursable under federal and state regulations; Cities requesting work in excess of Caltrans guidelines (referred to as betterments) are paid for by the requesting city.

#### Statement of Activities

The following table shows the condensed statements of activities for the past two years:

		Years ended June 30				
	_	2011	_	2010		
Project expenses			-			
Direct (construction)	\$	40,879,495	\$	74,840,690		
Indirect expenses charged to operations		3,735,496	_	4,554,512		
Total project expenses	-	44,614,991	-	79,395,202		
Revenues						
Grant reimbursements		44,181,756		74,623,951		
Other operating revenues		475,871		1,359,697		
Total revenues	-	44,657,627	-	75,983,648		
Income/(loss) from operations	-	42,636	_	(3,411,554)		
Nonoperating income (expense)						
Financing income		543,560		692,556		
Financing expense	_	(4,907,655)	_	(624,971)		
Net financing income (expense)	-	(4,364,095)	_	67,585		
Change in net assets		(4,321,459)		(3,343,969)		
Net assets at beginning of year	-	10,242,407	-	13,586,376		
Net assets at end of year	\$	5,920,948	\$_	10,242,407		

The ACE Construction Authority is reimbursed for indirect expenses based on Caltrans approved Indirect Cost Allocation Plan (ICAP) rate. The reimbursement is added to all Caltrans and Metro invoices and is calculated by applying the ICAP rate to direct salaries and wages and fringe benefits. The applied indirect expense to projects was lower than the actual indirect expense incurred, resulting in a deferral of \$298,293 to future years.

#### **Capital Assets**

ACE Construction Authority had \$23,160 and \$43,208 invested in capital assets, net of depreciation, as of June 30, 2011 and 2010, respectively.

ACE Construction Authority's capital assets consist of leasehold improvement and office equipment only.

#### Economic Factors and Next Year's Budget

Sufficient funds were available at the close of FY 2011 to continue with remaining active grade separation projects.

Los Angeles County voters approved Measure R in November 2008. ACE Project is included for \$400 million in local funds over the life of the sales tax. Metro has approved an initial drawdown of \$42 million for the ACE Project and projects that the full \$400 million will be available between now and FY 2019.

ACE Construction Authority Board approved suspension of the Integrated Rail Roadway System (IRRIS), a traffic signal system demonstration project, in June 2009. A total of \$6.4 million has been spent on the project since inception. Caltrans and the Federal Highway Administration have approved the closeout of the project.

With less than a quarter of expenditure activity in FY 2012, it is challenging to estimate that actual expenditures will be consistent with levels assumed in the FY 2012 budget. However, using recent expenditure trends it appears the ACE Construction Authority will be within 20% of the FY 2012 Approved Budget of \$72 million.

#### **Requests for Information**

These financial statements are designed to provide citizens, taxpayers, customers, and creditors with a general overview of the Authority's finances and to demonstrate accountability for the money it receives. If there are any questions about this report or a need for additional information, please contact The ACE Construction Authority, 4900 Rivergrade Road, Suite Al20, Irwindale, CA 91706, or call (626) 962-9292.

### **RB-AR4746**

#### Alameda Corridor - East Construction Authority (A Component Unit of San Gabriel Valley Council of Governments) Statement of Net Assets June 30, 2011

	(	Capital Project				Government-
400570	-	Fund		Adjustment		wide
ASSETS Current assets						
Cash and investments	\$	24,378,470	\$	-	\$	24,378,470
Grants receivable	Ψ	4,032,710	Ψ	-	Ψ	4,032,710
Unbilled receivables		7,617,163		_		7,617,163
Interest receivable		16,430		-		16,430
Retention receivable		4,960,642		_		4,960,642
Receivable - other		120,656		_		120,656
Deferred cost incurred		2,331,369		-		2,331,369
Prepaid expenses		2,001,000		_		2,001,000
Insurance		34,693				34,693
		74,351		-		74,351
Cost of issuance, commercial paper				-		
Property held for sale	-	1,763,191		-	-	1,763,191
Noneurrentessets	-	45,329,675		-	•	45,329,675
Noncurrent assets				00.400		00.400
Leasehold improvements and equipment, net		-		23,160		23,160
Construction in progress		-		183,999,655		183,999,655
Less due to member cities and Union Pacific Railroad		-		(183,999,655)		(183,999,655)
Total assets	_	45,329,675		23,160	-	45,352,835
		,0_0,0.0			-	.0,002,000
LIABILITIES						
Current liabilities						
Accounts payable and accrued expense		5,456,811		-		5,456,811
Accrued retention payable		895,520		-		895,520
Deferred revenue		5,622,131		-		5,622,131
Compensated absences		107,425		-		107,425
Commercial paper		27,350,000		-		27,350,000
Total liabilities	-	39,431,887		-	-	39,431,887
	_				-	<u> </u>
FUND BALANCES/NET ASSETS						
Fund balance						
Nonspendable for:						
Deferred cost incurred		2,331,369				
Prepaid expenses		109,044				
Assigned:						
Capital project fund	_	3,457,375	_			
Total fund balance	\$	5,897,788	_			
	-					
Net assets				00.400		00 100
Invested in capital assets				23,160		23,160
Unrestricted			<u>.</u>	-		5,897,788
Total net assets			\$	23,160	\$	5,920,948

See notes to financial statements.

# **RB-AR4747**

#### Alameda Corridor - East Construction Authority (A Component Unit of San Gabriel Valley Council of Governments) Statement of Activities Year ended June 30, 2011

Project expenses		Capital Project Fund		Adjustment		Government- wide
Direct (construction)	\$	40,879,495	\$	-	\$	40,879,495
Indirect expenses charged to operations	Ψ	3,715,448	Ψ	20,048	Ψ	3,735,496
Total project expenses		44,594,943	- ·	20,048	· -	44,614,991
Revenues						
Grant reimbursements		44,181,756		-		44,181,756
Other operating revenues		475,871		-		475,871
Total revenues		44,657,627		-		44,657,627
Income from operations		62,684		(20,048)		42,636
Nonoperating income (expense)						
Financing income		543,560		-		543,560
Financing expense		(4,907,655)		-		(4,907,655)
Net nonoperating income (expense)		(4,364,095)		-	· -	(4,364,095)
Deficiency of revenues over						
expenditures/Change in net assets		(4,301,411)		(20,048)		(4,321,459)
Fund balance/Net Assets at beginning of year		10,199,199		43,208	. <u>-</u>	10,242,407
Fund balance/Net Assets at end of year	\$	5,897,788	\$	23,160	\$ _	5,920,948

See notes to financial statements.

#### NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### **The Reporting Entity**

ACE Construction Authority is a component unit of the San Gabriel Valley Council of Governments, (SGVCOG).

#### **Basis of Accounting**

Government-wide reporting uses the full accrual basis of accounting. The Statement of Activities presents changes in Net Assets. (This is equivalent to an Income and Changes in Equity Statement in private sector companies.) Revenues are recorded when earned and expenses are recognized at the time of the causal event.

ACE Construction Authority recognizes reimbursements from grants as revenues to the extent reimbursing obligations are earned on or before June 30, 2011 and are therefore the same under both modified accrual and full accrual basis. Major interest bearing debt is short-term in nature so there is no difference relating to accrued interest owed.

#### **Description of Funds**

ACE Construction Authority uses funds and account groups to report on its financial position and results of its operations. Fund accounting is designed to demonstrate legal compliance and to aid financial management by segregating transactions related to certain government functions or activities.

#### Governmental Fund

Capital Project Fund - Accounts for the activity of obtaining support from governmental groups, determining funding and specifications for structures needed and to fund the contracts for the grade crossing improvements. This fund accounts for most of the activities of the Authority.

#### **Fund Balance Reporting**

During the fiscal year ended June 30, 2011, ACE Construction Authority has implemented Governmental Accounting Standards Board (GASB) Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*. This Statement establishes the following fund balance classifications that comprise a hierarchy based primarily on the extent to which a government is bound to observe constraints imposed upon the use of the resources reported in governmental funds:

<u>Nonspendable fund balance</u> includes amounts that cannot be spent because they are either (a) not in spendable form or (b) legally or contractually required to be maintained intact. Examples are inventories, prepaid expenses, long-term receivables, or non-financial assets held for resale.

<u>Restricted fund balance</u> includes resources that are subject to externally enforceable legal restrictions. It includes amounts that can be spent only for the specific purposes stipulated by constitution, external resource providers, or through enabling legislation.

#### NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Fund Balance Reporting (continued)

<u>Committed fund balance</u> includes amounts that can be used only for the specific purposes determined by a formal action of ACE Construction Authority's highest level of decision-making authority (Board of Directors).

<u>Assigned fund balance</u> consists of funds that are set aside for specific purposes by ACE Construction Authority's highest level of decision making authority or a body or official that has been given the authority to assign funds. Assigned funds cannot cause a deficit in unassigned fund balance.

<u>Unassigned fund balance</u> - is the residual classification for ACE Construction Authority's general fund and includes all spendable amounts not contained in the other classifications. This category also provides the resources necessary to meet unexpected expenditures and revenue shortfalls.

The Board of Directors, as ACE Construction Authority's highest level of decisionmaking authority, may commit fund balance for specific purposes pursuant to constraints imposed by formal actions taken. Committed amounts cannot be used for any other purpose unless the Board of Directors removes or changes the specific use through the same type of formal action taken to establish the commitment. ACE Construction Authority does not have any fund balance that meet this classification as of June 30, 2011.

The Board of Directors delegates the authority to assign fund balance to the Chief Executive Officer for purposes of reporting in the annual financial statements.

ACE Construction Authority considers the restricted fund balances to have been spent when expenditure is incurred for purposes for which both unrestricted and restricted fund balance is available. ACE Construction Authority considers unrestricted fund balances to have been spent when an expenditure is incurred for purposes for which amounts in any of the unrestricted classifications of fund balance could be used. When expenditures are incurred for purposes for which amounts in any of the unrestricted fund balance classifications could be used, it is the policy of ACE Construction Authority to reduce the committed amounts first, followed by assigned amounts, and then unassigned amounts.

#### **Budgetary Reporting**

The Board approved the FY 2011 budget in July 2010.

The budget was based on estimated expenditures over the operating period. Significant under-runs were initially encountered as the Authority experienced delays in obtaining various Caltrans' required approvals for major design contracts from Federal and State grantors.

#### NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### **Budgetary Reporting (continued)**

It is the Authority's policy not to start any phase of a project (i.e., design, right-of-way acquisition, or construction), unless there are sufficient funds to complete that phase. All project related expenses are reimbursable from existing grants and, as such, budgeted revenues were not budgeted separately, but derived from budgeted expenditures.

#### Cash Equivalents

Cash equivalents are those short-term investments readily converted into cash. Deposits with the State of California's Local Agency Investment Fund (LAIF) Operating Fund and the bond portfolio managed by Citizens' Business Bank meet that description.

#### Grant Revenues and Expenditures

All grants are between the SGVCOG and the granting authority. ACE Construction Authority has been given authority to obtain and administer funding in the name of SGVCOG. The MTA grant was in existence when ACE Construction Authority was created and all subsequent grants therefore are administered by ACE Construction Authority.

To-date, all grants with the exception of the UPRR contributions are, and are anticipated to be in the future, cost reimbursable. That is, the Authority must first expend the money and then bill for reimbursement from the grantors.

#### Short-term Notes (Commercial Paper)

In March 2001, SGVCOG authorized the issuance of up to \$100,000,000 in short-term variable rate tax-exempt grant anticipation notes. The notes are backed by a letter of credit from Bayern LB.

As of June 30, 2011, \$27.35 million in variable rate, tax-exempt commercial paper is outstanding. The decision as to how much to issue is made periodically by the ACE Construction Authority management in consultation with its financial advisors taking into account current and prospective cash flow needs.

ACE Construction Authority management and financial advisors review on a periodic basis the current and prospective cash requirements in determining the amount of commercial paper to be issued.

Arbitrage has been earned on the differential between interest earned on investment with the State Treasurer's Local Agency Fund (LAIF) and a local bank, and to holders of the commercial paper. Arbitrage earned may be required to be refunded unless certain specific Internal Revenue Code requirements are met. Specific provisions of the borrowing are described in Note 4 (Advances by the San Gabriel Valley Council of Governments).

#### NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

#### Leasehold Improvements and Equipment

Phases of equipment and other improvements that can be capitalized are recorded as expenditures in the capital projects fund. The threshold for capitalization has been \$5,000 since FY 2005 in accordance with Federal guidelines. On the government-wide financial statements such items are recorded as capital assets and are depreciated based upon their estimated useful lives on a straight-line basis. Useful lives of assets categories are as follows:

Leasehold improvements	10 years
Office furniture	10 years
Computer, office and telephone equipment	5 years

#### Use of Estimates

The process of presenting financial information requires the use of estimates and assumptions regarding certain assets and liabilities and their related income and expense items. Grant reimbursements and construction costs are especially vulnerable to such assumptions and accordingly actual results may differ from estimated amounts.

#### **Property Held for Sale**

The property held for sale is recorded at the lower of acquisition cost or estimated net realizable value.

#### NOTE 2 LEASEHOLD IMPROVEMENTS AND EQUIPMENT

The leasehold improvement and equipment are recorded at cost and consist of the following:

	Balance July 1, 2010	Additions	Deletions		Balance June 30, 2011
Cost:					
Leasehold improvements	\$ 19,762 \$	-	\$ -	\$	19,762
Computer equipment					
Hardware	159,992	-	-		159,992
Software	105,692	-	-		105,692
Website	3,393	-	-		3,393
Telephone equipment	12,086	-	-		12,086
Office furniture	31,972	-	-		31,972
Total cost	332,897	-	-	_	332,897
Less accumulated depreciation for:					
Leasehold improvements	18,774	988	-		19,762
Computer equipment					
Hardware	142,968	9,259	-		152,227
Software	83,186	8,376	-		91,562
Website	3,393	-	-		3,393
Telephone equipment	12,086	-	-		12,086
Office furniture	29,282	1,425	-		30,707
Total accumulated depreciation	289,689	20,048	 -	-	309,737
Leasehold improvements and equipment, net	\$ 43,208 \$	(20,048)	\$ -	\$	23,160

Depreciation expense included in indirect expenses for the year ended June 30, 2011 amounted to \$20,048.

#### NOTE 3 CASH AND INVESTMENTS

Cash and investments at June 30, 2011 as classified in the accompanying financial statements are composed of:

Cash in bank \$	7,577,692
Pooled funds	1,543,746
Money market funds	2,202,259
Medium-Term Notes	2,438,260
US Treasury obligations	10,616,513
Total cash and investments \$	24,378,470

# Investments Authorized by the California Government Code and ACE Construction Authority's Investment Policy

The table below identifies the investment types that are authorized for ACE Construction Authority by the California Government Code (or ACE Construction Authority's investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or ACE Construction Authority's investment policy, where more restrictive) that address interest rate risk, credit risk, and concentration of credit risk. This table does not address investments of debt proceeds held by bond trustee that are governed by the provisions of the California Government Code or ACE Construction of the California Government by the provisions of the California Government Code or ACE Construction Authority, rather than the general provisions of the California Government Code or ACE Construction Authority's investment policy.

	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment in One Issuer
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
U.S. Agency Securities	5 years	None	None
Banker's Acceptances	180 days	15%	5%
Commercial Paper	180 days	15%	5%
Negotiable Certificates of Deposit	5 years	30%	None
Repurchase Agreements	30 days	None	None
Reverse Repurchase Agreements	92 days	5%	None
Medium-Term Notes	5 years	20%	None
Mutual Funds	N/A	20%	10%
Money Market Mutual Funds	N/A	0%	10%
Mortgage Pass-Through Securities	5 years	20%	None
County Pooled Investment Funds	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None
JPA Pools (other investment pools)	N/A	None	None

#### NOTE 3 CASH AND INVESTMENTS (CONTINUED)

#### **Investments Authorized by Debt Agreements**

Investment of debt proceeds held by bond trustee are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or ACE Construction Authority's investment policy.

The table below identifies the investment types that are authorized for investments held by bond trustee. The table also identifies certain provisions of these debt agreements that address interest rate risk, credit risk, and concentration of credit risk.

Authorized Investment Type	Maximum Maturity	Maximum Percentage Allowed in	Maximum Investment One Issuer
U.S. Treasury Obligations	None	None	None
U.S. Agency Securities	None	None	None
Banker's Acceptances	180 days	None	None
Commercial Paper	270 days	None	None
Money Market Mutual Funds	N/A	None	None
Investment Contracts	30 years	None	None

#### **Disclosures Relating to Interest Rate Risk**

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that ACE Construction Authority manages its exposure to interest rate risk is by purchasing a combination of short-term and long-term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming close to maturity over time as necessary to provide the cash flow and liquidity needed for operations. Information about the sensitivity of the fair values of ACE Construction Authority's investments (including investments held by trustee) to market interest rate fluctuations is provided by the following table that shows the distribution of ACE Construction Authority's investment by maturity:

	_	Remaining maturity in months									
Investment Type		Total	12 Months or less	13 to 24 Months	25 to 60 Months	More than 60 months					
LAIF Held by trustee:	\$	1,543,746 \$	1,469,646 \$	44,769 \$	29,331 \$	-					
Money market funds		2,202,259	2,202,259	-	-	-					
Investment contracts		13,054,773	-	13,054,773	-	-					
Tota	\$	16,800,778 \$	3,671,905 \$	13,099,542 \$	29,331 \$						

#### NOTE 3 CASH AND INVESTMENTS (CONTINUED)

#### Investments with Fair Values Highly Sensitive to Interest Rate Fluctuations

ACE Construction Authority has no investments (including investments held by trustees) that are highly sensitive to interest rate fluctuations (to a greater degree than already indicated in the information provided above).

#### **Disclosures Relating to Credit Risk**

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, ACE Construction Authority's investment policy, or debt agreements, and the actual rating at the end of the year for each investment type.

			Minimum		Exempt	Rating as of year end			
Investment Type		Legal Rating		from Disclosure	AAA	Aa	Not rated		
LAIF Held by trustee:	\$	1,543,746	N/A	\$	- \$	- \$	- \$	1,543,746	
Money market fu	inds	2,202,259	А		-	2,202,259	-	-	
Investment contr	acts	13,054,773	N/A		-	13,054,773	-	-	
	Total \$	16,800,778		\$	- \$	15,257,032 \$	- \$	1,543,746	

#### **Concentration of Credit Risk**

ACE Construction Authority's investment policy contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. As of June 30, 2011, ACE Construction Authority had no investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total ACE Construction Authority investments other than funds held by the trustee.

ACE Construction Authority does not have any investments in any one issuer that represents 5% or more of total investments.

#### **Custodial Credit Risk**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of an other party.

#### NOTE 3 CASH AND INVESTMENTS (CONTINUED)

The California Government Code and ACE Construction Authority's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits or investments, other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by State or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under State law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure public agency deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits. As of June 30, 2011, the Authority's deposit of \$7,743,269 with financial institutions is in excess of Federal depository insurance limits but are held in collateralized accounts.

As of June 30, 2011, the following investment types were held by the same brokerdealer (counterparty) that was used by ACE Construction Authority to buy the securities:

Investment Type	 Reported Amount		
Money market funds	\$ \$2,209,259		

#### Investments in State Investment Pool

ACE Construction Authority is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. At June 30, 2011, the total market value of LAIF, including accrued interest was approximately \$66.52 billion. The fair value of ACE Construction Authority's investment in this pool is \$1,543,746 at June 30, 2011 based upon ACE Construction Authority's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of the portfolio). LAIF's (and ACE Construction Authority's) exposure to risk (credit, market or legal) is not currently available.

#### NOTE 4 ADVANCES BY THE SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS

#### Short-term Notes Payable (Commercial Paper)

In the Spring of 2001 the SGVCOG entered into an agreement to borrow up to \$100,000,000 in short-term debt guaranteed by a letter of credit and collateralized by the pledge of grant revenues. The securities issue is tax exempt. Notes outstanding at June 30, 2011, amounted to \$27,350,000. Interest rates vary according to market conditions and have ranged from 0.38% and 0.24% in FY 2011. Proceeds of the borrowings have been used to pay for construction activities and also to provide a revenue source on the differential between interest earned and interest paid. The Commercial Paper is currently guaranteed by Bayern LB.

#### NOTE 5 GRANT ACCOUNTING

In the year ended June 30, 2011, ACE Construction Authority was the recipient, primarily from the Federal Department of Transportation through the California Department of Transportation (Caltrans), of cost reimbursement type grants. There was also California transportation programs paid through Caltrans. Local share was received from Metro. All of these grants are expenditure driven; funds must be expended before reimbursement is received. Certain amounts have been held back by the grantor agency pending completion of certain phases of contracted work and some costs incurred are subject to disallowance.

Receivable amounts at June 30, 2011, are shown net of disallowed costs. Caltrans approved, under Office of Management and Budget (OMB) Circular A-87, an indirect overhead allocation formula of 397.1% of total direct salaries and fringe benefit costs. Indirect costs incurred in fiscal year ended June 30, 2011 were \$3,608,604 and previously deferred indirect expense was increased by \$298,293.

#### NOTE 6 EMPLOYEE BENEFIT PLAN

#### **Defined Benefit Pension Plan**

Effective June 17, 2002 contributions and earnings of continuing employees previously contributed to CalPars, were transferred to CalPERS.

CalPERS is an agent, multiple employer defined benefit pension plan that acts as a common investment and administrative agent for participating public entities within the State of California; State statutes within the Public Employees Retirement Law establish menus of benefit provisions as well as other requirements. CalPERS issues separate comprehensive annual financial reports. Copies of the CalPERS' annual financial report may be obtained from CalPERS Executive Office - 400 P Street, Sacramento, CA 95814. Since the plan had less than 100 active members and at least one valuation since June 30, 2003, CalPERS requires the Authority's Plan to participate in a risk pool. Mandated pooling was effective with the June 20, 2003 valuation.

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#### NOTE 6 EMPLOYEE BENEFIT PLAN (CONTINUED)

#### Funding Policy

Active plan members as defined by the above statutes are required to contribute 7% of their annual covered salary. The Authority has elected to contribute this amount to CaIPERS on behalf of eligible employees. The authority is also required to contribute the actuarially determined remaining amounts necessary to fund the benefits for its members. The actuarial methods and assumptions used are those adopted by CaIPERS Board of Administration. The required employer contribution rate to CaIPERS for the year ended June 30, 2011 is 8.475%. The contribution requirements of the plan members are established by State statute and the employer contribution rate is established and may be amended by CaIPERS.

#### Annual Pension Cost (APC)

For fiscal year 2011, the Authority's annual pension cost and actual contribution was \$331,340. For the year ended June 30, 2011, the actuarial funding method used by the CalPERS is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a matter that produces level annual cost as the percentage of pay in each year from the age of hire (entry age) to the assumed retirement age.

The actuarial assumptions included (a) 2% at 55 as the benefit formula; (b) 7.75% investment rate of return compounded annually (net of expenses); (c) projected payroll growth rate of 3.25% and inflation of 3.0% compounded annually; and (d) 2% cost-of-living adjustment.

The actuarial funding process calculates a regular contribution schedule of employee contributions and employer contributions (normal costs) which are designed to accumulate with interest to equal the total present value of benefits by the time every member has left employment. As of each June 30, the actuary calculated the desirable level of plan assets as of that point in time by subtracting the present value of scheduled future employee contributions and future employer normal costs from the total present value of benefits.

#### Three-Year Trend Information for CalPERS

			APC	
	Year	 (APC)	Contributed	 Obligation
_	6/30/2009	\$ 207,868	100%	\$ -
	6/30/2010	353,248	100%	-
	6/30/2011	331,340	100%	-

#### **Postemployment Benefits**

ACE Construction Authority did not incur any other liabilities during fiscal year 2011 related to postemployment benefits.

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#### NOTE 6 EMPLOYEE BENEFIT PLAN (CONTINUED)

#### Deferred Compensation Plan

The Authority has entered into a salary reduction deferred compensation plan for its employees. Securities held by the plan are valued at market. The plan allows employees to defer a portion of their current income from state and federal taxation. Employees may withdraw their participation at any time by giving written notice at least a week in advance prior to the effective date of the withdrawal. At June 30, 2011, plan assets totaling \$1,162,063 were held by independent trustees and, as such, are not reflected in the accompanying basic financial statements.

Balance at June 30, 2010	\$ 806,716
Add employee contribution	160,881
Add net realized and unrealized appreciation	
in fair value of investments	196,968
Less distributions	(2,500)
Less fees charged	 (2)
Balance at June 30, 2011	\$ 1,162,063

All amounts of compensation deferred under the plans are solely the property and rights of each beneficiary (pursuant to legislative changes effective 1998 to the Internal Revenue Code Section 457, this includes all property and rights purchased and income attributable to these amounts until paid or made available to the employee or other beneficiary).

#### NOTE 7 COMMITMENTS AND CONTINGENCIES

As mentioned in Note 5, the Authority receives reimbursement type grants from Federal, State and local sources. Certain expenditures are not allowable and not subject to reimbursement. Also, there may be disallowed costs. Management's experience in this regard indicates disallowances, if any, will not be material.

In June 2009, ACE Construction Authority Board approved suspension of the Integrated Rail Roadway System (IRRIS), a traffic signal system demonstration project. A total of \$6.4 million has been spent on the project since inception. The ACE Construction Authority staff has received a project close out from Caltrans. Management believes that no funds will be returned as a result of the suspension.

Earnings from arbitrage may be subject to rebate under certain provisions of the Internal Revenue Service Code unless certain specific conditions are met. Management is committed to meeting those conditions.

In the ordinary course of its operations, ACE Construction Authority is the subject of claims and litigations from outside parties. In the opinion of management, there is no pending litigation or unasserted claims, the outcome of which would materially affect ACE Construction Authority's financial position.

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#### NOTE 7 COMMITMENTS AND CONTINGENCIES (CONTINUED)

The Authority occupies its office from Metropolitan Life Insurance Company subject to a lease expiring April 30, 2016. Monthly rent and a pro-rata share of facility maintenance and utilities are as follow:

Period from/to		Monthly Rent		Annual Amount
May 1, 2011 to April 30, 2012	\$	17,448	\$	209,376
May 1, 2012 to April 30, 2013		17,972		215,664
May 1, 2013 to April 30, 2014		18,511		222,132
May 1, 2014 to April 30, 2015		19,066		228,792
May 1, 2015 to April 30, 2016		19,638		235,656
Total lease commitments \$				1,111,620

Escrow Agreements for Contract Retention - The Escrow Agent, Contractor or Owner may terminate this Escrow Agreement, with or without cause, by providing 30 days prior written notice to the other parties. In the event of termination of this Escrow Agreement, all the funds on deposit shall be paid to the Owner and any accrued interest less escrow fees shall be paid to the Contractor. The Authority has recognized as expenditure retention payments totaling \$3,763,151. Funds are deposited in several escrow accounts until release to the Contractor is authorized.

#### NOTE 8 ACCOUNTING FOR CONSTRUCTION IN PROGRESS AND EVENTUAL DISPOSAL OF PROJECTS

Except for minor acquisitions that may be sold by the ACE Construction Authority when no longer needed, all of the construction projects when completed, will be deeded to the Union Pacific Railroad and the cities in which they are located at no cost to the acquirer. At June 30, 2011, \$574,432,135 of costs was accumulated on projects in process and \$390,432,480 had been transferred to the railroad and impacted cities.

Under the government funds and modified accrual basis of accounting \$44,189,806 in FY 2011 project expenditures would be reported as expenditures in the year incurred. On the government-wide financial statements conforming to GASB 34 reporting on these transactions presents a challenge. Accumulating those costs as construction in progress (i.e., treated as a cash flow expenditure and not a current year expense) would substantially overstate income while reporting the disposal and expensing the accumulated costs would distort the cost of operations. In both cases, net assets would fluctuate wildly, depending on the timing of construction and disposal.

#### NOTE 8 ACCOUNTING FOR CONSTRUCTION IN PROGRESS AND EVENTUAL DISPOSAL OF PROJECTS (CONTINUED)

To alleviate this situation, management has elected to record a liability (same amount as the construction in progress) to UPRR and governments likely to be the eventual owner of the improvements/grade separations. This approach will minimize the effects of both on the acquisition of property for construction and the accumulation of construction costs and their eventual disposal.

#### NOTE 9 ACCOUNTING FOR ARBITRAGE

In February of 2011 ACE received an Information Data Request from the Internal Revenue Service ("IRS") related to arbitrage rebate compliance on its 2005 Series commercial paper draw. Based upon this request, it was discovered that the Series 2005 draw, and the previous three draws, had not met spending exceptions that would avoid the payment of any excess profits made on investing the tax-exempt commercial paper draws in taxable investments prior to these amounts being spent.

ACE contracted with First Southwest Company to perform rebate calculations on all of its outstanding commercial paper draws. Based upon these calculations, as of June 30, 2011, ACE has made payments to the IRS in the amount of \$2,465,791, consisting of \$2,214,731 of rebate liability, and \$251,060 in late interest for required filings prior to June 30, 2011.

As of June 30, 2011, the estimated liability payment on three outstanding commercial paper draws is \$1,836,253. Of this total, \$598,286 was paid on July 5, 2011, \$717,422 was paid on July 29, 2011, and \$412,716 was paid on October 27, 2011, leaving an estimated liability of \$107,829 as of December 5, 2011.

On October 28, 2011, ACE received a notice from the IRS which states that the IRS have made a determination to close the examination of ACE's 2005 Series commercial paper draw with no change to the position that interest received by the beneficial owners of the Bonds is excludable from the gross income under section 103 of the Internal Revenue Code. However, the IRS' examination revealed that rebate payments were required and that ACE had no system to monitor the compliance with arbitrage and yield restriction regulations. Future noncompliance could result in penalties and/or the taxability of interest received by the beneficial owners of the Bonds. The accrued liability as of June 30, 2011 covers the rebate payments required and ACE is committed to having a system to monitor the compliance with arbitrage and yield restriction regulations.

#### NOTE 10 SUBSEQUENT EVENTS

ACE Construction Authority has evaluated events subsequent to June 30, 2011 to assess the need for potential recognition or disclosure in the financial statements. Such events were evaluated through December 5, 2011, the date the financial statements were available to be issued. Based upon this evaluation, it was determined that no subsequent events occurred that require recognition or additional disclosure in the financial statements.

## **RB-AR4762**

#### Alameda Corridor - East Construction Authority Т

#### (A Component Unit of San Gabriel Valley Council of Governments) Statement of Revenues, Expenditures and Changes in Fund Balance -

**Budget to Actual** 

Year ended June 30, 2011

	Pudaatad	Amounto		Variance	
	Budgeted	Budgeted Amounts			
	Onimin al	Amended	Actual	Positive	
<b>D</b>	Original	Final	Amounts	(Negative)	
Revenues					
Reimbursements	44 004 000	¢ 44.004.057 ¢	4 005 700 \$		
Federal grants \$	, ,	\$ 11,064,657 \$	4,985,702 \$	(6,078,955)	
State grants	26,808,000	20,273,482	-	(20,273,482)	
Local grants	67,941,000	51,380,209	39,196,054	(12,184,155)	
Other revenue	1,333,000	<u> </u>	332	332	
Total revenues	110,713,000	82,718,348	44,182,088	(38,536,260)	
On a matin manual diterman					
Operating expenditures Construction					
Design	7,698,000	7,389,951	7,375,691	14,260	
5	43,677,000				
Right-of-Way acquisition		49,437,809	21,472,099	27,965,710	
Construction management	1,198,000	1,339,913	1,060,283	279,630	
Construction	51,726,000	19,368,157	9,665,665	9,702,492	
Betterments	970,000	1,336,518	1,305,757	30,761	
Total construction	105,269,000	78,872,348	40,879,495	37,992,853	
Indirect					
Personnel					
Salaries and wages	1,625,000	1,654,000	1,571,525	82,475	
Fringe benefits	467,000	477,000	480,984	(3,984)	
Employee related expenses	35,000	33,000	36,976	(3,976)	
Professional services	55,000	55,000	30,970	(3,970)	
Auditing/accounting	35,000	35,000	41,314	(6,314)	
<b>o o</b>	,	161,000	,	( , ,	
Disadvantaged business/labor compliance	161,000		90,681	70,319	
Legal	55,000	55,000	63,022	(8,022)	
Other	-	-	225,426	(225,426)	
Program management	923,000	952,000	654,870	297,130	
Brokerage	65,000	65,000	59,346	5,654	
Insurance	166,000	131,000	98,624	32,376	
Equipment expense	48,000	37,000	40,642	(3,642)	
Office rental expense	203,000	203,000	187,356	15,644	
Office operations	38,000	38,000	57,838	(19,838)	
Other	5,000	5,000	-	5,000	
Deferred indirect expense			(298,293)	298,293	
Total indirect	3,826,000	3,846,000	3,310,311	535,689	
Total operating expenditures	109,095,000	82,718,348	44,189,806	38,528,542	
Excess (deficiency) of revenues over expenditures	1,618,000	-	(7,718)	(7,718)	
Other financing sources (uses)	639.000	639.000	E43 E60	(04 440)	
Investment revenue	638,000	638,000	543,560	(94,440)	
Interest and related expenses	(562,000)	(562,000)	(4,907,655)	(4,345,655)	
Non-project reimburseable funds	285,000	285,000	312,798	27,798	
Non-project reimburseable expense	(285,000)	(285,000)	(312,798)	(27,798)	
Rental revenue	-	-	162,741	162,741	
Rental expense			(92,339)	(92,339)	
Net other financing sources (uses)	76,000	76,000	(4,293,693)	(4,369,693)	
Change in fund balance	1,694,000	76,000	(4,301,411)	(4,377,411)	
Fund balance at beginning of year	10 100 100	10 100 100	10 100 100		
Fund balance at beginning of year	10,199,199	10,199,199	10,199,199	-	
Fund balance at end of year \$	5 <u>11,893,199</u> \$	10,275,199 \$	5,897,788 \$	(4,377,411)	

#### Report of Independent Auditors on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Basic Financial Statements Performed in Accordance with *Government Auditing Standards*

#### Board of Directors Alameda Corridor – East Construction Authority

We have audited the financial statements of Alameda Corridor – East (ACE) Construction Authority, a component unit of San Gabriel Valley Council of Governments, as of and for the year ended June 30, 2011, and have issued our report thereon dated December 5, 2011. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

#### Internal Control Over Financial Reporting

Management of ACE Construction Authority is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered ACE Construction Authority's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of ACE Construction Authority's internal control over financial reports of ACE Construction Authority's internal control over financial reports of ACE Construction Authority's internal control over financial reports an opinion on the effectiveness of ACE Construction Authority's internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.



#### Compliance and Other Matters

As part of obtaining reasonable assurance about whether ACE Construction Authority's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the governing board, management, federal awarding agencies, and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Los Angeles, California December 5, 2011



San Gabriel Valley Council of Governments

Date: February 8, 2012

To: City Managers' Steering Committee

From: Nicholas T. Conway, Executive Director

Re: FY 2011-12 Mid-Year Budget Review and Revision

#### **Recommended Action:**

Receive and file second quarter financial report and approve FY 2011-2012 mid-year budget revision.

#### **Background:**

Attached please find FY 2011-12 mid-year report regarding budget to actual. Below is an overview of the proposed changes. As shown in Exhibit 1, revenues have increased slightly due to additional work activities approved by the Steering Committee and COG Governing Board. The increased revenue will be offset by increased expenditures directly related to those specific activities (LA River 2 Metals TMDL and LA Permit Group). Overall, the mid-year analysis indicates the COG will end the year with a small surplus (\$4,266), which is within \$1,000 of that which was estimated in June 2011.

#### Revenues

*General* – Dues from the majority of our member agencies are billed during the first quarter of the fiscal year and all have been paid. Los Angeles County Districts 1 and 5 and SGV Water District are billed on a mid-year cycle.

*Grants* – Grant income is received on a reimbursement basis and is shown when collected. Based on the current status of the COG's grants, the following budget revisions, indicated in parentheses, are being recommended:

• San Gabriel Valley Energy Wise Partnership (SGVEWP) (\$160,000): Since 2009, the SGVCOG has been in local government partnership with Southern California Edison (SCE) to increase energy-efficiency through the San Gabriel Valley. This effort, known as the San Gabriel Valley Energy Wise Partnership (SGVEWP), is funded by the California Public Utilities Commissions (CPUC) and has a number of specific objectives including: 1) assisting local governments in identifying and implementing energy efficiency projects in their municipal facilities; 2) providing training to city staff on energy efficiency issues and initiatives including Title 24, AB 32 and Demand Response; and 3) educating and outreaching to the public to increase knowledge of energy-efficiency in their homes and business and provide information on SCE's residential programs and rebates.

The adopted FY 2011-12 budget anticipated revenues of \$178,965 for this grant program. It is being recommended that this revenue be reduced to \$160,000. SGVEWP budgets are based on a calendar rather than a fiscal year, and staff anticipates that, based on the workplan that has been developed, there will be higher expenditures in the latter half of 2012, particularly during the summer months when workshops and other events tend to occur. Therefore, it is staff's

recommendation that approximately \$18,000 in revenues from this grant be carried forward to FY 2012-13.

- Watershed Coordinator (\$50,995): This grant was completed and closed out in January 2012. Therefore, actual final revenue and expenditures were included in the mid-year budget revision.
- LA Rivers Reach 2 Metals TMDL Contract (\$52,070): In 2009, on behalf of several of our member agencies, the City of Monrovia requested the COG's assistance in implementing mitigation strategies to meet the total maximum daily load (TMDL) requirements set forth by the Los Angeles Regional Water Quality Control Board (LARWCQB). In order to meet these requirements, the cities must participate in a monitoring program. However, in order to do so, the participating cities must be a part of a joint powers authority (JPA) to contractually engage a consultant. These cities have requested that the SGVCOG serve as this JPA, rather than have the cities create a separate JPA specifically for this purpose.

While the majority of work for this program was completed during FY 2009-10, the final completion of this project was on hold pending clarification and direction from the LARWQCB and final confirmation of the participating cities. While awaiting this information, the contract between COG and the selected firm, CDM, expired. However, a contract extension was approved at the November Governing Board meeting. All remaining funds for this project have been kept in a separate savings account while work was on hold.

• LA Permit Group Technical Assistance (\$107,888): The Los Angeles Regional Water Quality Control Board (LARWQCB) is currently developing a new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). This permit establishes regulations related to stormwater discharges. As the potential costs and the legal implications of the new permit are high, the municipalities in Los Angeles County formed the LA Permit Group to develop a unified voice to participate in a collaborative negotiating process. To prepare for negotiations for the new permit, the LA Permit Group is seeking technical consulting services to assist in the negotiations for the new permit.

In October 2011, the LA Permit Group asked the San Gabriel Valley Council of Governments to assist in developing a public procurement process to attain a technical consultant and to collect the funds necessary to support the contract. At the November Governing Board meeting, staff was directed to assess each SGVCOG jurisdiction a flat-fee not to exceed \$5,000 for these services as well as undertake an extensive outreach effort to collect a fee of \$5,000 from those jurisdictions that are outside of the San Gabriel Valley that are also co-permittees on the new permit.

The fee collected will only be used to cover the cost of this contract, which is \$107,888 and the SGVCOG will not receive any portion of the collected funds. If the amount of money collected exceeds the amount of the contract, each jurisdiction will be reimbursed a pro-rata share of the cost. The LA Permit Group selected Larry Walker Associates and work began in late December.

Currently, 31 cities have submitted letters of participation. Because that exceeds the amount needed to fund the contract, each city will be receiving a reimbursement.

#### **Expenditures**

*General:* Since the majority of the COG's operating expenditures are tied to fixed fee not to exceed contracts, the second quarter expenditures were as planned. The following adjustments are being recommended:

- Financial Audit Services (\$13,500): The adopted budget allocated \$15,000 for this item. The multi-year contract with the SGVCOG financial auditing firm, Vasquez and Company, for this service provides for a maximum payment of \$13,500 for FY 2011-12.
- **Bookkeeping/Accounting (\$12,000):** The adopted budget allocated \$12,500 for this item. This was to allow for a possible cost-of-living adjustment. The payments for this position have retained at the FY 2010-11 levels.
- Federal Advisory Services (\$5,000): The adopted budget allocated \$25,000 for this budget item. To date, the SGVCOG has not undertaken any public procurement process to secure a firm to provide Federal Advisory Services. The City Managers' Steering Committee and the Executive Committee are evaluating the value-added of having this service being provided on an ongoing basis. It is anticipated that a recommendation for moving forward will be made as part of the FY 2012-13 budget.
- **Printing (\$14,000):** The adopted budget allocated \$20,000 for this budget item, which includes reproduction equipment lease costs, per copy costs, and supplies. At mid-year, current expenditures are approximately \$6,000, therefore staff is recommending that the budget item be reduced by \$6,000.
- SGVCOG Organization and Operation Review (\$19,949): In July 2011, the SGVCOG Governing Board authorized undertaking a public procurement process to hire a firm to conduct an organization and operation review of the SGVCOG. However, at the time that the budget was adopted, an exact budget for this item had not been identified. In October, the Governing Board authorized entering into a contract for an amount not to exceed \$19,949 with City Gate Associates to conduct this study. It is anticipated that work on this study will be completed in February 2012.
- Los Angeles Regional Water Quality Control Board (LARWQCB) Municipal Representative Technical Assistance (\$7,500): In January 2012, the SGVCOG Governing Board authorized an expenditure of \$7,500 to provide partial funding for a staff assistant to Mayor Mary Ann Lutz (Monrovia), who serves as the municipal representative on the LARWQCB. Previously this position was funded by the League of Cities, Los Angeles Division. The SGVCOG is working with other regional entities, including Gateway COG, to fund the full cost (\$30,000) of this part-time position.
- Local Government Sustainable Energy Coalition (LGSEC) (\$10,000): In January 2012, the SGVCOG Governing Board authorized an expenditure of \$10,000 for one year in membership dues to join the LGSEC. This group represents local governments at California Public Utilities Commission (CPUC) and California Energy Commission (CEC) hearings. In the coming year, the CPUC will be ruling on the upcoming 2013-14 cycle of energy efficiency funding. Participation in this group will ensure that the San Gabriel Valley will receive its fair share of funding.

*Grants:* Based on workflow and other issues discussed above, the following revisions to grant-related expenses are being recommended:

• Miscellaneous Grant Expenses (\$5,000): The adopted budget allocated \$10,000 for this budget item, which includes costs that are related to the administration of grants but which cannot be charged to individual grants. These costs include publishing request for proposals in newspapers and journals, legal fees associated with reviewing and developing contracts, and grants research forum memberships. To date, actual expenditures are only \$500. Therefore it is recommended that the budget for this item be reduced by \$5,000.

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- Grants & Policy Committee Support (\$20,000): These funds are intended to support part-time staff assisting in the implementation of grants as well as management of policy committee related activities. SGVCOG staff has not recruited for this position and intend to delay recruitment until completion of the organizational study.
- Caltrans Audit Expenses (\$2,400): In September 2011, the Governing Board confirmed approval of a contract with Lopez and Company for an amount of up to \$26,500. The purpose of this contract was to prepare a response to the draft audit from Caltrans for the Community-Based Transportation Planning Grant. The majority of the work for this contract was completed in FY 2010-11, and this budget item reflects a final payment.
- Contract Administrator (\$20,000): As part of the FY 2011-12 budget, the Governing Board directed staff to include a line item for a "contract administrator." At that time the exact cost, contractual relationship, and workplan were not defined. Subsequent to adoption of the budget, the Governing Board took action to undertake an organization and operations review prior to taking action on the contract administrator position. As discussed above, that study is currently underway, and the funds originally allocated for the contract administrator were used to fund the study.
- Management Services Amendment #2 (\$160,000): The adopted budget allocated \$200,000 for this budget item, which includes staff charges for work associated with the SCE CEESP grant. All funds associated with this budget are expended on a reimbursement basis to Arroyo Associates, based on actual manhour charges. Staff is estimating that manhour charges will be approximately 20% lower than originally anticipated and is therefore recommending a revision to this budget item. This revision is being recommended due to a reallocation of manhours to other projects and grants, which has lowered the manhours available to work on this project. However, this project still remains on schedule for completion in October 2012. Because the SGVCOG is fully reimbursed for all costs associated with this grant, this reduction in expenses has no net impact on the budget.
- Watershed Coordinator Expenses (\$44,344): See explanation above under "Revenue."
- SCE Local Government Partnership Expenses (\$30,000): The adopted budget allocated \$20,000 for this item. Due to events, such as city recognition events, that are scheduled for Spring 2012, staff is recommending that this budget item be increased by \$10,000.
- SCE CEESP Expenses (\$2,200,000): The adopted budget allocated \$2,160,000 for this budget item, which represents consultant fees and city reimbursement costs associated with implementation of the SCE CEESP grant. The expenses for this project are being increased by \$40,000 to reflect reimbursements to cities for energy efficiency audits of municipal facilities. This work was originally anticipated to occur in FY 2011-12, but has been accelerated due to coincide with other work efforts on the grant. Because the SGVCOG is fully reimbursed for all costs associated with this grant, this increase in expenses has no net impact on the budget.
- LA Rivers Reach 2 Metals TMDL Contract (\$52,070): See explanation above under "Revenue."
- LA Permit Group Technical Assistance (\$107,888): See explanation above under "Revenue."

Budget Item	Adopted Budget FY 2010-11	Actual FY 2010-11	Adopted FY 2011-12	Mid-Year Actual	Proposed Mid-Year Revision
General Operating Income					
Member Dues	\$719,800	\$719,540	\$701,211	\$701,211	\$701,211
Interest	\$1,000	\$1,000	\$1,000		\$1,000
Total General Operating Income	<u>\$720,800</u>	<u>\$720,540</u>	<u>\$702,211</u>	<u>\$701,211</u>	<u>\$702,211</u>
Grants & Special Project Income					
SCE Local Government Partnership	\$126,343	\$102,878	\$178,965	\$73,299	\$160,000
Watershed Coordinator Grant	\$68,000	\$84,022	\$34,000	\$50,995	\$50,995
CalRecycle Grant SCE CEESP Grant	\$167,023 \$1,650,433	\$123,375 \$28,077	\$186,000 \$2,360,000	\$57,623 \$365,323	\$186,000 \$2,360,000
Energy Upgrade California	\$1,030,433	\$28,077 \$21,573	\$2,360,000	\$24,850	\$2,360,000
Total Grants & Special Project Income	\$2,011,799	\$359,925	\$2,813,965	\$572,090	\$33,000 \$2,811,995
Total Income	\$2,732,599	\$1,080,465	\$3,516,176	\$1,273,301	\$3,514,206
	<u> </u>	<u>\$1,000,402</u>	<u>\$5,510,170</u>	<u>\$1,275,501</u>	<u>\$3,314,200</u>
General Operating Expenses					
Ongoing Management and Operational Contracts					
Management Services Contract (MSC)	\$422,154	\$416,279	\$422,154	\$214,017	\$428,033
MTA Board Support	\$50,000	\$50,000	\$50,000	\$25,000	\$50,000
Legal Services	\$25,600	\$64,000	\$66,214	\$47,261	\$66,214
Financial Audit Services	\$13,000	\$13,000	\$15,000	\$13,500	\$13,500
Bookkeeping / Accounting	\$12,000	\$13,000	\$12,500	\$6,000	\$12,000
Consultant Services					
Federal Advisory Services	\$25,000	\$0	\$25,000	\$0	\$5,000
Strategic Planning	\$16,000	\$10,147	\$16,000	\$4,667	\$16,000
Media/Public Relations	\$10,000	\$240	\$10,000	\$715	\$10,000
Annual Evaluation	\$4,500	\$3,930	\$4,500	\$0	\$4,500
SGVCOG Organization and Operation Review			TBD	\$19,949	\$19,949
LARWQCB Technical Support					\$7,500
Memberships					¢10.000
Local Government Sustainable Energy Coalition					\$10,000
Special Events and Advocacy Travel Annual Federal Advocacy Delegation	\$17,000	\$11,265	\$17,000	\$0	\$17,000
Annual State Advocacy Delegation	\$5,000	\$11,205	\$5,000	\$0	\$17,000
Local Receptions	\$5,000	\$3,606	\$5,000	\$3,067	\$5,000
Governing Board and Committee Meetings	\$7,500	\$6,632	\$7,500	\$3,665	\$7,500
Direct Expenses	\$1,200	¢0,002	\$1,000	\$2,002	\$1,000
Board Stipends	\$11,000	\$11,650	\$11,000	\$4,850	\$11,000
Insurance	\$6,000	\$5,612	\$6,000	\$4,863	\$6,000
Printing / Publication	\$20,000	\$4,842	\$20,000	\$5,973	\$14,000
Miscellaneous	\$20,000	\$5,974	\$20,000	\$3,685	\$20,000
Total Operating Expenditures	<u>\$669,754</u>	\$620,177	<u>\$712,869</u>	\$337,262	<u>\$728,197</u>
Grants & Special Projects Expenses					
Grants & Special Projects Staff					
MSC - Amendment #1 (Energy Wise, CalRecycle, Watershed)	\$105,000	\$105,000	\$105,000	\$52,500	\$105,000
MSC - Amendment #2 (SCE CEESP)	\$55,428	\$21,896	\$200,000	\$57,147	\$160,000
MSC - Amendment #3 (Energy Upgrade)		\$21,573	\$55,000	\$24,850	\$55,000
Grants & Policy Committee Support	\$45,000	\$40,000	\$20,000	\$0	Ş0
California Redistricting Commission Technical Assistance		\$20,000		¢0 400	\$2.400
Caltrans Audit Response Expenses Contract Administrator		\$21,437	\$20,000	\$2,400 \$0	\$2,400
Consultant Services and Other Direct Grant Expenses			\$20,000	\$0	<u> </u>
Miscellaneous Grant Expenses	\$10,000	\$1,962	\$10,000	\$500	\$5,000
Information Technology	\$5,000	\$669	\$5,000	\$300	\$5,000
Watershed Coordinator Grant	\$60,000	\$73,237	\$30,000	\$44,344	\$44,344
SCE Local Government Partnership Expenses	\$10,000	\$13,198	\$20,000	\$20,104	\$30,000
CalRecycle Grant Expenses	\$143,372	\$100,000	\$175,000	\$20,189	\$175,000
SCE CEESP Expenses	\$1,593,645	\$6,181	\$2,160,000	\$308,176	\$2,200,000
Total Grant & Special Project Expenses	\$2,027,445	\$425,153	\$2,800,000	\$530,209	\$2,781,744
Total Expenditures	<u>\$2,697,199</u>	<u>\$1,045,331</u>	\$3,512,869	<u>\$867,471</u>	\$3,509,940
Surplus	\$35,400	\$35,135	\$3,307		\$4,266

RB-AR4770 DRAFT

Audited Financial Statements San Gabriel Valley Council of Governments (Primary Government) Year ended June 30, 2011 with Report of Independent Auditors

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### **Report of Independent Auditors**

### Members of the Governing Board San Gabriel Valley Council of Governments

We have audited the accompanying financial statements of San Gabriel Valley Council of Governments (the "COG") as of and for the year ended June 30, 2011, which collectively comprise the basic financial statements of the COG's primary government as listed in the table of contents. These financial statements are the responsibility of the COG's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the COG's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The financial statements referred to previously include only the primary government of the San Gabriel Valley Council of Governments, which consists of all funds, organizations, institutions, agencies, departments, and offices that comprise the COG's legal entity. The financial statements do not include financial data for the COG's legally separate component unit, which accounting principles generally accepted in the United States of America require to be reported with the financial data of the COG's primary government. As a result, the primary government financial statements do not purport to, and do not, present fairly, the financial position of the reporting entity of San Gabriel Valley Council of Governments, as of June 30, 2011, the changes in its financial position, or, where applicable, its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. In accordance with accounting principles generally accepted in the United States, the San Gabriel Valley Council of Governments, has issued separate reporting entity financial statements, for which we have issued our report dated January 17, 2012.

In our opinion, the financial statements referred to previously present fairly, in all material respects, the financial position of the primary government of San Gabriel Valley Council of Governments, as of June 30, 2011, and the changes in its financial position and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated January 17, 2012, on our consideration of San Gabriel Valley Council of Governments' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

The management's discussion and analysis on pages 3 through 6 is not a required part of the basic financial statements, but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries with management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Los Angeles, California January 17, 2012

Management's Discussion and Analysis

Our discussion and analysis of the San Gabriel Valley Council of Governments (the "COG") financial performance presents an overview of the COG's financial activities during the fiscal year ended June 30, 2011. We encourage readers to consider information presented here in conjunction with the financial statements (beginning on page 7). The financial statements, notes and this discussion and analysis were prepared by the management and are the responsibility of management.

### Background

The COG was created effective March 17, 1994 by a Joint Powers Agreement (JPA) among various member San Gabriel Valley Cities to promote cooperation, exchange ideas, coordinate regional government programs and to provide recommendations and solutions to common problems and to general concern of member governments.

In 1998, the COG created the Alameda Corridor - East (ACE) Construction Authority to mitigate the effects of increasing Union Pacific Railroad (UPRR) train traffic in the San Gabriel Valley. There were 55 "at-grade" crossings in the Valley where vehicular and pedestrian traffic cross directly over railroad tracks and must stop while trains pass by. This creates congestion, degrades the local environment, and compromises safety. The ACE Project will separate 20 crossings at the busiest intersections – by either raising or lowering the railroad or the intersecting street – along the 35-mile freight rail corridor from East Los Angeles to Pomona.

### **Financial Highlights**

FY 2010-11 marks the end of the second year of the COG's three-year strategic planning cycle. One of the major focuses of the current Strategic Plan is the implementation of the San Gabriel Valley's Energywise Partnership Program. This is a contractual relationship with Southern California Edison (SCE) focused on increasing energy-efficiency throughout the San Gabriel Valley. This effort has a number of specific objectives including: 1) assisting local governments in identifying and implementing energy-efficiency projects in their municipal facilities; 2) providing training to city staff on energy efficiency issues and initiatives including Title 24, AB 811, AB 32 and Demand Response; and 3) educating and outreaching to the public to increase knowledge of energy-efficiency in their homes and businesses and provide information on SCE's residential programs and rebates. While a third party implementer and qualified technical consultants are utilized to manage and implement specific energy-efficiency retrofit projects, the COG, as the local government partner, is primarily responsible for administration, marketing and outreach for the Partnership.

### **Overview of Financial Statements**

In FY 2010-11 income from dues decreased slightly from the previous year. This was due to changes in population figures associated with 2010 census and reconciliation of those numbers with State Department of Finance. FY 2010-11 marks the 5th consecutive year the COG has not increased dues for member agencies. Revenues from grants increased slightly due to the increased activity associated with the various programs using grant funds.

The financial statements present the financial picture of the COG from the economic resources measurement focus using the accrual basis of accounting. These statements include all recordable assets of the COG as well as all liabilities. All of the current year's revenues and expenses are taken into account regardless of when cash is received or paid. The statement of cash flows provides information about the COG's cash receipts, cash payments, and net changes in cash resulting from operating, capital and related investing activities during the reporting period.

The statement of net assets and the statement of revenues, expenses and changes in net assets report the COG's net assets and related changes in them. Net assets are the difference between the recorded assets and liabilities. The recorded activities include all revenues from dues and operating expenses related to the operation of the COG. In addition, all of the COG's revenues and expenses related to its other programs and services are reflected in the statements.

Various disclosures accompany the financial statements in order to provide a full picture of the COG's finances. The notes to the financial statements are on pages 10-16.

### **Financial Analysis**

### Statements of Net Assets

The following table summarizes the assets, liabilities and net assets of the COG as of June 30, 2011 and 2010:

		_	2011	_	2010
Current assets Capital assets, net		\$	775,491 -	\$	765,331 -
	Total assets	_	775,491	_	765,331
Current liabilities	Total liabilities	-	190,500 190,500	-	214,831 214,831
Net assets Invested in capital assets Restricted Unrestricted			- 15,922 569,069		- - 550,500
	Total net assets	\$ _	584,991	\$	550,500

Current assets increased this year by \$10,160 or 1% primarily because of higher cash balance and increased receivables from cost reimbursable grants.

Current liabilities decreased this year by \$24,331 or 11% primarily because of decreased project work being done by COG.

As mentioned earlier, net assets can serve as an indicator of financial health. The COG's assets exceeded liabilities by \$584,991 and \$550,500 as of June 30, 2011 and 2010, respectively.

### Statements of Revenues, Expenses and Changes in Net Assets

The following table presents the COG's revenues, expenses and changes in net assets for the years ended June 30, 2011 and 2010:

	_	2011		2010
Revenues:				
Dues				
Air Quality	\$	50,060	\$	143,687
Transportation	•	279,719	Ŧ	242,905
General fund		381,428		333,207
Grants and matches from other governments				
County of Los Angeles - Energy Upgrade		21,993		-
Water Quality Improvement		31,582		223,451
Southern California Edison - California Energy Efficiency		-		
Strategic Plan Implementation		33,024		-
Southern California Edison - Energywise		102,878		99,588
California Department of Resources - CalRecycle		133,216		98,847
California Department of Conservation - Watershed				
Coordinator Program		79,320		59,006
County of Los Angeles - Homeless Services		-		15,682
County of Los Angeles - Arrow Highway		-		12,000
Total revenues	_	1,113,220	_	1,228,373
Expenses:	_	, , , .	_	
Administrative		349,288		170,199
Air Quality		50,502		143,687
Transportation		280,007		242,905
Energy Upgrade		21,993		-
Water Quality Improvement		15,660		223,494
California Energy Efficiency Strategic Plan Implementation		33,261		-
Energywise		112,208		99,588
CalRecycle		137,431		101,583
Watershed Coordinator Program		80,449		60,122
Homeless Services		1,210		17,437
Arrow Highway	_	-		12,000
Total expenses	-	1,082,009	_	1,071,015
Operating income		31,211		157,358
Nonoperating income	_	3,280	_	4,056
Change in net assets		34,491		161,414
Net assets - beginning of year	-	550,500		389,086
Net assets - end of year	\$_	584,991	\$_	550,500

Revenues for COG consist primarily of dues from each member city, water districts and county, which comprised 64% of total operating revenue in FY 2011 compared to 59% of total operating revenue in FY 2010. Dues decreased \$8,592 or 1% over the prior year primarily because of the cancellation of the dues from Three Valleys Municipal Water District. Grants and matches from other governments were \$402,013 in FY2011 compared to \$508,574 in FY 2010, a decrease of \$106,561 or 21%. This decrease was due to the substantial completion of the Water Quality Improvement project. The revenues earned by the COG during the year would have been sufficient to cover its current obligations, including operating expenses.

Operating expenses were \$1,082,009 in FY1011 compared to \$1,071,015 in FY 2010, an increase of \$10,994 or 1%. Administrative expenses increased by \$179,089 or 105% because of one-time legal and audit expenses related to the Caltrans audit and litigation mentioned under Note 3 and 7.

Nonoperating income consists of investment income of \$3,280 in FY 2011 compared to \$4,056 for FY 2010, a decrease of \$766 or 19%. The decrease is directly attributed to lower rates paid by Local Agency Investment Fund (LAIF) in 2011.

### Capital Assets

The COG had \$0 invested in capital assets, net of depreciation, as of June 30, 2011 and 2010. The capital assets are fully depreciated as of June 30, 2011.

The COG's capital assets consist of office equipment only. Capital assets are purchased with governmental resources.

### Economic Factors and Next Year's Budget

The budget for fiscal year 2012 assumes that all on-hand net assets as of June 30, 2011 will be required and available to fulfill the program and administrative expense requirements.

### **Further Information**

This report has been designed to provide a general overview to our stakeholders of the COG's financial condition and related issues. Inquires should be directed to Mr. Nicholas T. Conway, Executive Director.

		Business-type activities
ASSETS		
Current assets		
Cash and cash equivalents	\$	591,923
Grants receivable		140,098
Other receivable		5,751
Interest receivable		586
Prepaid expenses - administration		37,133
	Total current assets	775,491
Capital assets		
Office equipment		8,645
Less accumulated depreciation		(8,645)
Propert	y and equipment, net	
	Total assets	775,491
LIABILITIES		
Current liabilities		
Accounts payable and accrued expenses		67,808
Due to government agency		42,687
Unearned revenue		80,005
Тс	tal current liabilities	190,500
NET ASSETS		
Invested in capital assets		-
Restricted for Water Quality Improvement		15,922
Unrestricted		569,069
	Net assets \$	584,991

See notes to financial statements.

Operating revenues

Dues:			
Air Quality		\$	50,060
Transportation		,	279,719
General Fund			381,428
			,
Grants and matches fror	n other governments:		
County of Los Angel	es - Energy Upgrade		21,993
Water Quality Improv	/ement		31,582
Southern California I	Edison - California Energy Efficiency		
Strategic Plan Imp	plementation		33,024
Southern California I	Edison - Energywise		102,878
California Departmer	nt of Resources - CalRecycle		133,216
California Departmer	nt of Conservation - Watershed		
Coordinator Prog	ram	_	79,320
	Total operating revenues	_	1,113,220
Operating expenses			
Administrative			349,288
Air Quality			50,502
Transportation			280,007
Energy Upgrade			21,993
Water Quality Improvement			15,660
	ncy Strategic Plan Implementation		33,261
Energywise			112,208
CalRecycle			137,431
Watershed Coordinator	Program		80,449
Homeless Services		_	1,210
	Total operating expenses	_	1,082,009
	Operating income		31,211
	-		
Nonoperating income			
Interest income		_	3,280
	Change in net assets		34,491
	Net assets - beginning of year		550,500
	Net assets - end of year	\$	584,991
		¥ =	

See notes to financial statements.

Adjustment to reconcile operating income to net cash	3,404 3,404 (6,729) 598,652
Cash and cash equivalents - beginning of year Cash and cash equivalents - end of year Reconciliation of operating loss to net cash used in operating activities: Operating income Adjustment to reconcile operating income to net cash	
Cash and cash equivalents - end of year S Reconciliation of operating loss to net cash used in operating activities: Operating income Adjustment to reconcile operating income to net cash	509 652
operating activities: Operating income Adjustment to reconcile operating income to net cash	\$ 598,852
used in operating activities:	\$ 31,211
Changes in operating assets and liabilities: Accounts receivable Grants receivable Other receivable Prepaid expenses - administration Accounts payable and accrued expenses Due to government agencies Unearned revenue Net cash used in operating activities	10,000 (27,234) (5,751) 5,972 (64,138) 42,687 (2,880) (10,133)

See notes to financial statements. 9

### NOTE 1 SUMMARY OF SIGNIFICANT POLICIES

### **Organization and Activities**

The San Gabriel Valley Council of Governments (the "COG") was created effective March 17, 1994 by a Joint Powers Agreement (JPA) among various member San Gabriel Valley Cities to promote cooperation, exchange ideas, coordinate regional government programs and to provide recommendations and solutions to common problems and to general concern of member governments. It is the immediate successor to the San Gabriel Valley Association of Cities, an unincorporated association. Its members organized the COG because they recognized a need for a more permanent and formalized structure.

The COG is supported by contributions from its members and also receives grant funds to conduct regional studies on Transportation, Air Quality, Environmental Matters, as a sub-grantee of other governmental entities. The COG is a non-profit California Public Agency and it is tax exempt.

### The Reporting Entity

These financial statements do not include funds of a component unit, the Alameda Corridor - East (ACE) Construction Authority.

### Basis of Accounting

The financial statements are prepared using the accrual basis of accounting. Revenues are recognized when earned, and expenses are recognized when incurred. As provided in GASB Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that Use Proprietary Fund Accounting*, COG does not apply Financial Accounting Standards Board pronouncements issued after November 30, 1989.

The following are revenue components of the COG's proprietary funds:

<u>Air Quality (AB 2766), Transportation (Proposition A&C) & Other</u> - Funds to foster consensus among cities in the San Gabriel Valley regarding policies and programs that address issues relating to land use, air quality, transportation, solid waste and other matters deemed essential.

<u>County of Los Angeles - Energy Upgrade</u> - Funds that enables single-family homeowners to make upgrades to reduce energy use, conserve resources and create more comfortable and efficient homes.

<u>Water Quality Improvement</u> - Funds to prepare and implement a Coordinated Implementation Plan (CIP) to reduce the amount of metal pollutants in the Los Angeles River and its Tributaries.

<u>Southern California Edison - California Energy Efficiency Strategic Plan</u> <u>Implementation</u> - Funds for the implementation of certain energy efficiency programs under the Decision 09-09-47 of the California Public Utilities Commission including the Energy Leader Partnership Program.

### NOTE 1 SUMMARY OF SIGNIFICANT POLICIES (CONTINUED)

### **Basis of Accounting (Continued)**

<u>Southern California Edison – Energywise</u> - Funds to implement a program to reduce energy usage in the region by providing enhanced rebates for installing energy efficiency measures in municipal facilities, technical assistance, and various training and educational opportunities.

<u>California Department of Resources – CalRecycle</u> – Funds to improve the management of household hazardous waste.

<u>California Department of Conservation – Watershed Coordinator Program</u> -Funds to finance a Watershed Coordinator position for the COG. The watershed that is intended to benefit from the activities of COG's Watershed Coordinator is the San Gabriel Valley Watershed.

### Cash and Cash Equivalents

The COG considers money market funds and all equivalent liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

### **Grants Receivable**

Grants receivable relate to expense reimbursement from governmental agencies and are expected to be fully collectible. Accordingly, an allowance for doubtful accounts is not provided.

### **Office Equipment**

Office equipment is carried on historical cost. Depreciation is provided using the straight-line method over the individual assets' estimated useful life, usually five years for computers, copiers and other electronic equipment, ten years for cabinets, desks and furniture.

### **Unearned Revenue**

Some members pay their dues in advance. These amounts are reported in unearned revenue in the financial statements.

### **Use of Estimates**

The presentation of financial statements in conformity with generally accepted accounting principles (GAAP) requires the use of estimates in many areas. Estimates used in these financial statements relate primarily to fixing estimated useful lives to depreciable assets. Based upon the preceding information, estimates may not have a material effect on these financial statements.

### NOTE 2 CASH AND CASH EQUIVALENTS

Cash and cash equivalents as of June 30, 2011 are classified in the accompanying financial statements as follows:

Statement of net assets:

Cash and cash equivalents	\$ 591,923
Total cash and cash equivalents	\$ 591,923

Cash and cash equivalents as of June 30, 2011 consist of the following:

Deposits with financial institution	\$ 170,978
Investments	420,945
Total cash and cash equivalents	\$ 591,923

# Investments Authorized by the California Government Code and San Gabriel Valley Council of Governments' Investment Policy

The table below identifies the investment types that are authorized for COG by the California Government Code (or COG's investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or COG's investment policy, where more restrictive) that address interest rate risk, credit risk, and concentration of credit risk.

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment in One Issuer
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
U.S. Agency Securities	5 years	None	None
Banker's Acceptances	180 days	15%	5%
Commercial Paper	180 days	15%	5%
Negotiable Certificates of Deposit	5 years	30%	None
Repurchase Agreements	30 days	None	None
Reverse Repurchase Agreements	92 days	5%	None
Medium-Term Notes	5 years	20%	None
Mutual Funds	N/A	20%	10%
Money Market Mutual Funds	N/A	0%	10%
County Pooled Investment Funds	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None
JPA Pools (other investment pools)	N/A	None	None

### NOTE 2 CASH AND CASH EQUIVALENTS (CONTINUED)

### **Disclosures Relating to Interest Rate Risk**

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that the COG manages its exposure to interest rate risk is by purchasing a combination of shorter-term and longer-term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming due over time as necessary to provide the cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of COG's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the COG's investments by maturity.

Investment T	уре	Total	12 Months or less	13-24 Months		25-60 Months		ore than Months
LAIF	\$ Total \$	420,945 420,945 \$	420,945 420,945 \$		\$ \$	-	\$\$	-

### Investment with Fair Values Highly Sensitive to Interest Rate Fluctuations

The COG has no investments that are highly sensitive to interest rate fluctuations (to a greater degree than already indicated in the information provided above).

### **Credit Risk**

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, COG's investment policy, or debt agreements, and the actual rating as of year end for each investment type.

			Minimum	Exemp	t _	R	ating	as of Ye	ear I	End
			Legal	from						Not
Investment T	уре	_	Rating	Disclosu	re	AAA		AA		Rated
LAIF	\$	420,945 \$	-	\$	_\$_	-	_\$	-	_\$_	420,945
	Total \$	420,945 \$	-	\$	\$	-	\$	-	\$	420,945

### **Concentrations of Credit Risk**

The investment policy of the COG contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. As of June 30, 2011, the COG had no investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total COG investments.

The COG does not have any investments in any one issuer that represent 5% or more of total investments.

### NOTE 2 CASH AND CASH EQUIVALENTS (CONTINUED)

### **Custodial Credit Risk**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code and COG's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits or investments, other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by State or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under State law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure local government units' deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits. As of June 30, 2011, none of COG's deposits with financial institutions in excess of Federal depository insurance limits were held in uncollateralized accounts.

The COG is a voluntary participant in the Local Agency Investment Fund (LA IF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. At June 30, 2011, the total market value of LAIF, including accrued interest was approximately \$66.49 billion. The fair value of the COG's investment in this pool is \$420,945 at June 30, 2011 based upon the COG's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of the portfolio). LAIF's (and the COG's) exposure to risk (credit, market or legal) is not currently available.

### NOTE 3 DUE TO GOVERNMENT AGENCY

The California Department of Transportation Audits and Investigation (A& I) audited the costs claimed by COG totaling \$245,130 for work performed under Agreement 74A0238 (Agreement) with California Department of Transportation (Caltrans). The Agreement period was March 1, 2006 through March 31, 2008. Based on the results of the audit, A & I determined that the COG owed \$89,262 of reimbursed costs not adequately supported and not in compliance with the Agreement provisions, and the State and federal regulations.

On December 12, 2011, Caltrans issued a letter to the COG reducing the liability from \$89,262 to \$42,687, provided COG implement certain action plans.

Of the total \$42,687 due to Caltrans, \$5,751 will be collected from the City of Irwindale.

### NOTE 4 ADMINISTRATIVE EXPENSES

The following were the administrative expenses for the year ended June 30, 2011:

Consultant fee	\$	124,949
Insurance		4,662
Legal fees		60,070
Accounting and audit fees		48,387
Stipends		11,500
Dues and subscriptions		514
Meetings		29,350
Committee support		19,328
Printing/publications		5,803
Annual evaluation		3,930
Information technology		669
Unreimbursable grant expenses		1,732
Disallowed costs, net (see Note 3)		36,936
Miscellaneous	_	1,458
	Total \$	349,288

### NOTE 5 ACE CONSTRUCTION AUTHORITY (COMPONENT UNIT)

Because of the size and scope of activities involving the Alameda Corridor - East project, a separate entity (ACE Construction Authority) was set up for this purpose. While affiliated, ACE Construction Authority acts separately from the COG. ACE Construction Authority began operations in October 1998, and is empowered to conduct business, hire the necessary consultants and contractors, enter into contracts and agreements, and to issue debt instruments as needed.

The COG entered into an agreement to borrow up to \$100,000,000 by issuance of grant anticipation notes, guaranteed by a letter of credit, and collateralized by the pledge of grant revenues. Balances outstanding have been as high as \$100,000,000. At report date June 30, 2011, balances owed amount to \$27,350,000, and are reflected on the financial statements of ACE Construction Authority. All of the proceeds of the issue have been received by the ACE Construction Authority and its attendant interest, costs and fees have been paid by ACE Construction Authority.

Management has elected not to report the above transaction on these financial statements primarily because of its size, and the fact that the transaction amounts to conduit financing, which is similar to a municipality issuing bonds for a hospital located within its boundaries or of mortgage revenue bonds to be paid by homeowners in an Affordable Housing project.

### NOTE 6 RELATED PARTY TRANSACTION

The COG has an agreement with Arroyo Associates, Inc. (AAI) to conduct COG's dayto-day administration, management and operating activities. As part of the Agreement, the President of AAI assumes the role of the Executive Director for COG.

For the fiscal year ended June 30, 2011, the total payments to AAI were \$556,443, in accordance with the contract.

### NOTE 7 CONTINGENCIES

The COG is currently a party in a legal proceeding. After consultation with legal counsel, management estimates that the matter will be resolved without material effect on the COG's financial position.

### NOTE 8 SUBSEQUENT EVENTS

The COG has evaluated events subsequent to June 30, 2011 to assess the need for potential recognition or disclosure in the financial statements. Such events were evaluated through January 17, 2012, the date the financial statements were available to be issued. Based upon this evaluation, it was determined that no other subsequent events occurred that require recognition or additional disclosure in the financial statements.

# RB-AR4788 DRAFT

### Report of Independent Auditors on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

### Members of the Governing Board San Gabriel Valley Council of Governments

We have audited the financial statements of San Gabriel Valley Council of Governments (the "COG") as of and for the year ended June 30, 2011, which collectively comprise the basic financial statements of the COG's primary government and have issued our report thereon dated January 17, 2012. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in the *Government Auditing Standards*, issued by the Comptroller General of the United States.

### Internal Control Over Financial Reporting

Management of COG is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered the COG's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the COG's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the COG's internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the COG's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the governing board, management, federal awarding agencies, and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Los Angeles, California January 17, 2012

rb-ar4790 DRAFT

Audited Financial Statements and Supplementary Information San Gabriel Valley Council of Governments Year ended June 30, 2011 with Report of Independent Auditors

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# RB-AR4792

### **Report of Independent Auditors**

### Board of Directors San Gabriel Valley Council of Governments

We have audited the accompanying financial statements of the business-type activities and discretely presented component unit of San Gabriel Valley Council of Governments (the "COG"), as of and for the year ended June 30, 2011, which collectively comprise the COG's basic financial statements as listed in the table of contents. These financial statements are the responsibility of the COG's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the COG's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to previously present fairly, in all material respects, the financial position of the business-type activities and the discretely presented component unit of the San Gabriel Valley Council of Governments as of June 30, 2011, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we have also issued our report dated January 17, 2012, on our consideration of San Gabriel Valley Council of Governments' internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.



The management's discussion and analysis on pages 3 through 9 and budgetary comparison information on page 31 are not a required part of the basic financial statements, but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries with management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Los Angeles, California January 17, 2012 Our discussion and analysis of the San Gabriel Valley Council of Governments (the "COG") financial performance presents an overview of the COG's financial activities during the fiscal year ended June 30, 2011. We encourage readers to consider information presented here in conjunction with the financial statements (beginning on page 10). The financial statements, notes and this discussion and analysis were prepared by the management and are the responsibility of management.

### Background

The COG was created effective March 17, 1994 by a Joint Powers Agreement (JPA) among various member San Gabriel Valley Cities to promote cooperation, exchange ideas, coordinate regional government programs and to provide recommendations and solutions to common problems and to general concern of member governments.

In 1998, the COG created the Alameda Corridor-East (ACE) Construction Authority to mitigate the effects of increasing Union Pacific Railroad (UPRR) train traffic in the San Gabriel Valley. There were 55 "at-grade" crossings in the Valley where vehicular and pedestrian traffic cross directly over railroad tracks and must stop while trains pass by. This creates congestion, degrades the local environment, and compromises safety. The ACE Project will separate 20 crossings at the busiest intersections – by either raising or lowering the railroad or the intersecting street – along the 35-mile freight rail corridor from East Los Angeles to Pomona.

### **Financial Highlights**

FY 2010-11 marks the end of the second year of the COG's three-year strategic planning cycle. One of the major focuses of the current Strategic Plan is the implementation of the San Gabriel Valley's Energywise Partnership Program. This is a contractual relationship with Southern California Edison (SCE) focused on increasing energy-efficiency throughout the San Gabriel Valley. This effort has a number of specific objectives including: 1) assisting local governments in identifying and implementing energy-efficiency projects in their municipal facilities; 2) providing training to city staff on energy efficiency issues and initiatives including Title 24, AB 811, AB 32 and Demand Response; and 3) educating and outreaching to the public to increase knowledge of energy-efficiency in their homes and businesses and provide information on SCE's residential programs and rebates. While a third party implementer and qualified technical consultants are utilized to manage and implement specific energy-efficiency retrofit projects, the COG, as the local government partner, is primarily responsible for administration, marketing and outreach for the Partnership.

### **Overview of Financial Statements**

In FY 2010-11 income from dues decreased slightly from the previous year. This was due to changes in population figures associated with 2010 census and reconciliation of those numbers with State Department of Finance. FY 2010-11 marks the 5th consecutive year the COG has not increased dues for member agencies. Revenues from grants increased slightly due to the increased activity associated with the various programs using grant funds.

The financial statements present the financial picture of the COG from the economic resources measurement focus using the accrual basis of accounting. These statements include all recordable assets of the COG as well as all liabilities. All of the current year's revenues and expenses are taken into account regardless of when cash is received or paid. The statement of cash flows provides information about the COG's cash receipts, cash payments, and net changes in cash resulting from operating, capital and related investing activities during the reporting period.

The statement of net assets and the statement of revenues, expenses and changes in net assets report the COG's net assets and related changes in them. Net assets are the difference between the recorded assets and liabilities. The recorded activities include all revenues from dues and operating expenses related to the operation of the COG. In addition, all of the COG's revenues and expenses related to its other programs and services are reflected in the statements.

Various disclosures accompany the financial statements in order to provide a full picture of the COG's finances. The notes to the financial statements are on pages 13 - 30.

### **Financial Analysis**

### Statements of Net Assets

The following table summarizes the assets, liabilities, and net assets of COG's primary government as of June 30, 2011 and 2010:

		2011	-	2010
Current assets Capital assets	\$	775,491 -	\$	765,331 -
	Total assets	775,491	-	765,331
Current liabilities	Total liabilities	<u> </u>	-	214,831 214,831
Net assets Invested in capital assets Restricted Unrestricted	Total net assets \$	- 15,922 <u>569,069</u> 584,991	\$	- - 550,500 550,500

Current assets increased this year by \$10,160 or 1% primarily because of higher cash balance and increased receivables from cost reimbursable grants.

Current liabilities decreased this year by \$24,331 or 11% primarily because of decreased project work being done by COG.

As mentioned earlier, net assets can serve as an indicator of financial health. The COG's assets exceeded liabilities by \$584,991 and \$550,500 as of June 30, 2011 and 2010, respectively.

### Statement of Activities

The following table presents the COG's revenues, expenses, and changes in net assets for the years ended June 30, 2011 and 2010:

# **RB-AR4796**

### San Gabriel Valley Council of Governments Management's Discussion and Analysis FT Year ended June 30, 2011

	2011	-	2010
Revenues:			
Dues			
Air Quality \$	,	\$	143,687
Transportation	279,719		242,905
General fund	381,428		333,207
Grants and matches from other governments			
County of Los Angeles - Energy Upgrade	21,993		-
Water Quality Improvement	31,582		223,451
Southern California Edison - California Energy Efficiency			
Strategic Plan Implementation	33,024		-
Southern California Edison - Energywise	102,878		99,588
California Department of Resources - CalRecycle	133,216		98,847
California Department of Conservation - Watershed			
Coordinator Program	79,320		59,006
County of Los Angeles - Homeless Services	-		15,682
County of Los Angeles - Arrow Highway	-	-	12,000
Total revenues	1,113,220	-	1,228,373
Expenses:			
Administrative	349,288		170,199
Air Quality	50,502		143,687
Transportation	280,007		242,905
Energy Upgrade	21,993		242,000
Water Quality Improvement	15,660		223,494
California Energy Efficiency Strategic Plan Implementation	33,261		
Energywise	112,208		99,588
CalRecycle	137,431		101,583
Watershed Coordinator Program	80,449		60,122
Homeless Services	1,210		17,437
Arrow Highway	-,		12,000
Total expenses	1,082,009	-	1,071,015
Operating income	31,211		157,358
Nonoperating income	3,280	-	4,056
Change in net assets	34,491		161,414
Net assets - beginning of year	550,500	-	389,086
Net assets - end of year \$	584,991	\$	550,500

### San Gabriel Valley Council of Governments Management's Discussion and Analysis Year ended June 30, 2011

Revenues for COG consist primarily of dues from each member city, water districts and county, which comprised 64% of total operating revenue in FY 2011 compared to 59% of total operating revenue in FY 2010. Dues decreased \$8,592 or 1% over the prior year primarily because of the cancellation of the dues from Three Valleys Municipal Water District. Grants and matches from other governments were \$402,013 in FY2011 compared to \$508,574 in FY 2010, a decrease of \$106,561 or 21%. This decrease was due to the substantial completion of the Water Quality Improvement project. The revenues earned by the COG during the year would have been sufficient to cover its current obligations, including operating expenses.

Operating expenses were \$1,082,009 in FY1011 compared to \$1,071,015 in FY 2010, an increase of \$10,994 or 1%. Administrative expenses increased by \$179,089 or 105% because of one-time legal and audit expenses related to the Caltrans audit and litigation mentioned under Notes 7 and 11.

Nonoperating income consists of investment income of \$3,280 in FY 2011 compared to \$4,056 for FY 2010, a decrease of \$766 or 19%. The decrease is directly attributed to lower rates paid by Local Agency Investment Fund (LAIF) in 2011.

### **Capital Assets**

The COG had \$0 invested in capital assets, net of depreciation, as of June 30, 2011 and 2010. The capital assets are fully depreciated as of June 30, 2011.

The COG's capital assets consist of office equipment only. Capital assets are purchased with governmental resources.

### Component Unit

### Financial Highlights

ACE Construction Authority's financial highlights for the fiscal year ended June 30, 2011:

- Net assets decreased \$4.3 million, a decrease of 42.19% primarily as a result of arbitrage rebate payments on net interest generated by net proceeds from the investment of commercial paper.
- Construction in progress decreased \$47.5 million, a decrease of 20.5%.
- Total revenue decreased \$31.3 million, a decrease of 41.2%.
- Total project expense decreased \$34.8 million, a decrease of 43.8%.

### Statements of Net Assets

		June 30					
		2011		2010			
Current and other assets	\$	45,329,675	\$	123,817,067			
Capital assets		23,160		43,208			
Construction in progress		183,999,655		231,505,012			
Less due to member cities and							
Union Pacific Railroad	_	(183,999,655)		(231,505,012)			
Total assets		45,352,835		123,860,275			
Current liabilities		39,431,887		113,617,868			
Net assets	\$	5,920,948	\$	10,242,407			
	-						

All organizations are required to report construction in progress (that is, the sum of prior and current year's construction expense) on the Statement of Net Assets as an asset. This would normally be done by treating each year's construction as a capital expense which would be excluded from the Statement of Activities. However, the grant reimbursements generated by construction would be included in the Statement of Activities as revenue. The ACE Construction Authority is obligated to transfer components of completed projects to the UPRR and the cities so that they can be included in their financial statements. The resulting reduction in assets would flow through the Statement of Activities as a loss. The net effect would be to produce widely fluctuating Net Assets and Fund Balances depending on whether ACE Construction Authority was constructing (Surplus) or transferring assets to member cities (Deficit).

Therefore, the ACE Construction Authority elected to treat construction in progress as a matching asset and liability. This shows the total cost of ACE Construction Authority's projects and the resulting liability to transfer the assets upon completion while not unduly impacting the Statement of Activities.

Assets decreased by 63.4% to \$45.4 million mainly due to reducing the amount held in investments to pay down outstanding GANs to match lower levels of project activity, lower grants and unbilled receivables as a result of lower grant reimbursable incurred expenditures.

Construction in progress decreased 21% to \$184 million primarily as a result of the completion of the Sunset project without offsetting construction.

Deferred revenue (unearned and unavailable) increased 22.9% to \$5.6 million primarily due to having to recognize \$1.8 million of surplus rental property generating revenue after project was closed. Sale of this property is expected to take place within the next fiscal year.

COG, on behalf of the Authority, had \$27.35 million in variable rate, tax-exempt commercial paper outstanding as of June 2011. The decision as to how much to issue is made periodically by the ACE Construction Authority management in consultation with its financial advisors taking into account current and prospective cash flow needs.

Grants and unbilled receivables decreased 48.6% to \$4 million and 56.19% to \$7.6 million respectively due to lower reimbursable grant expenditures.

The FY2011 revised Budget for operating expenditures was \$82.7 million compared to \$97.5 million in FY2010. Actual total operating expenditures are \$44.2 million compared to \$78.5 million in FY2010.

Project revenues continue to closely track expenditures. ACE Construction Authority's policy is to avoid where possible costs not reimbursable under State and Federal guidelines; the Los Angeles County Metropolitan Transportation Authority (Metro) also provides project funds and, under separate agreement, continues to fund certain administrative expenses not reimbursable under federal and state regulations; Cities requesting work in excess of Caltrans guidelines (referred to as betterments) are paid for by the requesting city.

### Statements of Activities

	Years ended June 30				
	2011		2010		
Project expenses		-			
Direct (construction)	\$ 40,879,495	\$	74,840,690		
Indirect expenses charged to operations	3,735,496	_	4,554,512		
Total project expenses	44,614,991	-	79,395,202		
Revenues					
Grant reimbursements	44,181,756		74,623,951		
Other operating revenues	475,871		1,359,697		
Total revenues	44,657,627	-	75,983,648		
Income/(loss) from operations	42,636	-	(3,411,554)		
Nonoperating income (expense)					
Financing income	543,560		692,556		
Financing expense	(4,907,655)		(624,971)		
Net financing income (expense)	(4,364,095)	•	67,585		
Change in net assets	(4,321,459)		(3,343,969)		
Net assets at beginning of year	10,242,407	-	13,586,376		
Net assets at end of year	\$ 5,920,948	\$	10,242,407		

The ACE Construction Authority is reimbursed for indirect expenses based on Caltrans approved Indirect Cost Allocation Plan (ICAP) rate. The reimbursement is added to all Caltrans and Metro invoices and is calculated by applying the ICAP rate to direct salaries and wages and fringe benefits. The applied indirect expense to projects was lower than the actual indirect expense incurred, resulting in a deferral of \$298,293 to future years.

### Economic Factors and Next Year's Budget

The primary government's budget for fiscal year 2012 assumes that all on-hand net assets as of June 30, 2011 will be required and available to fulfill the program and administrative expense requirements.

### **Further Information**

This report has been designed to provide a general overview to our stakeholders of the COG's financial condition and related issues. Inquires should be directed to Mr. Nicholas T. Conway, Executive Director.

**RB-AR4801** 

# San Gabriel Valley Council of Governments Statement of Net Assets

June	30,	2011
------	-----	------

	Primary					
	Government			C	Component Unit	
	Business-type	-	Capital Project		•	Government-
	Activities	_	Fund		Adjustment	wide
Current assets						
Cash and cash equivalents	\$ 591,923	\$	24,378,470	\$	- \$	24,378,470
Grants receivable	140,098		4,032,710		-	4,032,710
Unbilled receivables	-		7,617,163		-	7,617,163
Interest receivable	586		16,430		-	16,430
Retention receivable	-		4,960,642		-	4,960,642
Receivable - other	5,751		120,656		-	120,656
Deferred cost incurred	-		2,331,369		-	2,331,369
Prepaid expenses:						
Administration	37,133		-		-	-
Insurance	-		34,693		-	34,693
Cost of issuance, commercial paper	-		74,351		-	74,351
Property held for sale	-		1,763,191		-	1,763,191
Total current assets	775,491	-	45,329,675		-	45,329,675
Noncurrent assets						
Leasehold improvements and equipment	8,645		-		332,897	332,897
Less accumulated depreciation and amortization	(8,645)		-		(309,737)	(309,737)
					. ,	. ,
Construction in progress	-		-		183,999,655	183,999,655
Less due to member cities and Union Pacific Railroad	-		-		(183,999,655)	(183,999,655)
Total assets	775,491	-\$	45,329,675	\$	23,160	45,352,835
Current liabilities Accounts payable and accrued expense Accrued retention payable Due to government agencies Deferred revenue Compensated absences Commercial paper Total current liabilities	67,808 - 42,687 80,005 - - 190,500	\$	5,456,811 895,520 5,622,131 107,425 27,350,000 39,431,887	\$	- - - - - -	5,456,811 895,520 - 5,622,131 107,425 27,350,000 39,431,887
FUND BALANCES/NET ASSETS Fund balance Nonspendable for: Deferred cost incurred Prepaid expenses Assigned: Capital project fund Total fund balance			2,331,369 109,044 <u>3,457,375</u> 5,897,788		- - - -	
Net assets						
Invested in capital assets	-			\$	23,160	23,160
Restricted	15,922					-
Unrestricted	569,069					5,897,788
Total net assets	\$ 584,991	-			\$	5,920,948
		•				· · · ·
Total liabilities and fund balance		\$	45,329,675	-		

## **RB-AR4802**

### San Gabriel Valley Council of Governments Statement of Activities Т Year ended June 30, 2011

								Compone	nt Unit
		Indirect Expense	Charges for	Program Revenue Operating Grants and	es Capital Grants and	Primary Government Business-type Activities Net (Expense) Revenue	Deficiency of Revenues over		Net (Expense) Revenue
Functions/Programs	Expenses	Allocation	Services	Contributions	Contributions	and Changes in Net Assets	Expenditures	Adiustments	and Changes in Net Assets
Primary government:						<u> </u>			<u> </u>
Business-type activities:									
General government	349,288	<b>-</b>	\$ 381,428	\$ - :	\$-	\$ 32,140			
Air Quality	50,502	-	50,060	-	-	(442)			
Transportation	280,007	-	279,719	-	-	(288)			
Energy Upgrade	21,993	-	-	21,993	-	-			
Water Quality Improvement	15,660	-	-	31,582	-	15,922			
California Energy Efficiency Strategic Plan Implementation	33,261	-	-	33,024	-	(237)			
Energywise	112,208	-	-	102,878	-	(9,330)			
Calrecyle	137,431	-	-	133,216	-	(4,215)			
Watershed Coordinator Program	80,449	-	-	79,320	-	(1,129)			
Homeless services	1,210	-	-	-	-	(1,210)			
Total business-type activities	1,082,009	<u> </u>	\$ 711,207	\$ 402,013	\$	31,211			
Component unit:									
Project expenses	40.879.495	3,715,448	\$ -	\$ -	\$ 44,657,627	-	\$ 62,684	\$ (20,048)	\$ 42,636
Financing expense	4,907,655	-	-	-	-	-	(4,907,655)	-	(4,907,655)
Total component unit S		3,715,448	\$	\$	\$ 44,657,627	-	(4,844,971)	(20,048)	(4,865,019)
General revenues:									
Interest income/ financing income						3,280	543,560		543,560
Change in net assets						34,491	(4,301,411)	(20,048)	(4,321,459)
Fund balance/Net assets, begin	ning of year					550,500	10,199,199	43,208	10,242,407
Fund balance/Net assets, end o	fyear					\$584,991	\$5,897,788	\$23,160	\$5,920,948_

Cash flows from operating activities Cash receipts from cities Cash receipts from all others Cash paid for operating expenses Net cash used in operating activities	\$ -	718,327 374,779 (1,103,239) (10,133)
Cash flows from investing activities Cash receipts from interest Cash provided by investing activitites	_	3,404 3,404
Net decrease in cash and cash equivalents		(6,729)
Cash and cash equivalents - beginning of year Cash and cash equivalents - end of year	\$_	598,652 591,923
Reconciliation of operating income to net cash used in operating activities: Operating income Adjustment to reconcile operating income to net cash used in operating activities:	\$	31,211
Changes in operating assets and liabilities: Accounts receivable Grants receivable Other receivable Prepaid expenses Accounts payable and accrued expenses Deferred revenue Due to government agencies Net cash used in operating activities		10,000 (27,234) (5,751) 5,972 (64,138) (2,880) 42,687 (10,133)

### NOTE 1 SUMMARY OF SIGNIFICANT POLICIES

### Organization and activities

The San Gabriel Valley Council of Governments (the "COG") was created effective March 17, 1994 by a Joint Powers Agreement (JPA) among various member San Gabriel Valley Cities to promote cooperation, exchange ideas, coordinate regional government programs and to provide recommendations and solutions to common problems and to general concern of member governments. It is the immediate successor to the San Gabriel Valley Association of Cities, an unincorporated association. Its members organized the COG because they recognized a need for a more permanent and formalized structure.

The COG is supported by contributions from its members and also receives grant funds to conduct regional studies on Transportation, Air Quality, Environmental Matters, as a sub-grantee of other governmental entities. The COG is a non-profit California Public Agency and it is tax exempt.

### **Reporting entity**

The accompanying financial statements present the COG (the primary government) and its component unit, the Alameda Corridor-East Construction Authority (ACE Construction Authority). As defined by GASB Statement No. 14, component units are legally separate entities that are included in the primary government's reporting entity because of the significance of their operating or financial relationships with the primary government. The discretely presented component unit is reported in a separate column in the government-wide financial statements (see note below for description) to emphasize that it is legally separate from the COG. The COG and its component unit are together referred to herein as the *reporting entity*.

The ACE Construction Authority is a single purpose construction authority created by the COG in 1998 to mitigate the effects of increasing Union Pacific Railroad train traffic in the San Gabriel Valley. Separate financial statements for the ACE Construction Authority are issued.

### Government-wide and fund financial statements

The government-wide financial statements (i.e., the statement of net assets and the statement of activities) report information about the primary government (the COG) and its component unit (ACE Construction Authority). The financial statements are prepared using the accrual basis of accounting.

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**Measurement focus, basis of accounting and financial statement presentation** The government-wide and proprietary fund financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. The Statement of Activities presents changes in Net Assets. (This is equivalent to an Income and Changes in Equity Statement in private sector companies.) Revenues are recorded when earned and expenses are recognized at the time of the causal event.

As provided in GASB Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that Use Proprietary Fund Accounting*, COG does not apply Financial Accounting Standards Board pronouncements issued after November 30, 1989.

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. ACE Construction Authority recognizes reimbursements from grants as revenues to the extent reimbursing obligations are earned on or before June 30, 2011 and are therefore the same under both modified accrual and full accrual basis. Major interest bearing debt is short-term in nature so there is no difference relating to accrued interest owed.

Based upon the nature of the operations of ACE Construction Authority, only a capital projects fund is utilized (a governmental fund type). Amounts reflected in the adjustment column in the financial statements of ACE Construction Authority represents capital assets and construction in progress (less due to member cities and Union Pacific Railroad) used on governmental activities that are not current financial resources and therefore are not reported as assets in the governmental fund balance and the related depreciation expense on the capital assets reported in the government-wide statement of activities do not require the use of current financial resources and therefore not reported as an expenditure in the governmental funds.

#### Description of funds

#### Proprietary Funds

The focus of proprietary fund measurement is upon determination of operating income, changes in net assets, financial position, and cash flows. The generally accepted accounting principles applicable are those similar to businesses in the private sector. The following are revenue components of the COG's proprietary funds:

<u>Air Quality (AB 2766), Transportation (Proposition A&C) & Other</u> - Funds to foster consensus among cities in the San Gabriel Valley regarding policies and programs that address issues relating to land use, air quality, transportation, solid waste and other matters deemed essential.

<u>County of Los Angeles - Energy Upgrade</u> - Funds that enables single-family homeowners to make upgrades to reduce energy use, conserve resources and create more comfortable and efficient homes.

## Description of funds (continued)

Proprietary Funds (continued)

<u>Water Quality Improvement</u> - Funds to prepare and implement a Coordinated Implementation Plan (CIP) to reduce the amount of metal pollutants in the Los Angeles River and its Tributaries.

<u>Southern California Edison - California Energy Efficiency Strategic Plan</u> <u>Implementation</u> - Funds for the implementation of certain energy efficiency programs under the Decision 09-09-47 of the California Public Utilities Commission including the Energy Leader Partnership Program.

<u>Southern California Edison – Energywise</u> - Funds to implement a program to reduce energy usage in the region by providing enhanced rebates for installing energy efficiency measures in municipal facilities, technical assistance, and various training and educational opportunities.

<u>California Department of Resources – CalRecycle</u> – Funds to improve the management of household hazardous waste.

<u>California Department of Conservation – Watershed Coordinator Program</u> -Funds to finance a Watershed Coordinator position for the COG. The watershed that is intended to benefit from the activities of COG's Watershed Coordinator is the San Gabriel Valley Watershed.

#### Governmental Fund

Capital Projects Fund - Accounts for the activity of obtaining support from governmental groups, determining funding and specifications for structures needed and to fund the contracts for the grade crossing improvements. This fund accounts for most of the activities of ACE Construction Authority.

#### Fund balance reporting

During the fiscal year ended June 30, 2011, ACE Construction Authority has implemented Governmental Accounting Standards Board (GASB) Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*. This Statement establishes the following fund balance classifications that comprise a hierarchy based primarily on the extent to which a government is bound to observe constraints imposed upon the use of the resources reported in governmental funds:

<u>Nonspendable fund balance</u> includes amounts that cannot be spent because they are either (a) not in spendable form or (b) legally or contractually required to be maintained intact. Examples are inventories, prepaid expenses, long-term receivables, or non-financial assets held for resale.

<u>Restricted fund balance</u> includes resources that are subject to externally enforceable legal restrictions. It includes amounts that can be spent only for the specific purposes stipulated by constitution, external resource providers, or through enabling legislation.

#### Fund balance reporting (continued)

<u>Committed fund balance</u> includes amounts that can be used only for the specific purposes determined by a formal action of ACE Construction Authority's highest level of decision-making authority (Board of Directors).

<u>Assigned fund balance</u> consists of funds that are set aside for specific purposes by ACE Construction Authority's highest level of decision making authority or a body or official that has been given the authority to assign funds. Assigned funds cannot cause a deficit in unassigned fund balance.

<u>Unassigned fund balance</u> - is the residual classification for ACE Construction Authority's general fund and includes all spendable amounts not contained in the other classifications. This category also provides the resources necessary to meet unexpected expenditures and revenue shortfalls.

The Board of Directors, as ACE Construction Authority's highest level of decisionmaking authority, may commit fund balance for specific purposes pursuant to constraints imposed by formal actions taken. Committed amounts cannot be used for any other purpose unless the Board of Directors removes or changes the specific use through the same type of formal action taken to establish the commitment. ACE Construction Authority does not have any fund balance that meet this classification as of June 30, 2011.

The Board of Directors delegates the authority to assign fund balance to the Chief Executive Officer for purposes of reporting in the annual financial statements.

ACE Construction Authority considers the restricted fund balances to have been spent when expenditure is incurred for purposes for which both unrestricted and restricted fund balance is available. ACE Construction Authority considers unrestricted fund balances to have been spent when an expenditure is incurred for purposes for which amounts in any of the unrestricted classifications of fund balance could be used. When expenditures are incurred for purposes for which amounts in any of the unrestricted fund balance classifications could be used, it is the policy of ACE Construction Authority to reduce the committed amounts first, followed by assigned amounts, and then unassigned amounts.

#### Budgetary reporting

ACE Construction Authority's Board approved the FY 2011 budget in July 2010.

The budget was based on estimated expenditures over the operating period. Significant under-runs were initially encountered as the Authority experienced delays in obtaining various Caltrans' required approvals for major design contracts from Federal and State grantors.

#### Budgetary reporting (continued)

It is the ACE Construction Authority's policy not to start any phase of a project (i.e., design, right-of-way acquisition, or construction), unless there are sufficient funds to complete that phase. All project related expenses are reimbursable from existing grants and, as such, budgeted revenues were not budgeted separately, but derived from budgeted expenditures.

#### Cash and investments

The COG considers money market funds and all equivalent liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

#### Grants receivable

Grants receivable relate to expense reimbursement from governmental agencies and are expected to be fully collectible. Accordingly, an allowance for doubtful accounts is not provided.

#### Grant revenues and expenditures

All grants are between the COG and the granting authority. ACE Construction Authority has been given authority to obtain and administer funding in the name of COG. The MTA grant was in existence when ACE Construction Authority was created and all subsequent grants therefore are administered by ACE Construction Authority.

To-date, all grants with the exception of the UPRR contributions are, and are anticipated to be in the future, cost reimbursable. That is, ACE Construction Authority must first expend the money and then bill for reimbursement from the grantors.

#### Leasehold improvements and equipment

Phases of equipment and other improvements that can be capitalized are recorded as expenditures in the capital projects fund. The threshold for capitalization has been \$5,000 since FY 2005 in accordance with Federal guidelines. On the government-wide financial statements such items are recorded as capital assets and are depreciated based upon their estimated useful lives on a straight-line basis. Useful lives of assets categories are as follows:

Leasehold improvements	10 years
Office furniture	10 years
Computer, office and telephone equipment	5 years

#### Unearned revenue

Some members pay their dues in advance. These amounts are reported in unearned revenue in the basic financial statements.

#### Short-term notes (Commercial paper)

In March 2001, SGVCOG authorized the issuance of up to \$100,000,000 in short-term variable rate tax-exempt grant anticipation notes. The notes are backed by a letter of credit from Bayern LB.

As of June 30, 2011, \$27.35 million in variable rate, tax-exempt commercial paper is outstanding. The decision as to how much to issue is made periodically by the ACE Construction Authority management in consultation with its financial advisors taking into account current and prospective cash flow needs.

ACE Construction Authority management and financial advisors review on a periodic basis the current and prospective cash requirements in determining the amount of commercial paper to be issued.

Arbitrage has been earned on the differential between interest earned on investment with the State Treasurer's Local Agency Fund (LAIF) and a local bank, and to holders of the commercial paper. Arbitrage earned may be required to be refunded unless certain specific Internal Revenue Code requirements are met. Specific provisions of the borrowing are described in Note 5.

#### Use of estimates

The process of presenting financial information requires the use of estimates and assumptions regarding certain assets and liabilities and their related income and expense items. Grant reimbursements and construction costs are especially vulnerable to such assumptions and accordingly actual results may differ from estimated amounts.

#### Property held for sale

The property held for sale is recorded at the lower of acquisition cost or estimated net realizable value.

#### NOTE 2 CASH AND INVESTMENTS

The cash and cash equivalents as of June 30, 2011 are as follows:

#### Primary government:

Deposits with financial institution	\$ 170,978
Investments	 420,945
Total cash and cash equivalents	\$ 591,923

#### Component unit:

Cash in bank	\$ 7,577,692
Pooled funds	1,543,746
Money market funds	2,202,259
Medium-term notes	2,438,260
US Treasury obligations	 10,616,513
Total cash and investments	\$ 24,378,470

## Investments Authorized by the California Government Code and San Gabriel Valley Council of Governments' Investment Policy

The table below identifies the investment types that are authorized for COG by the California Government Code (or COG's investment policy, where more restrictive). The table also identifies certain provisions of the California Government Code (or COG's investment policy, where more restrictive) that address interest rate risk, credit risk, and concentration of credit risk.

#### Primary government and component unit:

Authorized Investment Type	Maximum Maturity	Maximum Percentage of Portfolio	Maximum Investment in One Issuer
Local Agency Bonds	5 years	None	None
U.S. Treasury Obligations	5 years	None	None
U.S. Agency Securities	5 years	None	None
Banker's Acceptances	180 days	15%	5%
Commercial Paper	180 days	15%	5%
Negotiable Certificates of Deposit	5 years	30%	None
Repurchase Agreements	30 days	None	None
Reverse Repurchase Agreements	92 days	5%	None
Medium-Term Notes	5 years	20%	None
Mutual Funds	N/A	20%	10%
Money Market Mutual Funds	N/A	0%	10%
County Pooled Investment Funds	N/A	None	None
Local Agency Investment Fund (LAIF)	N/A	None	None
JPA Pools (other investment pools)	N/A	None	None

#### **Investments Authorized by Debt Agreements**

Investment of debt proceeds held by bond trustee are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or ACE Construction Authority's investment policy.

The table below identifies the investment types that are authorized for investments held by bond trustee. The table also identifies certain provisions of these debt agreements that address interest rate risk, credit risk, and concentration of credit risk.

Authorized Investment Type	Maximum Maturity	Maximum Percentage Allowed in	Maximum Investment One Issuer
U.S. Treasury Obligations	None	None	None
U.S. Agency Securities	None	None	None
Banker's Acceptances	180 days	None	None
Commercial Paper	270 days	None	None
Money Market Mutual Funds	N/A	None	None
Investment Contracts	30 years	None	None

#### **Disclosures Relating to Interest Rate Risk**

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. One of the ways that the COG manages its exposure to interest rate risk is by purchasing a combination of shorter-term and longer-term investments and by timing cash flows from maturities so that a portion of the portfolio is maturing or coming due over time as necessary to provide the cash flow and liquidity needed for operations.

Information about the sensitivity of the fair values of COG's investments to market interest rate fluctuations is provided by the following table that shows the distribution of the COG's investments by maturity.

Primary government:

		Remaining maturity in months								
			12 Months 13-24				25-60		More than	
Investmen	it Type	Total		or less		Months		Months		60 Months
LAIF	\$	420,945	\$	420,945	_\$_	-	_ \$	-	_\$_	-
	Total \$	420,945	\$	420,945	\$	-	\$	-	\$	-

#### Component unit:

	Remaining maturity in months								
Investment Type	Total	12 Months or less	13 to 24 Months	25 to 60 Months	More than 60 months				
LAIF Held by trustee:	\$ 1,543,746 \$	5 1,469,646 \$	44,769 \$	29,331 \$	-				
Money market funds	2,202,259	2,202,259	-	-	-				
Investment contracts	13,054,773	-	13,054,773	-	-				
Total	\$ 16,800,778 \$	3,671,905 \$	13,099,542 \$	29,331 \$					

#### Investment with Fair Values Highly Sensitive to Interest Rate Fluctuations

The COG and its component unit have no investments that are highly sensitive to interest rate fluctuations (to a greater degree than already indicated in the information provided above).

#### **Credit Risk**

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, COG's investment policy, or debt agreements, and the actual rating as of year end for each investment type.

#### Primary government:

			Minimum	Exempt		Rat	nd		
Investme	ent Type		Legal Rating	from Disclosure	<u> </u>	AAA	 AA		Not Rated
LAIF	\$	420,945	N/A	\$	_\$	_	\$ -	_\$	420,945
	Total \$	420,945	:	\$	\$	-	\$ -	\$	420,945

#### Component unit:

		Minimum		Minimum Exempt		Rating as of year end				
Investment Type		Legal Rating		from Disclosure	AAA	Aa		Not rated		
LAIF \$ Held by trustee:	1,543,746	N/A	\$	- \$	- 5	5	- \$	1,543,746		
Money market funds	2,202,259	А		-	2,202,259		-	-		
Investment contracts	13,054,773	N/A		-	13,054,773		-	-		
Total \$	16,800,778		\$	- \$	15,257,032	5	- \$	1,543,746		

#### **Concentrations of Credit Risk**

The investment policy of the COG contains no limitations on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. As of June 30, 2011, the COG had no investments in any one issuer (other than U.S. Treasury securities, mutual funds, and external investment pools) that represent 5% or more of total COG investments.

The COG does not have any investments in any one issuer that represent 5% or more of total investments.

#### **Custodial Credit Risk**

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that. in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction. a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code and COG's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits or investments, other than the following provision for deposits: The California Government Code requires that a financial institution secure deposits made by State or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under State law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure local government units' deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits. As of June 30, 2011, none of COG's deposits with financial institutions in excess of Federal depository insurance limits were held in uncollateralized accounts.

The COG is a voluntary participant in the Local Agency Investment Fund (LA IF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. At June 30, 2011, the total market value of LAIF, including accrued interest was approximately \$66.49 billion. The fair value of the COG's investment in this pool is \$420,945 at June 30, 2011 based upon the COG's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of the portfolio). LAIF's (and the COG's) exposure to risk (credit, market or legal) is not currently available.

#### **Custodial Credit Risk (Continued)**

As of June 30, 2011, the following investment types were held by the same brokerdealer (counterparty) that was used by ACE Construction Authority to buy the securities:

	Reported
Investment Type	 Amount
Money market funds	\$ 2,202,259

ACE Construction Authority is a voluntary participant in the Local Agency Investment Fund (LAIF) that is regulated by the California Government Code under the oversight of the Treasurer of the State of California. At June 30, 2011, the total market value of LAIF, including accrued interest was approximately \$66.52 billion. The fair value of ACE Construction Authority's investment in this pool is \$1,543,746 at June 30, 2011 based upon ACE Construction Authority's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of the portfolio). LAIF's (and ACE Construction Authority's) exposure to risk (credit, market or legal) is not currently available.

#### NOTE 3 LEASEHOLD IMPROVEMENTS AND EQUIPMENT

The leasehold improvement and equipment of the component unit are recorded at cost and consist of the following:

	alances at uly 1, 2010	Additions	Deletions	Balances at June 30, 2011
Cost:				
Leasehold improvements	\$ 19,762	\$ - \$	- 5	5 19,762
Computer equipment				
Hardware	159,992	-	-	159,992
Software	105,692	-	-	105,692
Website	3,393	-	-	3,393
Telephone equipment	12,086	-	-	12,086
Office furniture	 31,972	-		31,972
Total cost	 332,897	-	-	332,897
Less accumulated depreciation for:				
Leasehold improvements	18,774	988	-	19,762
Computer equipment				
Hardware	142,968	9,259	-	152,227
Software	83,186	8,376	-	91,562
Website	3,393	-	-	3,393
Telephone equipment	12,086	-	-	12,086
Office furniture	29,282	1,425	-	30,707
Total accumulated depreciation	289,689	20,048		309,737
Leasehold improvements and equipment, net	\$ 43,208	\$ (20,048) \$	- :	\$ 23,160

#### NOTE 3 LEASEHOLD IMPROVEMENTS AND EQUIPMENT (CONTINUED)

Depreciation expense included in indirect expenses for the year ended June 30, 2011 amounted to \$20,048.

#### NOTE 4 RECEIVABLES

Receivables of the component unit as of June 30, 2011, as shown in the government-wide financial statements, in the aggregate, including retention, are as follows:

Receivables	 Amount
Grants	\$ 4,032,710
Unbilled	7,617,163
Retention	4,960,642
Interest	16,430
Other	120,656
	\$ 16,747,601

#### NOTE 5 SHORT-TERM NOTES PAYABLE (COMMERCIAL PAPER)

In the Spring of 2001 the SGVCOG entered into an agreement to borrow up to \$100,000,000 in short-term debt guaranteed by a letter of credit and collateralized by the pledge of grant revenues. The securities issue is tax exempt. Notes outstanding at June 30, 2011, amounted to \$27,350,000. Interest rates vary according to market conditions and have ranged from 0.38% and 0.24% in FY 2011. Proceeds of the borrowings have been used to pay for construction activities and also to provide a revenue source on the differential between interest earned and interest paid. The Commercial Paper is currently guaranteed by Bayern LB.

#### NOTE 6 GRANT ACCOUNTING

In the year ended June 30, 2011, ACE Construction Authority was the recipient, primarily from the Federal Department of Transportation through the California Department of Transportation (Caltrans), of cost reimbursement type grants. There were also California transportation programs paid through Caltrans. Local share was received from Metro. All of these grants are expenditure driven; funds must be expended before reimbursement is received. Certain amounts have been held back by the grantor agency pending completion of certain phases of contracted work and some costs incurred are subject to disallowance.

#### NOTE 6 GRANT ACCOUNTING (CONTINUED)

Receivable amounts at June 30, 2011, are shown net of disallowed costs. Caltrans approved, under Office of Management and Budget (OMB) Circular A-87, an indirect overhead allocation formula of 397.1% of total direct salaries and fringe benefit costs. Indirect costs incurred in fiscal year ended June 30, 2011 were \$3,608,604 and previously deferred indirect expense was increased by \$298,293.

#### NOTE 7 DUE TO GOVERNMENT AGENCY

The California Department of Transportation Audits and Investigation (A& I) audited the costs claimed by COG totaling \$245,130 for work performed under Agreement 74A0238 (Agreement) with California Department of Transportation (Caltrans). The Agreement period was March 1, 2006 through March 31, 2008. Based on the results of the audit, A & I determined that the COG owed \$89,262 of reimbursed costs not adequately supported and not in compliance with the Agreement provisions, and the State and federal regulations.

On December 12, 2011, Caltrans issued a letter to the COG reducing the liability from \$89,262 to \$42,687, provided COG implement certain action plans.

Of the total \$42,687 due to Caltrans, \$5,751 will be collected from the City of Irwindale.

#### NOTE 8 ADMINISTRATIVE EXPENSES

The following were the administrative expenses of the primary government for the year ended June 30, 2011:

Consultant fee	\$	124,949
Insurance		4,662
Legal fees		60,070
Accounting and audit fees		48,387
Stipends		11,500
Dues and subscriptions		514
Meetings		29,350
Committee support		19,328
Printing/publications		5,803
Annual evaluation		3,930
Information technology		669
Unreimbursable grant expenses		1,732
Disallowed costs, net (see Note 7)		36,936
Miscellaneous		1,458
	Total \$	349,288

#### NOTE 9 RELATED PARTY TRANSACTION

The COG has an agreement with Arroyo Associates, Inc. (AAI) to conduct COG's dayto-day administration, management and operating activities. As part of the Agreement, the President of AAI assumes the role of the Executive Director for COG.

For the fiscal year ended June 30, 2011, the total payments to AAI were \$556,443, in accordance with the contract.

#### NOTE 10 EMPLOYEE BENEFIT PLAN

#### **Defined Benefit Pension Plan**

Effective June 17, 2002 contributions and earnings of continuing employees of the ACE Construction Authority previously contributed to CalPars, were transferred to CalPERS.

CalPERS is an agent, multiple employer defined benefit pension plan that acts as a common investment and administrative agent for participating public entities within the State of California; State statutes within the Public Employees Retirement Law establish menus of benefit provisions as well as other requirements. CalPERS issues separate comprehensive annual financial reports. Copies of the CalPERS' annual financial report may be obtained from CalPERS Executive Office - 400 P Street, Sacramento, CA 95814. Since the plan had less than 100 active members and at least one valuation since June 30, 2003, CalPERS requires the Authority's Plan to participate in a risk pool. Mandated pooling was effective with the June 20, 2003 valuation.

#### **Funding Policy**

Active plan members as defined by the above statutes are required to contribute 7% of their annual covered salary. The Authority has elected to contribute this amount to CaIPERS on behalf of eligible employees. The authority is also required to contribute the actuarially determined remaining amounts necessary to fund the benefits for its members. The actuarial methods and assumptions used are those adopted by CaIPERS Board of Administration. The required employer contribution rate to CaIPERS for the year ended June 30, 2011 is 8.475%. The contribution requirements of the plan members are established by State statute and the employer contribution rate is established and may be amended by CaIPERS.

#### Annual Pension Cost (APC)

For fiscal year 2011, the Authority's annual pension cost and actual contribution was \$331,340. For the year ended June 30, 2011, the actuarial funding method used by the CalPERS is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a matter that produces level annual cost as the percentage of pay in each year from the age of hire (entry age) to the assumed retirement age.

#### NOTE 10 EMPLOYEE BENEFIT PLAN (CONTINUED)

The actuarial assumptions included (a) 2% at 55 as the benefit formula; (b) 7.75% investment rate of return compounded annually (net of expenses); (c) projected payroll growth rate of 3.25% and inflation of 3.0% compounded annually; and (d) 2% cost-of-living adjustment.

The actuarial funding process calculates a regular contribution schedule of employee contributions and employer contributions (normal costs) which are designed to accumulate with interest to equal the total present value of benefits by the time every member has left employment. As of each June 30, the actuary calculated the desirable level of plan assets as of that point in time by subtracting the present value of scheduled future employee contributions and future employer normal costs from the total present value of benefits.

#### Three-Year Trend Information for CalPERS

			APC	
_	Year	 (APC)	Contributed	 Obligation
	6/30/2009	\$ 207,868	100%	\$ -
	6/30/2010	353,248	100%	-
	6/30/2011	331,340	100%	-

#### **Postemployment benefits**

The ACE Construction Authority did not incur any other liabilities during fiscal year 2011 related to postemployment benefits.

#### **Deferred compensation plan**

The Authority has entered into a salary reduction deferred compensation plan for its employees. Securities held by the plan are valued at market. The plan allows employees to defer a portion of their current income from state and federal taxation. Employees may withdraw their participation at any time by giving written notice at least a week in advance prior to the effective date of the withdrawal. At June 30, 2011, plan assets totaling \$1,162,063 were held by independent trustees and, as such, are not reflected in the accompanying basic financial statements.

Balance at June 30, 2010	\$	806,716
Add employee contribution		160,881
Add net realized and unrealized appreciation		
in fair value of investments		196,968
Less distributions		(2,500)
Less fees charged	-	(2)
Balance at June 30, 2011	\$	1,162,063

#### NOTE 10 EMPLOYEE BENEFIT PLAN (CONTINUED)

#### **Deferred compensation plan (continued)**

All amounts of compensation deferred under the plans are solely the property and rights of each beneficiary (pursuant to legislative changes effective 1998 to the Internal Revenue Code Section 457, this includes all property and rights purchased and income attributable to these amounts until paid or made available to the employee or other beneficiary).

#### NOTE 11 COMMITMENTS AND CONTINGENCIES

#### Primary government:

The COG is currently a party in a legal proceeding. After consultation with legal counsel, management estimates that the matter will be resolved without material effect on the COG's financial position.

#### Component unit:

As mentioned in Note 6, the Authority receives reimbursement type grants from Federal, State and local sources. Certain expenditures are not allowable and not subject to reimbursement. Also, there may be disallowed costs. Management's experience in this regard indicates disallowances, if any, will not be material.

In June 2009, ACE Construction Authority Board approved suspension of the Integrated Rail Roadway System (IRRIS), a traffic signal system demonstration project. A total of \$6.4 million has been spent on the project since inception. The ACE Construction Authority staff has received a project close out from Caltrans. Management believes that no funds will be returned as a result of the suspension.

Earnings from arbitrage may be subject to rebate under certain provisions of the Internal Revenue Service Code unless certain specific conditions are met. Management is committed to meeting those conditions.

In the ordinary course of its operations, ACE Construction Authority is the subject of claims and litigations from outside parties. In the opinion of management, there is no pending litigation or unasserted claims, the outcome of which would materially affect ACE Construction Authority's financial position.

The ACE Construction Authority rents its office from Metropolitan Life Insurance Company subject to a lease expiring April 30, 2016. Monthly rent and a pro-rata share of facility maintenance and utilities are as follow:

Period from/to		Monthly Rent		Annual Amount
May 1, 2011 to April 30, 2012	\$	17,448	\$	209,376
May 1, 2012 to April 30, 2013		17,972		215,664
May 1, 2013 to April 30, 2014		18,511		222,132
May 1, 2014 to April 30, 2015		19,066		228,792
May 1, 2015 to April 30, 2016		19,638		235,656
Tota	l lease	commitment	s \$	1,111,620
			_	

#### NOTE 11 COMMITMENTS AND CONTINGENCIES (CONTINUED)

Escrow Agreements for Contract Retention - The Escrow Agent, Contractor or Owner may terminate this Escrow Agreement, with or without cause, by providing 30 days prior written notice to the other parties. In the event of termination of this Escrow Agreement, all the funds on deposit shall be paid to the Owner and any accrued interest less escrow fees shall be paid to the Contractor. The Authority has recognized as expenditure retention payments totaling \$3,763,151. Funds are deposited in several escrow accounts until release to the Contractor is authorized.

#### NOTE 12 ACCOUNTING FOR CONSTRUCTION IN PROGRESS AND EVENTUAL DISPOSAL OF PROJECTS

Except for minor acquisitions that may be sold by the ACE Construction Authority when no longer needed, all of the construction projects when completed, will be deeded to the Union Pacific Railroad and the cities in which they are located at no cost to the acquirer. At June 30, 2011, \$574,432,135 of costs was accumulated on projects in process and \$390,432,480 had been transferred to the railroad and impacted cities.

Under the government funds and modified accrual basis of accounting \$44,189,806 in FY 2011 project expenditures would be reported as expenditures in the year incurred. On the government-wide financial statements conforming to GASB 34 reporting on these transactions presents a challenge. Accumulating those costs as construction in progress (i.e., treated as a cash flow expenditure and not a current year expense) would substantially overstate income while reporting the disposal and expensing the accumulated costs would distort the cost of operations. In both cases, net assets would fluctuate wildly, depending on the timing of construction and disposal.

To alleviate this situation, management has elected to record a liability (same amount as the construction in progress) to UPRR and governments likely to be the eventual owner of the improvements/grade separations. This approach will minimize the effects of both on the acquisition of property for construction and the accumulation of construction costs and their eventual disposal.

#### NOTE 13 ACCOUNTING FOR ARBITRAGE

In February of 2011 ACE received an Information Data Request from the Internal Revenue Service ("IRS") related to arbitrage rebate compliance on ACE Construction Authority's 2005 Series commercial paper draw. Based upon this request, it was discovered that the Series 2005 draw, and the previous three draws, had not met spending exceptions that would avoid the payment of any excess profits made on investing the tax-exempt commercial paper draws in taxable investments prior to these amounts being spent.

ACE Construction Authority contracted with First Southwest Company to perform rebate calculations on all of its outstanding commercial paper draws. Based upon these calculations, as of June 30, 2011, ACE Construction Authority has made payments to the IRS in the amount of \$2,465,791, consisting of \$2,214,731 of rebate liability, and \$251,060 in late interest for required filings prior to June 30, 2011.

As of June 30, 2011, the estimated liability payment on three outstanding commercial paper draws is \$1,836,253. Of this total, \$598,286 was paid on July 5, 2011, \$717,422 was paid on July 29, 2011, and \$412,716 was paid on October 27, 2011, leaving an estimated liability of \$107,829 as of December 5, 2011.

On October 28, 2011, ACE Construction Authority received a notice from the IRS which states that the IRS made a determination to close the examination of ACE Construction Authority's 2005 Series commercial paper draw with no change to the position that interest received by the beneficial owners of the Bonds is excludable from the gross income under section 103 of the Internal Revenue Code. However, the IRS' examination revealed that rebate payments were required and that ACE Construction Authority had no system to monitor the compliance with arbitrage and yield restriction regulations. Future noncompliance could result in penalties and/or the taxability of interest received by the beneficial owners of the Bonds. The accrued liability as of June 30, 2011 covers the rebate payments required and ACE Construction Authority is committed to having a system to monitor the compliance with arbitrage and yield restriction regulations.

#### NOTE 14 SUBSEQUENT EVENTS

COG has evaluated events subsequent to June 30, 2011 to assess the need for potential recognition or disclosure in the financial statements. Such events were evaluated through January 17, 2012, the date the financial statements were available to be issued. Based upon this evaluation, it was determined that no other subsequent events occurred that require recognition or additional disclosure in the financial statements.

## San Gabriel Valley Council of Governments Statement of Revenues, Expenditures, and Changes in Fund Balances – Componentiont Budget to Actual

Year ended June 30, 2011

	Budgeted Amounts			Variance
		Amended	Actual	Positive
	Original	Final	Amounts	(Negative)
Revenues				
Reimbursements				
Federal grants \$	, ,	\$ 11,064,657 \$	4,985,702 \$	(6,078,955)
State grants	26,808,000	20,273,482	-	(20,273,482)
Local grants	67,941,000	51,380,209	39,196,054	(12,184,155)
Other revenue	1,333,000		332	332
Total revenues	110,713,000	82,718,348	44,182,088	(38,536,260)
Operating expenditures				
Construction				
Design	7,698,000	7,389,951	7,375,691	14,260
Right-of-Way acquisition	43,677,000	49,437,809	21,472,099	27,965,710
Construction management	1,198,000	1,339,913	1,060,283	279,630
Construction	51,726,000	19,368,157	9,665,665	9,702,492
Betterments	970,000	1,336,518	1,305,757	30,761
Total construction	105,269,000	78,872,348	40,879,495	37,992,853
Indirect				
Personnel Salaries and wages	1,625,000	1,654,000	1,571,525	82,475
Fringe benefits	467.000	477,000	480,984	(3,984)
Employee related expenses	35,000	33,000	36,976	(3,984)
Professional services	33,000	55,000	30,970	(3,970)
Auditing/accounting	35,000	35,000	41,314	(6,314)
Disadvantaged business/labor compliance	161,000	161,000	90,681	70,319
Legal	55,000	55,000	63,022	(8,022)
Other	-	-	225,426	(225,426)
Program management	923,000	952,000	654,870	297,130
Brokerage	65,000	65,000	59,346	5,654
Insurance	166,000	131,000	98,624	32,376
Equipment expense	48,000	37,000	40,642	(3,642)
Office rental expense	203,000	203,000	187,356	15,644
Office operations	38,000	38,000	57,838	(19,838)
Other	5,000	5,000	-	5,000
Deferred indirect expense			(298,293)	298,293
Total indirect	3,826,000	3,846,000	3,310,311	535,689
Total operating expenditures	109,095,000	82,718,348	44,189,806	38,528,542
Excess (deficiency) of revenues over expenditures	1,618,000	-	(7,718)	(7,718)
Other financing sources (uses)				
Investment revenue	638,000	638,000	543,560	(94,440)
Interest and related expenses	(562,000)	(562,000)	(4,907,655)	(4,345,655)
Non-project reimburseable funds	285,000	285,000	312,798	27,798
Non-project reimburseable expense	(285,000)	(285,000)	(312,798)	(27,798)
Rental revenue	-	-	162,741	162,741
Rental expense			(92,339)	(92,339)
Net other financing sources (uses)	76,000	76,000	(4,293,693)	(4,369,693)
Change in fund balance	1,694,000	76,000	(4,301,411)	(4,377,411)
Fund holence at heating is a funda	10 100 100	10 100 100	10 100 100	
Fund balance at beginning of year	10,199,199	<u>10,199,199</u>	<u>10,199,199</u>	-
Fund balance at end of year \$	11,893,199 \$	5 10,275,199 \$	5,897,788 \$	(4,377,411)

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#### Report of Independent Auditors on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Basic Financial Statements Performed in Accordance with *Government Auditing Standards*

#### Board of Directors San Gabriel Valley Council of Governments

We have audited the financial statements of San Gabriel Valley Council of Governments (the "COG") as of and for the year ended June 30, 2011, which collectively comprise the basic financial statements of the COG and have issued our report thereon dated January 17, 2012. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in the *Government Auditing Standards*, issued by the Comptroller General of the United States.

#### Internal Control Over Financial Reporting

Management of COG is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered the COG's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the COG's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the COG's internal control over financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.



#### Compliance and Other Matters

As part of obtaining reasonable assurance about whether the COG's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

This report is intended solely for the information and use of the governing board, management, federal awarding agencies, and pass-through entities and is not intended to be and should not be used by anyone other than these specified parties.

Los Angeles, California January 17, 2012



DATE:	February 8, 2012	,
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- TO: City Managers' Steering Committee
- FROM: Nicholas T. Conway, Executive Director
- **RE:** Caltrans Audit Appeal

#### **Recommended Action**

Recommend to the Governing Board authorizing the Executive Director to issue payment to Caltrans (\$42,688) for disallowed prior grant reimbursement expenditures:

- ✓ \$36,937 will be allocated from the COG General Fund unallocated balance. These funds were previously paid to the COG by Caltrans for administrative expenses related to the planning grant. While these costs were incurred by Arroyo, the monies were never billed or expended by the COG. Thus, the funds remain available in unallocated fund balance and available for return to Caltrans without any negative impact to the COG.
- ✓ \$5,751 will be paid to the COG by the City of Irwindale for discrepancies in the City's Consultant billings. The City recognizes this internal error and has agreed to pay the requested amount needed to correct that mistake.

#### **Background**

We have concluded our negotiations with Caltrans regarding the appeal of their final report related to Caltrans Audit #1530-0009. You will recall in September 2009, Caltrans conducted an audit of a Caltrans Planning Grant that was awarded to the COG in March 2006. All planning work related to site location for transit oriented development in three member agencies: Duarte, Irwindale and LaVerne. All work was completed on time and on budget. The grant was administered and approved at every step by Caltrans District 7 staff. Caltrans authorized the issuance of final payment and approval to close out the grant in June 2008.

In April 3, 2011, eighteen months after completing their field work, Caltrans Audit and Investigating Unit issued a draft audit report to the then COG President that had a number of findings relating to alleged violations of Federal and State rules and regulations. As a result, Caltrans demanded the return of \$245,130, which was the full amount of the grant in question.

In May 2011, the COG engaged Lopez & Company, LLP, the Agency's former auditors during the grant period. Lopez & Company, LLP currently serve as the compliance auditor for the Inspector General's offices at several Federal government agencies. The firm was engaged to review Caltrans' draft audit report and help prepare the COG's response, where appropriate. In January 2012, the COG and Lopez & Company, LLP submitted a 403 page response to Caltrans draft audit citing numerous errors in citations of Federal statutes and other policies and procedures used in administering the grant. In addition, Lopez & Company noted the extensive partnership and approval process used by the COG and Caltrans District 7 executives and contract management staff administering the very grant that Caltrans A&I found to be so deficient in its administration.

In September 2011, Caltrans issued their final audit report and reduced their demand for repayment to \$89,262. The repayment focused on three outstanding areas:

- \$5,751 City of Irwindale for discrepancies between consultant invoices and supporting documentation.
- ▶ \$46, 575-City of La Verne consultant contract illegally procured under this grant.
- ▶ \$36,937 paid to the COG for administrative expenses permitted under the contract.

In September 2011, the COG Board directed staff to appeal Caltrans' final audit recommendations with respect to one area - the City of LaVerne contract. After further discussion and review, Caltrans has decided to waive repayment of that previous demand with regard to LaVerne provided all other corrective actions regarding the perceived Conflict of Interest and grant administration policies and procedures are implemented by June 2012.

The COG's organizational study initiated by the Governing Board this last summer will address the over-arching and fundamental issue of this audit relating to the continued "appearance of a conflict of interest" and the COG's compliance with Federal CFR 49. In addition, staff has already prepared the desired grant and financial management policies and procedures that are intended to be in place by June 2012. That had been done prior to the audit, but the auditor deemed to be outside the scope and timeframe of the audit in question and therefore was not eligible for review. Implementation of those recommendations is now dependent upon the organization's study recommendations.

Finally, during the course of this discussion with Caltrans, I became aware that a member of the COG Governing Board was in contact with Caltrans Executive staff and attempted to undermine my efforts to achieve the Governing Board's desired outcome. That unanimous direction was provided to General Counsel and Executive Director by the Governing Board and was judged to be in the best interest of both the COG and the City of LaVerne. Fortunately, Caltrans executives supported my efforts to resolve this matter and their belief that it was in the best interest of both Caltrans and the COG. I am appreciative for their support and trust.



## San Gabriel Valley Council of Governments

1000 S. Fremont Ave., Unit 42, Bldg. A6, Suite 6425, Alhambra, CA 91803 Phone: (626) 457-1800 FAX: (626) 564-1116 E-Mail SGV@sgvcog.org

Date:	February 1, 2012
То:	City Managers' Steering Committee
From:	Nicholas T. Conway, Executive Director
Re:	Strategic Plan Update January – July 2012

#### **Recommended Action:**

Adopt updated SGVCOG Strategic Plan Goals and Objectives.

#### **Background:**

On Saturday, January 28th, the COG hosted its eleventh semi-annual strategic planning session at La Casita del Arroyo in Pasadena. Approximately 26 attendees representing 17 member agencies were represented as follows:

- Alhambra
- Arcadia
- Azusa
- Covina
- Duarte
- Glendora
- Industry
- Irwindale
- La Canada Flintridge

- San Dimas
- San Marino

Pomona

- Sierra Madre
- South El Monte
- South Pasadena
- Temple City
- Walnut
- LA County Supervisorial District 5

• Monrovia

Additionally, there was participation from ACE and the San Gabriel Valley Housing and Homeless Services Coordinating Council.

The COG's strategic planning process began by giving us the opportunity to reflect on our many accomplishments. In total, participants identified 44 major achievements that had occurred over the past three years, and specifically the last six months. Highlights of these accomplishments include the following:

- ✓ Successfully supported the appointment of two San Gabriel Valley residents on the 14 member California Statewide Redistricting Committee
- ✓ Secured California Transportation Commission (CTC) allocation of \$336 million for the ACE project

- ✓ Completed the first phase of MTA's Pilot Study for Congestion Mitigation Fee Feasibility project
- ✓ Negotiated a settlement with Caltrans regarding to their most recent audit
- ✓ Successfully supported State legislation to restrict truck movement on State Route 2
- ✓ Launched Energy Upgrade California in collaboration with Los Angeles County
- ✓ Secured representation from the San Gabriel Valley on the SCAG's Regional Housing Allocation Committee
- ✓ Addressed environmental issues through innovative partnerships and forums with both public and private entities focused on energy, stormwater and solid waste management

See Exhibit 1 for a full list of accomplishments identified at the meeting.

Participants then had the opportunity to review our Agency's mission statement, vision statement and core values. The SGVCOG's mission statement, which was revisited and revised in 2006, is as follows:

"The San Gabriel Valley Council of Governments is a unified voice to maximize resources and advocate for regional and member interests to improve the quality of life in the San Gabriel Valley."

In 2007, the SGVCOG developed their vision statement and is intended to provide guidance in the development of long-term goals. The vision statement is as follows:

"By 2012, the San Gabriel Valley Council of Governments will be recognized as the leader in advocating and achieving sustainable solutions for transportation, housing, economic growth and the environment."

The SGVCOG further expanded upon its mission statement in 2007 by developing the following set of Core Values:

The San Gabriel Valley Council of Governments values:

- *Reflecting the diversity of our member communities*
- Accountability
- Mutual respect
- Integrity
- Unity of common goals and objectives
- Focus on the greater good
- Collaboration
- Fiscal responsibility

The key focus of these Strategic Planning Sessions is to have attendees develop a new set of long-term goals that are to be achieved over the next three years (2012-2015). This revision would make the long-term goals more reflective of the SGVCOG's existing committee structure. If approved by the Governing Board, the revised long-term goals would be as follows:

✓ Take the leading role in redefining and revitalizing economic development, affordable housing, and homeless services

- ✓ Advocate for and secure funding for prioritized COG transportation projects
- ✓ Advocate for and secure funding for prioritized Energy, Environmental, and Natural Resources (EENR) projects.
- ✓ Strengthen internal and external relationships and communication

Finally, attendees developed new six-month objectives to achieve these new goals. These goals and objectives, which are included in the attached matrix (Exhibit 2), will be discussed and presented for adoption at the February Governing Board. Once the revised strategic plan is adopted by the Governing Board, this matrix will be updated monthly to indicate progress in achieving the identified objectives.

As always, the Strategic Planning Session was extremely useful and provided an excellent opportunity for all of the SGVCOG's stakeholders to come together to reflect on our accomplishments and develop a plan of action for the coming months.

Exhibit 1

#### WHAT ARE THE STRENGTHS AND ACCOMPLISHMENTS OF THE SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS IN THE PAST THREE YEARS AS WELL AS SINCE THE JULY 2011 STRATEGIC PLANNING RETREAT?

Brainstormed Perceptions

- Saving Mary Ann Lutz's Water staff person
- Received an allocation of \$336 million from the CTC for the ACE Project
- Our partnership with Edison on energy has been very successful
- Secured \$1.9 million in targeted housing homeless services funds
- Energy, Environment and Natural Resources (EENR) Committee has developed white papers for water, open space, energy and waste management
- Entered EIR process for Gold Line East Side extension
- Ensured communication with cities on high speed rail
- Conducted Solid Waste Forum
- Did an Open Space Forum
- Continued strong ties with federal legislators
- Continued corridor planning efforts with Rosemead, Valley Boulevard, Arrow Highway and Ramona Badillo
- Received a \$4.7 million grant from SCE (Edison) for an energy upgrade for greenhouse gas inventory
- Initiated first Metro Link express train in the San Gabriel Valley
- Hosted a public forum with Edison regarding windstorm management
- Hosted a Gang Summit with LA County officers and then-Attorney General Jerry Brown
- Initiated discussion with local colleges to bring back Small Business Development Centers (SBDC) to the San Gabriel Valley
- Organized our cities to participate in redistricting
- COG Board adoption of four white papers concerning COG-ACE relationship
- Secured commitment from MTA to conduct first strategic plan for Metro Link improvements in the San Gabriel Valley
- Restarted recycling centers for batteries with the Stewardship Council
- Introduced the Rivers and Mountains Conservancy's new CEO to the San Gabriel Valley
- Successfully supported State legislation to restrict truck movement on State Route 2
- Made presentations to the Board on LA County's initiative for stormwater runoff
- Through our efforts, obtained safeguards for our cities regarding the high speed rail
- ACE moved two projects into design (i.e., grade separations)
- Supported federal legislation for protection of our forests
- Initiated planning for Phase II of the grade separation projects
- ACE has begun and will be making quarterly presentations to the COG on the grade separation projects
- Secured representation from the San Gabriel Valley on the Statewide Redistricting Committee
- Negotiating a settlement with CalTrans over their audit
- Launched Energy Upgrade Program with the County
- We continue to receive unanimous support from our member agencies when issues require additional financial support
- Completion of the first phase of the Congestion Mitigation Fee Project with the County
- Congestion Mitigation Fee Project was successful because of the hard work of the COG staff
- Secured funding for the Gold Line Foothill extension
- We are in the EIR phase of the 710 gap completion
- Work underway on Highway 10 express lanes
- Coordinating Council for Homeless Services
- Secured the positions with the Gold Line Board
- We did a Water Working Forum
- Organized the cities to work together for a MS4 permit
- Secured representation from the SGV on the SCAG's Regional Housing Allocation Committee
- COG is the organization that keeps cities informed and aware of what cities need to do
- We have had a quorum at all SGVCOG scheduled Board meetings

Exhibit 2

### SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS 🔅 SIX-MONTH STRATEGIC OBJECTIVES

January 28, 2012 - July 15, 2012

## THREE-YEAR GOAL: Take the leading role in redefining and revitalizing economic development, affordable housing and homeless services

WHEN	WHO	WHAT	STATUS COM			COMMENTS
			DONE	ON TARGET	REVISED	
1. Beginning at the February 17, 2012 Board meeting and at least monthly thereafter	Housing, Community and Economic Development (HCED) Committee	Report to the Governing Board on legislation and court cases regarding redevelopment and economic development.				
2. By February 29, 2012	Executive Director	Plan and hold a forum of COG members to share information and develop at least three strategies related to redefinition and revitalization of economic development and affordable housing in the San Gabriel Valley.				
3. By March 15, 2012	Governing Board (Joe Gonzales and Gene Murabito – co-leads)	Get each SGVCOG member jurisdiction to contribute at least \$2500 to keep viable the Housing Homeless Coordinating Council and services it provides to the homeless.				
4. By July 15, 2012	HCED Committee (Gene Murabito and Gino Sund-co-leads), in partnership with local educational institutions	Develop and present to the Governing Board Regional Small Business Development Centers in the San Gabriel Valley to provide additional services for San Gabriel Valley businesses.				

Exhibit 2

WHEN	WHO	WHAT		STATU	s	COMMENTS
			DONE	ON TARGET	REVISED	
1. By April 15, 2012	Executive Director and the Transportation Committee Chair	Recommend to the Governing Board for action an updated COG Transportation Priority List and create a matrix listing key milestones or status and timelines.				
2. By May 15, 2012	Transportation Committee (John Fasana-lead)	Develop a white paper outlining policy principles related to Transportation Priority List and present it to the Governing Board for action.				
3. By July 15, 2012	Transportation Committee Chair, working with the incoming Chair of the MTA (Supervisor Antonovich) and County/State/ Federal representatives	Coordinate and convene a Transportation Summit.				

Exhibit 2

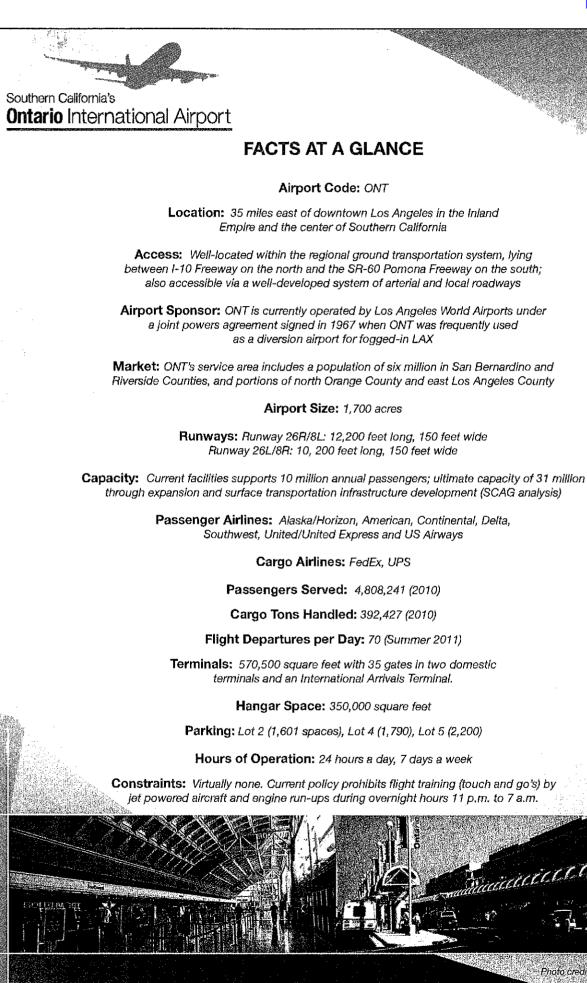
# THREE-YEAR GOAL: Advocate for and secure funding for prioritized energy, environmental and natural resources projects

	WHO	WHAT		STATU	S	COMMENTS
WHEN			DONE	ON	REVISED	
	Γ			TARGET		
1. Beginning in February 2012 and at least monthly thereafter	Water Resources Working Group (Mary Ann Lutz-lead)	Provide continued support and updates to the Governing Board and member agencies on the National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4NPDES) permit.				
2. Beginning in February 2012 and at least monthly thereafter	Executive Director	Oversee and provide updates to the Governing Board on grants (e.g., SCE, CEESP and the San Gabriel Valley Energy Wise Partnership).				
3. By March 31, 2012 and quarterly thereafter	Open Space Working Group (Denis Bertone- lead)	Update the Governing Board on the ongoing advocacy efforts for San Gabriel Valley's fair share in regard to environmental funding initiatives.				
4. By March 31, 2012 and quarterly thereafter	Executive Director and Energy, Environmental and Natural Resources (EENR) Chair Sam Pedioza	Provide updates to the Governing Board on the EENR Committee's monitoring of implementation of SB375, AB32 and AB341.				
5. By June 30, 2012	Michael Cacciotti	Report to the Governing Board on the resources and funding available to assist cities in coordinating alternative fuel vehicle readiness.				

С

Exhibit 2

WHEN	WHO	WHAT		STATU	S	COMMENTS
			DONE	ON TARGET	REVISED	
1. Within 72 hours following a Governing Board meeting	Executive Director	Provide a summary of talking points to all Board members about the SGVCOG Board meeting.				
2. At the February 16, 2012 Board meeting	President Angel Carrillo (lead), Vice President Barbara Messina and the Executive Director	Call for the development of an ad hoc Legislative Committee of COG Board Members to meet on a regular basis with federal and State legislative representatives.				
3. By March 1, 2012	COG Officers (Angel Carrillo and Barbara Messina-co-leads), with the Executive Director	Develop and present to the Governing Board for action a Communication Plan to communicate externally what the COG does.				
4. By May 1, 2012	Executive Committee (Barbara Messina- lead), working with the Executive Director	Recommend to the Governing Board for action a SGVCOG Code of Conduct for the members and staff, including review of the COG Core Values.				
5. At or before the June 21, 2012 Board meeting	Executive Committee (Angel Carrillo-lead) and full Governing Board	Take action on the fifth white paper on the COG-ACE relationship and the City Gate Organization's Audit Report.				



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Photo credits. City of Ontario

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#### **RESOLUTION NUMBER**

DATE OF FINAL PASSAGE

#### A RESOLUTION OF THE CITY COUNCIL IN SUPPORT OF THE TRANSFER OF ONTARIO INTERNATIONAL AIRPORT (ONT) TO LOCAL CONTROL.

WHEREAS, local control of airports in Southern California has been shown to be conducive to development of successful regional airports because the airport sponsor has a vested interest in the airport making the greatest contribution to its economy.

WHEREAS, local control of ONT will help ensure that all of Southern California will have sufficient airport capacity to meet the long-term demand for air travel in the region.

WHEREAS, on January 7, 2011, the Los Angeles Economic Development Corporation called on Los Angeles World Airports (LAWA) to shift control of ONT – as well as the responsibility and risk that comes with that control – to another entity so LAWA can focus more of its energy on modernizing Los Angeles International-Airport

WHEREAS, on November 29, 2010, the Alliance for a Regional Solution to Airport Congestion (ARSAC) urged the Los Angeles Board of Airport Commissioners to transfer ONT airport management decisions to the local Ontario area in pursuit of a regional airport system that can better address ONT patronage decline and regional service demands.

WHEREAS, on September 2, 2010, the Southern California Association of Governments (SCAG) Regional Council enacted a resolution recommending the transfer of ONT to local control as being in the best interests of Los Angeles and the Southern California region. SCAG further stated that under local control, ONT can recover from the economic downturn of the past several years while positioning itself for long-term growth, consistent with the reorganization of air traffic contemplated in SCAG's Regional Transportation Plan.

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WHEREAS, after transfer to local control, ONT can operate on the same basis as airports in Burbank, Orange County, Long Beach and Palm Springs - as low-cost secondary airports under local control.

THEREFORE, BE IT RESOLVED, the City Council hereby supports the transfer of ONT to local control in furtherance of airport regionalization and the region's economy.

BE IT FURTHER RESOLVED, the City Council requests the cities of Los Angeles and Ontario commit the necessary resources and effort to affect the transfer of ONT to local control at the earliest possible date.

BE IT FURTHER RESOLVED, the City Clerk shall communicate this action of the City Council to the Mayors of Los Angeles and Ontario, the Acting Administrator of the Federal Aviation Administration, and state and federal elected representatives.

APPROVED BY:

DATE:

Please transmit the approved resolution to the following parties:

Mayor Antonio Villaraigosa City of Los Angeles City Hall 200 North Spring Street, Room 300 Los Angeles, CA 90012

Mayor Paul S. Leon City of Ontario City Hall 415 East "B" Street Ontario, CA 91764

Michael P. Huerta Acting Administrator Federal Aviation Administration 800 Independence Avenue, SW Washington, DC 20591

## Ontario International Airport – A Recovery Plan

September 2010

City of Ontario, California

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### 1. Introduction

The City of Ontario ("Ontario") presents this White Paper to support its position that the success of Ontario International Airport ("ONT") requires that local control be restored. After extensive research, it is Ontario's belief that the most effective and expeditious means to accomplish this objective is through a mutually agreed upon modification of the existing joint powers agreement between Ontario and the City of Los Angeles.

This document also incorporates Ontario's comments on the Jacobs Consultancy report – "Alternatives for Management and Operation of LA/Ontario International Airport" presented at the Los Angeles Board of Airport Commissioners ("BOAC") meeting August 2, 2010. The LAWA/Jacobs report focused on ONT's high costs, but did not get to the heart of the other problems facing ONT: An inherent conflict of interest in Los Angeles controlling LAX and ONT, overstaffing, high labor costs, a 15 percent administrative fee levied by LAWA on ONT, and a reduced budgetary commitment to airport regionalization. Nor did it set forth options that are practical or that have a reasonable probability of succeeding. This White Paper seeks to fill this vacuum while providing a framework for ONT to make a greater contribution to airport regionalization.

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# 2. Historical Perspective

Even people in the aviation industry are often surprised to learn that ONT is operated by the City of Los Angeles' Department of Airports (also known as Los Angeles World Airports or LAWA). ONT is located 35 miles east of downtown Los Angeles in a different city and county from Los Angeles. An understanding of how this airport came to be controlled by Los Angeles is necessary to appreciate its current status as a secondary airport in the LA Basin and to understand its potential as an integral part of the Southern California regional airports system.

The airport traces its origin to 1923, making it one of the oldest in the nation and the state. This was five years before Mines Field began operations at the current location of LAX. Dirt runways were replaced with two concrete runways in 1942 to support the nation's war effort. By the mid-1950s, Lockheed, Douglas and Northrop had major aircraft facilities at ONT. During this era, commercial air service in Southern California was limited to Burbank Airport until 1946 and thereafter at Los Angeles Municipal Airport, later to be renamed Los Angeles International Airport.

With the dawning of the jet age in 1959, commercial air service became vastly more popular. Airlines began to expand their fleets. While LAX remained the principal airport serving Southern California, there were often times when it was shrouded in fog, requiring flights to divert to ONT. As many as 60 days a year, passengers and luggage were bussed between ONT and LAX.

Because much of the annual activity at ONT during the 1960s was accommodating diverted airplanes, the cities of Ontario and Los Angeles felt it would be in the best interests of the Southern California region if Los Angeles took responsibility for operating the airport. In addition, Los Angeles was expected to bring more air service to ONT, thereby attracting businesses and creating jobs. Discussions to this end began in the early-1960s, resulting in a "Contract between the City of Los Angeles and the City of Ontario for the Joint Exercise of Powers in Relation to Ontario International Airport" ("JPA"). As memorialized in the Agreement of 1967, the parties felt that "considerable benefit would result to ONT and LAX, to the two cities and to the users of air transportation into and out of Southern California" from the arrangement.

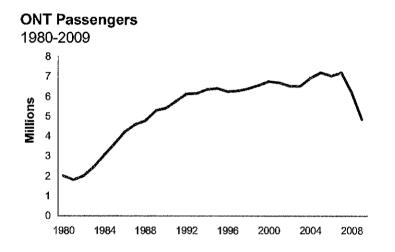
Section 9 of the JPA stated: "Los Angeles shall exercise its best efforts to attract and obtain additional regular scheduled airline service for ONT and shall immediately, under approval of this Agreement, apply to the Civil Aeronautics Board for change in the certificates of the scheduled carriers presently serving Los Angles to specify ONT as a joint-use airport or hyphenated point with LAX."

From the signing of the JPA in 1967 until deregulation of the airline industry in 1978, the two airports were treated the same by the Civil Aeronautics Board for the purposes of airline route authorities and the setting of airfares. Thus, an airline authorized to serve LAX could also serve ONT under the same route authority and with the same air fares. Air service soon began to take off and by 1971 the airport was serving more than 1 million passengers a year.

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The Los Angeles Department of Airports operated its three airports (LAX, ONT and Van Nuys Airport) as a single financial entity. This meant that all revenues from the three airports were deposited in a single airport account and all expenses were paid from that account. ONT generated sufficient revenues to cover its expenses and also to repay Los Angeles for its investments in ONT which from 1967 to 1985 totalled approximately \$4 million.

As shown on this chart, ONT passenger traffic continued to grow through the 80s and 90s as airline deregulation produced greater competition and lower fares. About a dozen LAX airlines also operated passenger flights at ONT to serve the rapidly growing Inland Empire.



By 1985, the airlines and LAWA determined additional facilities were needed to keep pace with the passenger growth rate. A Supplemental Agreement to the 1967 JPA was negotiated for the "Acquisition of Ontario International Airport by the City of Los Angeles." That Agreement acknowledged the prior \$4 million payment by Los Angeles (which was subsequently fully repaid by ONT) and cleared the way for LAWA to begin development of a Master Plan to meet the airport's long-term needs and provided future air service capacity for Southern California.

Section 14 of this Agreement stated "that both Los Angeles and Ontario recognize the continuing necessity for and hereby agree to cooperate with each other in carrying out the purposes and objectives of the Joint Powers Agreement which it is agreed shall remain in full force and effect."

As the planning continued into the early 1990s, a major dispute arose at LAX between the airlines and LAWA relating to LAWA's use of airport revenues and its desire to impose a "commercial compensatory" methodology for setting airline rates and charges at LAX. ONT was not involved in that dispute. Instead, it remained a stand-alone "residual" airport where the airlines' rates and charges were adjusted periodically to ensure the airport broke even and did not require any subsidy from LAWA. This occurred beginning in 1994.

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Airline rates and charges at ONT were extremely low through the 1990s, thanks to low overhead and lack of significant debt service payments. This was typical of secondary airports in the United States and the reason JetBlue Airways chose ONT as its first West Coast city in 2000. A second JetBlue flight was added in 2001 and plans announced for a third flight as part of a gradual buildup of its West Coast schedules.

As planning for the new ONT facilities turned to how to pay for them, the airlines and LAWA agreed to a plan using Passenger Facility Charges that would help keep operating costs as low as possible after the new facilities opened.

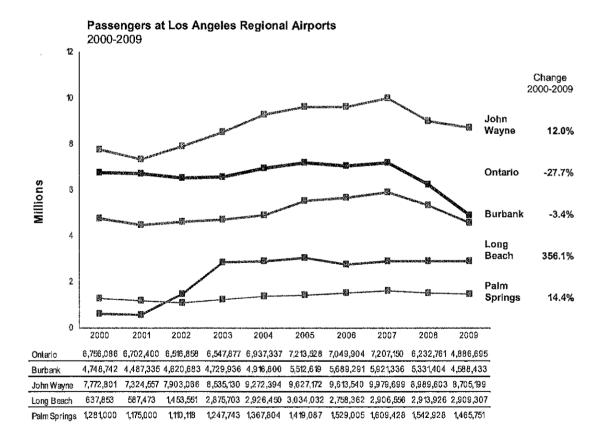
In the early 1990s, federal legislation created the ability for airports to charge a Passenger Facility Charge to be collected by the airlines in the ticketing process with funds held in trust by the airport sponsor for approved capital projects. At \$3 per enplaned passenger, LAX collected several hundred million dollars in PFCs over the course of several years. With only a limited number of LAX capital projects eligible for use of the PFC funds, the airlines serving ONT (that also served LAX) suggested using \$125 million of collected PFCs at LAX as a down payment on the new ONT facilities. Because the same airlines accounted for the vast majority of PFC collections at both ONT and LAX, it made sense to use some LAX PFC funds for the ONT terminal project. The international airlines at LAX who did not serve ONT also agreed to the plan after additional PFCs were allocated to LAX projects benefiting them. The FAA approved the specific use of PFCs and funds were transferred to the ONT terminal project. This permitted the project to go ahead with limited need for debt financing; as a result, ONT today enjoys one of the lowest debt service ratios among medium hub airports.

Nevertheless, while debt service costs were kept low, LAWA made a number of decisions that dramatically increased costs, including staffing the new facilities with City of Los Angeles employees, bringing in-house functions such as janitorial and grounds keeping that are frequently contracted out, and imposing a burdensome administrative charge. These decisions would rapidly lead to high personnel costs that would make it much more expensive for airlines to serve ONT.

# 3. Market Analysis

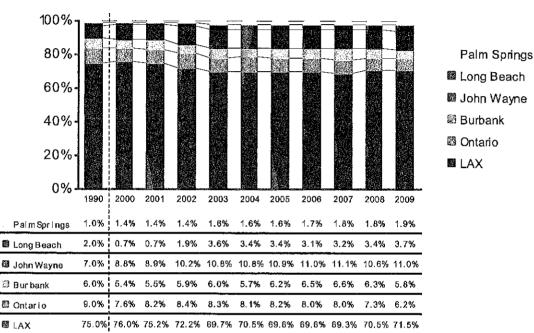
ONT is located in one of the fastest growing regions of the U.S., serving a population of nearly 5 million people in San Bernardino and Riverside Counties and portions of north Orange County and east Los Angeles County. For the broader region, ONT is generally considered the most promising solution for Southern California's future airport capacity needs because of its ability to accommodate a large increase in air service in a region where other airports have very limited capacity to grow.

After experiencing significant growth during the '80s and '90s, ONT entered 2000 on solid footing. As illustrated below, however, by 2009, ONT had nearly 28% fewer passengers than in 2000 - a dismal record in comparison with the other Los Angeles area airports.¹ The number of ONT passengers – which approached that of John Wayne in 2000 and 2001 – now amounts to only slightly more than half of John Wayne's. Burbank, which handled far fewer passengers than ONT in 2000, is now about the same size as ONT.



¹ Los Angeles area airports include LAX, Burbank, John Wayne, Long Beach, and Palm Springs. San Diego is not included as it serves a separate metropolitan area.

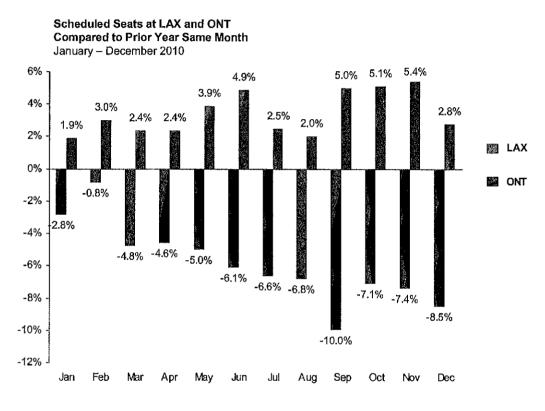
As ONT passengers have declined in absolute numbers, so has ONT's share of the Los Angeles region's air market. Despite LAWA's stated policy and commitment to promote regionalization – the greater use of regional airports other than LAX – LAX's share of passengers in the Los Angeles region has actually increased over the past seven years from 69.7% to 71.5%.



Passenger Share of Southern California Airports LAX, Ontario, Burbank, John Wayne, Long Beach, Palm Springs

Source: Los Angeles area airports

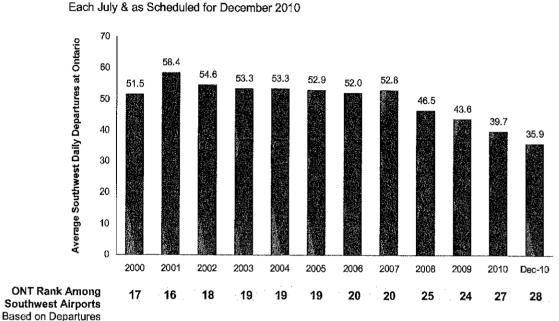
Published airline flight schedules for ONT for 2010 show that ONT continues to lose air service and will experience even deeper cuts during the  $2^{nd}$  half of the year. As ONT offers fewer flight options, it becomes less attractive to travelers who choose instead to fly from LAX and other area airports. This downward cycle becomes self-reinforcing and makes ONT increasingly vulnerable to further cuts. Meanwhile, as ONT continues to decline, LAX air service has grown each month in 2010 and will continue to do so for the remainder of the year.



Source: Official Airline Guide as of July 30, 2010

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ONT's largest airline, Southwest - which also serves LAX, Burbank, and John Wayne airports in the Los Angeles area - continues to cut service at ONT. As a result, ONT, which ranked as the 17th largest airport in Southwest's system in 2000, will have slipped 11 places to 28th as of this December.



Average Southwest Daily Departures at ONT

Source: Official Airline Guide as of July 30, 2010

Other changes since 2000:

- In 2000, ONT attracted its first non-stop service to Canada (Toronto) and Mexico (Mexico City and Guadalajara). Over the next three years, it attracted additional service to Hermosillo and Mexico City, as well as cargo service to China. As of February 2010, however, ONT has lost all international service, along with the Customs and Border Patrol staffing that is very difficult to obtain and that would be needed to accommodate international service in the future.
- JetBlue, which originally initiated its service to Southern California at ONT in 2000, now serves three Los Angeles area airports - LAX, Long Beach, and Burbank - but not ONT.
- R Of the 100 largest U.S. airports, ONT's performance in terms of passenger growth since 2007 ranked 98th.

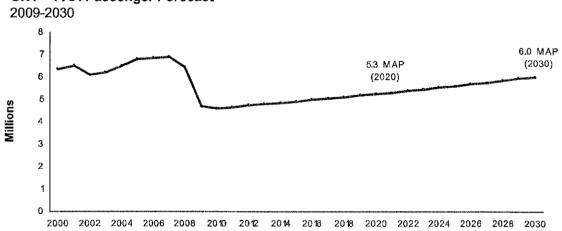
• As a secondary airport in a large metro area, ONT's airlines would normally include multiple low cost carriers. Instead, all the major low cost carriers in the Los Angeles area now serve LAX, while Southwest is the only low cost carrier remaining at ONT (see chart below).

	LAX	ONT
Southwest	6,151,260	2,560,150
Virgin America	1,601,610	
AirTran Airways	504,340	
Frontier Airlines	437,980	
Allegiant	218,950	
JetBlue	168,740	
Spirit Airlines	127,040	
Midwest Express	76,440	
Sun Country Airlines	53,680	
	9,340,040	2,560,150

Low Cost Carrier Passengers at LAX and ONT 2009 Domestic O&D

Source: Domestic O&D Survey 2009

Based on recent performance and trends, the FAA projects that ONT passengers will reach only 6 million by 2030, a figure that ONT passed in the '90s and that is 17 percent lower than ONT's passenger volume was in 2005. Regardless of the accuracy of that forecast, there is reason for grave concern about ONT's future.



# ONT – FAA Passenger Forecast

Source: FAA TAF 2009-2030; Passengers = Enplanements x 2. FAA actual 2000-2008; FAA forecast 2009-2030

What is causing ONT's air service decline? Can an effective recovery strategy be developed and implemented?

# 4. The Problem

In major metropolitan areas with multiple airports, the economics of the airline business favour large scale operations at the primary airport – in this case LAX. Successful secondary airports in metropolitan areas with multiple airports almost invariably share two characteristics:

- 1. Substantially lower costs than the primary airport. Especially during the current downturn when primary airports are less congested, it is more important than ever that secondary airports maintain their cost advantage; and
- 2. Aggressive marketing campaigns for air service that recognize the secondary airport must compete with the primary airport and other airports in the region for passengers and flights.

As discussed below, LAWA's management of ONT has burdened the airport with the highest costs in the region and among the highest in the country.

At the same time, LAWA has made drastic cuts in ONT's marketing efforts, slashing the resources devoted to ONT market by 85% since 2007.

Whether these facts reflect a deliberate LAWA policy to develop LAX at the expense of ONT is unknown. Whether deliberate or not, the result is the same – ONT has extremely high and uncompetitive costs, and has sharply curtailed its marketing efforts.

## A. ONT's Extremely High Airport Costs

From an airline perspective, airport costs are typically measured in terms of the Cost per Enplaned Passenger (CPE). The CPE is the sum of the charges paid by the airlines to the particular airport divided by the number of passengers departing from that airport. The most recent reported U.S. median CPE was \$6.76 for FY08². In budget information provided by LAWA to the City of Ontario, ONT's CPE is projected to be approximately \$14.50 in the current fiscal year, or more than double the U.S. median. The LAWA/Jacobs Report provides an even higher ONT CPE estimate of \$16 for 2010.³

The airlines are not able to charge higher fares at ONT to make up for the higher ONT airport cost. (In a region with competing airports, travelers are not willing to pay higher airfares to fly from ONT than other area airports.) Thus ONT's higher cost reduces the airlines' ability to make a profit at ONT. And the nearly \$8 *difference* between ONT's CPE and the U.S. median exceeds the airlines' total average profit per enplaned passenger.

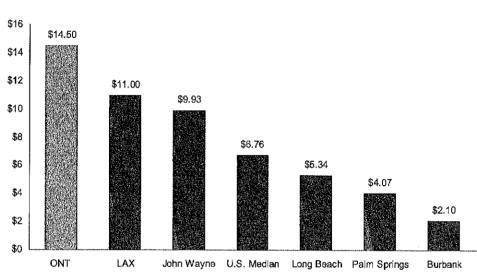
² U.S. Airport Medians for FY 2008, Moody's U.S. Public Finance, November 2009.

³ See Alternatives for Management and Operation LA/Ontario International Airport, August 2, 2010, p.9.

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As widely reported, ONT's projected CPE for the current fiscal year exceeds that of all airports in the region. The LAWA/Jacobs Report⁴ shows that ONT's CPE is the highest among the 31 medium-size airports it evaluated. A broader analysis shows that ONT's CPE is the 2nd highest among the 69 airports served by Southwest Airlines.

Recent cost estimates for ONT, LAX, and the other Southern California airports are provided below.



Cost per Enplaned Passenger Most Recent Fiscal Year

Source: Airport financials, press reports, FAA Form 127

CPEs are somewhat of a moving target as airline enplanements change and airports embark on major capital programs. As discussed below, although ONT's CPE also will rise and fall as enplanements change, the airport is fortunate to have a low level of debt, and therefore should have a greater ability than most airports to reduce costs during periods of declining enplanements.

# B. The Role of Low Costs in Attracting Additional Air Service

Examples of successful secondary airports in large metro areas include: BWI, where lower costs were a strong factor in attracting Southwest's major operation there over Washington Dulles; and Ft. Lauderdale, where lower costs led to the development of LCC service there while Miami has none. Chicago Midway Airport, Houston Hobby, Boston Manchester, and Dallas Love Field have all achieved success by having much lower costs than the primary airports in these metropolitan areas.

⁴ See Alternatives for Management and Operation LA/Ontario International Airport, Jacobs Consulting, August 2, 2010, p. 9.

Low cost carriers, such as Southwest, JetBlue, AirTran, Allegiant, Spirit, and Frontier, which offer a simplified fare structure and lower average fares, are the most likely candidates for growth at ONT. These carriers are also the most likely to consider airport costs as an important factor in their air service decisions. ONT's current high costs present a significant hurdle to the expansion of air service.

As an example, Allegiant – perhaps the most cost-sensitive of all carriers – made the unexpected decision to serve LAX instead of ONT based at least in part on LAX's lower costs. Allegiant's decision to serve LAX beginning in May 2009 stands in contrast to its actions in other large urban areas, such as Phoenix, where it serves a secondary airport, Williams Gateway; and Tampa, where it serves a secondary airport, St. Petersburg. Allegiant has recently expanded service in the LA region by initiating service to four cities from Long Beach, another lower cost airport.

Although there is no guarantee that lowering ONT costs will result in more air service, having low costs gives ONT a fighting chance to reverse the recent loss of air service and to begin a long-term growth trend. With lower costs more typical of a secondary airport in a large metropolitan area, ONT would be well-equipped to make its case for additional or new service to Southwest, JetBlue, Allegiant, and other low cost carriers.

The LAWA/Jacobs Report acknowledges the importance of lowering ONT's costs:

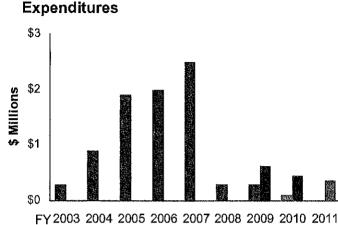
"Reducing CPE alone would not result in an increase in air service from incumbent airlines in the short-term, but doing so could be an important step in the long-term growth in air service from incumbent airlines and in attracting competitive air service from new-entrant airlines."⁵

### C. LAWA's Drastic Reduction of Air Service Marketing at ONT

Apart from having low costs, nearly all successful secondary airports have engaged in aggressive air service marketing campaigns. LAWA did so as well for ONT until 2007, when it changed course and slashed the resources devoted to ONT marketing efforts.

Precise figures on ONT marketing expenses are not broken out in LAWA's budget, but the information below is believed to be reasonably accurate.

⁵ See Alternatives for Management and Operation LA/Ontario International Airport, Jacobs Consulting, August 2, 2010, p. 3.



# Estimated ONT Air Service Marketing

Source: Estimated based on industry sources and LAWA budget analysis; 2009-2011 figures in grey provided by LAWA.

Figures for FY2003 through 2008 are based on historical information and industry sources, with estimates going forward. Separate figures in grey for FY2009-2011 are as provided by LAWA

After spending in the range of \$2-3 million per year for ONT air service marketing during FY 2005-2007, LAWA slashed that figure to less than \$400,000 for the current fiscal year, a reduction of approximately 85%.

LAWA has never explained this deliberate decision to curtail air service marketing at ONT. It is, however, inconsistent with LAWA pledges to support regionalization and has been harmful to air service development at ONT. During this same period, many U.S. airports were increasing the resources devoted to air service marketing in the face of growing competition among airports for new air service.

Other LAWA actions further illustrate its lessening commitment to ONT. For example, for many years, the LAWA Board of Airport Commissioners routinely held two Commission meetings each year in Ontario to demonstrate its commitment to ONT and regionalization. The BOAC has not held a meeting in Ontario since October 2007 (almost 3 years).⁶

## D. Understanding the Components of ONT's Costs

The charges paid by the airlines serving ONT are determined by totalling the airport's operating expenses and debt payments, and subtracting any revenue the airport receives from sources such as airport parking, rental car fees, and airport food and retail. The balance is what the airlines must pay.

⁶ LAWA reports that it discontinued ONT meetings based on a City Attorney opinion that prohibits LAWA from acting on any LAX or Van Nuys items during meetings held outside of Los Angeles.

To determine why ONT's costs are so high, it is necessary to briefly review the airport's operating expenses, debt payments, and non-airline revenue. Although the LAWA/Jacobs Report suggests that additional study is needed to determine why ONT's costs are so high, even a cursory analysis of the airport provides a clear answer. We begin with a review of ONT's debt.

# E. Airport Debt – Not the Problem

Some airports have high costs as a result of the substantial debt incurred as part of large capital development programs. The debt incurred in building the Denver Airport in the early 1990s made it a particularly costly airport for many years, as did the debt required to finance San Francisco's international terminal in 2000. Debt service requirements sometimes make up more than half of total operating costs at airports with major capital programs.

ONT is fortunate in that it has little debt. Fitch Ratings, in its March 2009 review of ONT, highlights the airport's "low debt levels" and "very modest and level debt profile (with debt service payments representing only 8% of total operating revenues in fiscal 2008)." Fitch notes as well that the "airport has no major capital projects over the next 5-10 years and intends to fund maintenance capital projects from airport cash and from passenger facility charge revenues and grants."

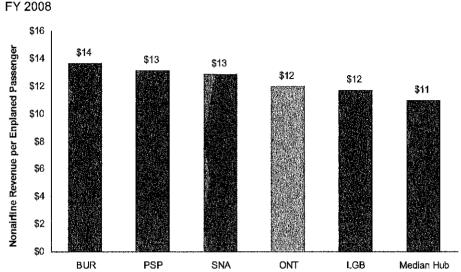
The median level of airport debt for U.S. airports was \$78 per O&D passenger in fiscal 2008, according to Moody's⁷. For Ontario, the comparable figure was only \$23 in airport debt per enplaned passenger. For the current fiscal year, the ONT figure will have risen to about \$34 because of the declining number of passengers. Even so, ONT's outstanding debt is only 44% the level of the median U.S. airport. In short, despite ONT's passenger declines, debt is not the cause of its high costs. Other things being equal, ONT's low debt means it should have lower than average costs.

## F. Revenue from Non-Airline Sources – Not the Problem

The more revenue collected from sources such as airport parking, rental car fees, airport food and retail, and other "non-airline" sources, the lower the fees the airlines must pay.

Although there is certainly room for improvement in some aspects of ONT's non-airline revenue management efforts, it turns out that ONT's non-airline revenue per enplaned passenger is slightly higher than the medium-hub airport average of \$11. This is primarily because ONT's parking revenue and rental car rental are higher than average. These sources of revenue more than compensate for ONT's lower than average food & beverage and retail revenue.

⁷ U.S. Airport Medians for FY 2008, Moody's U.S. Public Finance, November 2009.



Nonairline Revenue per Enplaned Passenger

In summary, a lack of non-airline revenue is not the cause of ONT's high costs. Other things being equal, ONT's higher than average non-airline revenue means that it should have lower than average airline costs.

# G. Sky High Airport Operating Expenses

If ONT has low airport debt and above average non-airline revenue, what is the reason for ONT's high costs? The short answer is that ONT has extremely high operating expenses as a result of:

- A much larger workforce than comparable airports
- The burdensome LAWA administrative charge
- Much higher compensation levels than at comparable airports

For U.S. airports, the median level of operating expenses per enplaned passenger for FY 2008 was less than  $$14^8$ . For ONT, operating expenses per enplaned passenger have ranged from \$29 to \$33 over the past several years – and even after cost and staff reductions at ONT will be in the \$29 range. Thus, as the LAWA/Jacobs Report accurately states, even after cost cutting –

"ONTs total operating expenses per enplaned passenger are more than twice the average for U.S. medium hub airports"⁹.

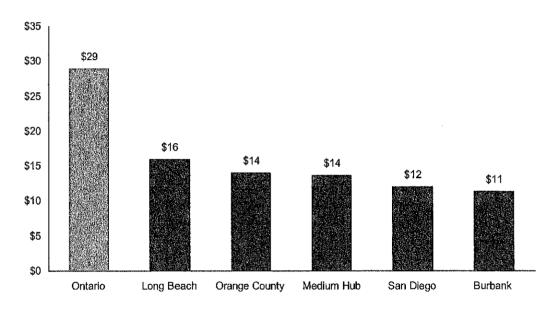
⁸ U.S. Airport Medians for FY 2008, Moody's U.S. Public Finance, November 2009.

⁹ See Alternatives for Management and Operation LA/Ontario International Airport, August 2, 2010, p.11.

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The LAWA/Jacobs Report shows that in comparison to ONT's \$29 operating expense, comparable airports had operating expenses ranging from \$9 to \$17 per enplaned passenger, with all but one of the comparable airports below the \$15 level.¹⁰

The chart below shows the operating expense per enplaned passenger at Los Angeles area airports and San Diego.



**Operating Expense per Enplaned Passenger** Most Recent Fiscal Year

Source: Airport financials, Fitch ratings reports, FAA Form 127

Stated differently, assuming that ONT had achieved the medium-hub airport cost average at its existing enplaned passenger level, ONT could generate over \$31 million in cost savings, or a cost reduction in the range of \$13 per enplaned passenger.

¹⁰ See Alternatives for Management and Operation LA/Ontario International Airport, August 2, 2010, p.11.

# H. Too Many Employees, at High Average Compensation Levels, and Additional Millions (\$) for Administrative Services

Comparing the number of employees at different airports has certain limitations because the degree of outsourcing differs.¹¹ Nevertheless, most airports operate within certain ranges, and in terms of employee staffing, ONT is in a class by itself.

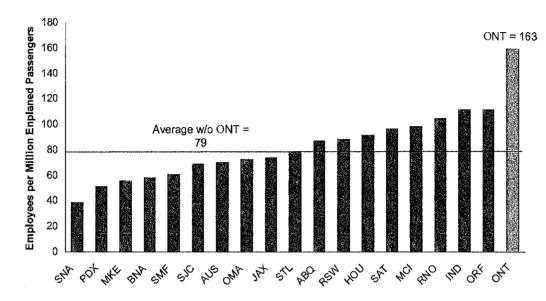
ONT has budgeted for 302 employees for the fiscal year beginning July 2010, an extremely high number that is discussed below. In addition to budgeting for those employees and other operating expenses, ONT pays LAX an administrative fee of 15% of its operating expenses. For the fiscal year that began July 2010, the administrative fee will be \$8.7 million. We do not know what services are provided in exchange for this charge. Although there are certainly some important functions that LAWA provides ONT, such as legal, risk management, etc., the magnitude of the administrative charge raises questions as to the value provided – and particularly so when viewed in conjunction with ONT's already high budget for wages and benefits.

ONT's compensation budget for the current fiscal year is \$30.9 million, which amounts to \$102,400 per employee. Taking into account the administrative fee, ONT's true employee count is really the 302 employees budgeted plus 85 additional LAWA employees that it pays for with the \$8.7 million administrative fee ( $85 \times 102,400$  is \$8.7 million).¹² The true total ONT employee count of 387 is more than double John Wayne's staff of 175, more than three times Long Beach's staff of 124, and more than San Diego's staff of 355 (SAN has three and a half times as many passengers as ONT).

Shown below for 18 medium-size airports is the number of airport employees per million enplanements, which range from 52 to 112 – with an average of 79 employees per million enplaned passengers. The ONT estimate of 163 employees per million enplaned passengers is more than double the average of the other airports.

¹¹ At Burbank, for example, most airport functions have been outsourced, and total airport salaries and benefits are only \$2.4 million compared with contractual services that are seven times that amount.

¹² Both the employee count and the administrative charge are down substantially from the year before when LAWA budgeted for 366 employees and a \$10.2 million ONT administrative charge.





Note as well that among medium size airports there is little correlation between the size of an airport and the number of employees reported per million enplanements. In other words, smaller airports do not necessarily have more employees per million enplanements.

Using the ratio of 79 employees per million enplanements and applying that ratio to ONT's projected 2.37 million enplanements shows that ONT should have approximately 187 employees – assuming that the administrative charge goes away – and not 302 as currently budgeted. If ONT continues to pay an \$8.7 million administrative charge, then ONT would need to reduce its staff from the current level of 302 employees to only 102 employees to reach an average staffing level. (The administrative charge alone adds \$3.68 per enplanement to ONT's costs – which is more than Orange County, San Diego, or Burbank paid in total compensation and benefits per enplanement in FY2008.)

Apart from the sheer number of employees, the ONT budgeted average employee compensation of \$102,400 is the highest of any airport in the region, with other airports having total average compensation at least 15% lower. And this figure may understate true average ONT compensation because many of ONT's core senior management functions are provided by LAWA. Even the airport manager position at ONT is split half time with Van Nuys Airport – an unusual arrangement for a medium hub airport.

Source: Analysis of reported airport staffing

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LAWA's management has made substantial cuts in ONT's operating costs.¹³ To have made such efforts only to achieve little progress in improving ONT's costs suggests that the LAWA organizational structure is simply not suited to operating an airport such as ONT which must have a competitive cost structure to have a realistic chance of succeeding. The LAWA/Jacobs Report suggests as much in its consideration of outsourcing the majority of ONT operations.

¹³ LAWA notes that there were 450 LAWA employees at ONT in 2007, and therefore the 2011 budgeted number of 302 represents a decrease of nearly one-third.

# 5. Transfer Options

This section discusses the three options set out in the LAWA/Jacobs Report, as well as the most logical option of transferring management control of the airport back to the City of Ontario.

Each option is evaluated using the following criteria:

- (1) Will the option result in ONT achieving a competitive cost structure?
- (2) Will the option result in ONT's management aggressively marketing the airport?
- (3) Does the option assure that management will devote the time and attention needed to develop ONT to its full potential?
- (4) Does the option assure that ONT's interests will be paramount and not subject to conflicting priorities?

### A. LAWA/Jacobs Report Options

The following three options are discussed in the LAWA/Jacobs Report:

<u>LAWA continues to manage and operate ONT</u> – LAWA would continue to seek ways to lower airline costs and increase non-airline revenues.

This option is a continuation of the status quo that has not worked to date and fails to meet any of the four criteria outlined above—cost reduction, aggressive marketing, management focus, and conflict avoidance.

 $3^{rd}$  Party Terminal and Parking Concession Agreement – LAWA would outsource the operation and maintenance of the terminal facilities, concession program, public parking, and rental car.

This option partially addresses the first criterion and none of the others. By outsourcing portions of the airport to a more efficient operator, it would lower airport costs. However, it does not outsource the entire airport, including portions that consume significant operating resources, and therefore may not achieve the cost reductions required. In addition, it does not address the other criteria listed above.

Long Term Concession Agreement – LAWA would lease the airport for 40-60 years. Although the LAWA/Jacobs Report does not mention the FAA's privatization program, the description suggests that vehicle would be used.

This option may or may not ultimately lead to a competitive cost structure for the airlines at ONT. So far, there have been no successful privatization efforts in the U.S. so this is unproven territory. What we do know, however, is that even if successful, the privatization process will take at least 2-3 years. ONT cannot wait that long to make substantial progress in reducing costs and to begin to aggressively promote the airport. Each month that passes means less air service at

ONT and a more difficult recovery. Depending on the structure of the deal, this option may satisfy the other criteria listed, at least if Ontario is the public agency sponsoring the privatization."

# **B.** Transfer of Control to Ontario

The City of Ontario once used the JPA to transfer control of ONT to the City of Los Angeles. The same JPA may be used to transfer management and operational control of ONT back to the City of Ontario. Ontario is committed to taking whatever steps are necessary to assure that this vital economic engine is reinvigorated through the creation of a low-cost airport that aggressively markets the airport and region. For Ontario, there is no doubt as to the airport's highest priority of attracting new service, nor will there be the appearance of a conflict of interest.

# 6. The Ontario Imperative

It is a hopeful sign that Los Angeles recognizes the need for a different approach to the management and operations of ONT. Ontario strongly believes that the management and operating responsibility for ONT should be transferred to the City of Ontario through a modification of the JPA as described in this White Paper. This option provides the greatest opportunity to ensure the long-term viability of ONT while achieving the mutual goal of airport regionalization.

There must be a sense of urgency as the two cities work together cooperatively to find a way to reverse the downward decline of air service and passenger traffic at ONT. Since 2007 passenger traffic at ONT has plummeted more than 32 percent. Adding to the need for immediate action, airlines serving ONT have announced flight schedule reductions of nearly 8 percent in the second half of 2010. In economic terms, the decline in air service at ONT from 2007-2009 has meant the loss of over \$400 million to the Inland Empire regional economy and the loss of over \$,000 jobs.¹⁴

In 2006, LAWA affirmed its commitment to regionalization as part of the settlement of a lawsuit challenging the Master Plan for expansion of LAX. There, LAWA expressly agreed to "develop a regional strategic planning initiative to encourage the growth of passenger and cargo aviation activity at under-utilized, LAWA owned, commercial airports in the region (currently Ontario International Airport and Palmdale)."

It is admirable that LAWA has begun to reduce operating costs at ONT. It is crucial that the City of Ontario continue this process as it aggressively markets the airport. There also must be recognition that there is the appearance of a conflict as a result of LAWA owning and operating competing airports in the current and future Southern California economy. This conflict must be addressed as a prerequisite to achieving true airport regionalization and restoring ONT as an economic engine for the region.

Since 2001, LAX has declined from the 3rd busiest airport in the world to the 7th. In 2009, it served 56.5 million passengers, a loss of 5.9 million passengers since 2007 and 10.8 million since 2000. Ontario understands LAWA's need to focus attention and resources on rebuilding LAX traffic even as it mounts the largest capital improvement program in the airport's 83-year history.

Returning ONT to local control will also promote airport regionalization, a key initiative of Los Angeles Mayor Antonio Villaraigosa. Regional airports in Southern California under local control have rebounded from 9/11 and weathered the recessionary economy. Regional airports

¹⁴ Estimated total economic impact of ONT passenger air service; 2007: \$1.27 billion; 2009: \$860 million; loss of \$410 million. Estimated total jobs created by ONT: 2007: 25,081; 2009: 17,006; loss of 8,075 jobs. Source: Oliver Wyman analysis.

Ontario International Airport - A Recovery Plan City of Ontario

under absentee control – ONT and Palmdale Regional Airport – have not. Adding to the importance and urgency of airport regionalization is SB 375. Without a healthy ONT, the region will be challenged to develop a successful sustainable community strategy under SB 375 which the California Air Resource Board would approve.

Under local control, ONT will simultaneously reduce its cost structure and increase its marketing, advertising and promotion spending to provide the airport capacity Southern California needs in the long term to protect its tourism economy. Other airports in the region are constrained. John Wayne Airport has a passenger cap. Long Beach Airport has a noise cap. Bob Hope Airport is constrained by its facilities and staunch opposition to airport expansion from the City of Burbank. Palm Springs Airport's ability to assume a greater market share is limited by its distance from the regions' major population centers. ONT is the only airport in Southern California that is unconstrained, and where there is political and community support for greatly expanded operations.

SOUTHERN CALIFORNIA



#### ASSOCIATION of GOVERNMENTS

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#### Officers

President Larry McCallon, Highland

First Vice President Pam O'Connor, Santa Monica

Second Vice President Glen Becerra, Simi Valley

#### Executive/Administration Committee Chair

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#### **Policy Committee Chairs**

Community, Economic and Human Development Bill Jahn, Big Bear Lake

Energy & Environment Margaret Clark, Rosemead

Transportation Greg Pettis, Cathedral City

# AMENDED Agenda Item #7

September 2, 2010

Mr. Miguel A. Santana City Administrative Officer City of Los Angeles 200 N. Main St. Suite 1500 Los Angeles, CA 90012-4137

Dear Mr. Santana:

SCAG is aware that you have been asked to submit a report to the Los Angeles City Council's Budget Committee in September in response to a Council motion, on the feasibility of transferring operating control of LA/Ontario International Airport (ONT) from Los Angeles World Airports (LAWA) to the City of Ontario.

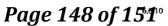
SCAG has enjoyed the long partnership with City of Los Angeles and the leadership position the City has demonstrated in providing for interregional and international travel (i.e. LAX and Ontario airports). Continuation of options for international and national travel for the 19 million residents of the regions is essential for the economy, livability, clean air and other public policy goals the City and SCAG have partnered on. At the same time, SCAG understands the tough economic challenges the city faces during this recession.

Staff have reviewed the recent report from Jacobs Consultancy – "Alternatives for Management and Operation of LA/Ontario Airport" – commissioned by LAX, that was presented at the August 2 meeting of the Los Angeles Board of Airport Commissioners. Staff has also received a briefing on this issue from Ontario and San Bernardino County officials.

SCAG supports the finding to recommend the transfer of ONT to local control as being in the best interests of Los Angeles and the Southern California region. The transfer will enable LAX to focus its attention on modernizing Los Angeles International Airport and restoring passenger traffic to pre-9/11 levels – essential steps to make LAX achieve its full potential as the City's primary economic engine.

SCAG believes that under local operating control, ONT can recover from the economic downturn of the past several years while positioning itself for long-term growth which would be consistent with the "reorganization" of the air traffic contemplated in the SCAG's Regional Transportation Plan. By transferring control of ONT to the City of Ontario, ONT will operate on the same basis that airports in Burbank, Orange County, Long Beach and Palm Springs operate as a low-cost secondary airport under local control.

The Regional Council is comprised of 84 elected officials representing 189 cities, six counties, six County Transportation Commissions and a Tribal Government representative within Southern California.



#### SOUTHERN CALIFORNIA



#### ASSOCIATION of GOVERNMENTS

#### Main Office

818 West Seventh Street 12th Floor Los Angeles, California 90017-3435

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#### Executive/Administration Committee Chair

Larry McCallon, Highland

#### **Policy Committee Chairs**

Community, Economic and Human Development Bill Jahn, Big Bear Lake

Energy & Environment Margaret Clark, Rosernead

Transportation Greg Pettis, Cathedral City During the recession of the past several years, ONT has one of the highest operating costs in the region. Over the past decade, as other regional airports have recovered from 9/11 and increased their market share, ONT has lost more than two decades of traffic growth and seen its market share decline. This is unfortunate since ONT is the only airport in the system not constrained by passenger or noise caps (John Wayne and Long Beach, respectively) or facility constraints (Bob Hope) or a legally enforceable settlement agreement (LAX).

SCAG recognizes that LAX has several billion dollars of debt to finance the Bradley West and related projects. While these facility improvements may push airline rates and charges higher, that alone is not sufficient to drive low-cost airlines to ONT. If ONT does not simultaneously reduce costs and build traffic to reduce its cost per enplaned passenger, airlines will be incentivized to find markets outside Southern California where they can obtain the highest returns for their aircraft assets. This result would negatively affect the economy of not only the Inland Empire but the entire southern California region including Los Angeles.

Southern California must continue to have a robust system of regional airports both to accommodate local demand and to minimize automobile traffic and emissions resulting from unnecessary reliance on LAX. In that regard, it is especially important that ONT, which is uniquely positioned to accommodate growth, be operated in a way that enables it to achieve its full potential. As airline traffic rebounds and LAX approaches its practical capacity based on ground access and facilities, the region's need for a fully-developed and healthy ONT will become increasingly important. Without ONT, SCAG and the region will be challenged to develop a successful sustainable community strategy under SB 375 which the California Air Resource Board would approve. In summary, SCAG believes that the transfer of ONT to local control is in the best interests of all jurisdictions including Los Angeles. It also is in the best interests of promoting regionalization and boosting our region's economy.

Thank you for considering SCAG comments as you deliberate in preparing your report and making your recommendation. SCAG respectfully requests that this letter be provided to the City Council when your report is transmitted.

Sincerely,

Hosastkhuth

Hasan Ikhrata Executive Director

CC Regional Council Greg Devereaux, CAO County of San Bernardino

The Regional Council is comprised of 84 elected officials representing 189 cities, six counties, six County Transportation Commissions and a Tribal Government representative within Southern California.



# Los Angeles Times

THURSDAY, MARCH 10, 2011

EDITORIALS

# Turbulence over Ontario

ot ALL THE TURBULENCE in the local air travel world is in the skies; there's quite a bit of it in the relationship between the clies of Ontarlo, where officials are fighting for control of their regional airport, and Los Angeles, where the agency that runs Los Angeles International Airport seems determined to hold on to the Inland Empire facility. It's a complicated issue, but we can't see a compelling reason for L.A. to keep running an airport so far away.

No one denies that Ontario International Airport is hurting badly. The number of passengers is down by nearly 30% since 2007, and the drop in traffic is damaging the local economy. The key question is why. Those who support the status quo maintain that the downturn is a function of the economic slump, which hit the Inland Empire particularly hard. But Ontario officials blame managers at Los Angeles World Airports, the city agency that also runs LAX and Van Nuys Airport.

They point out that Ontario Airport has extraordinarily high operating costs because it employs far more people than comparably sized facilities and, under L.A. labor rules, pays them more. As a result, Ontario must charge airlines the highest per-passenger fees in the region and among the highest in the country; at LAX, the cost per passenger is \$11, and the U.S. median is \$6.76, yet it's a whopping \$14.50 at Ontario. What's more, the airport agency slashed Ontario's marketing budget.

Although Los Angeles World Airports is considering bids from private operators vying to take over day-to-day management of Ontario Airport, a staff report obtained by The Times makes it clear that managers don't favor ceding control to Ontario. A PowerPoint presentation created for the agency's board said marketing functions might be transferred to Ontario, but otherwise, inanagers see no reason to give more power to "a jurisdiction that has no experience in managing a cominercial airport."

This might all seem like a minor spat between regional powers, but the decisions will have repercussions. Consider the case of a low-cost airline currently operating out of LAX, where landing fees are likely to rise to pay for capital improvements. If it can get a better deal at Ontario, it might transfer flights there and at least stay in Southern California. But if there's no competitive airport, it's more likely to leave the region entirely, taking economic benefits with it. A healthy Ontario Airport is in everybody's intcrest, and although L.A. wage rules are fine for LAX, it's not fair to impose them on another city where living conditions differ. Los Angeles gains little by continuing its hold on Ontario's airport, but it has something to lose.

#### MONDAY, OCTOBER 18, 2010

#### Los Angeles Times

# OP-ED

# Ontario needs its airport back

A deal signed in 1967 to let L.A. run the facility makes no sense today.

#### Alan D. Wapner

T'S ALWAYS BEEN an oddity that L.A./Ontario International Airport (ONT) — located 35 miles east of downtown Los Angeles In San Bernardino County — has been operated by Los Angeles. That arrangement worked well for more than 40 years. But it doesn't now, and that must be fixed for the good of the entire region.

While other secondary airports in Southern California have rebounded from 9/11, weathered the recession and increased market share. ONT has Jallen on hard times. Today, it operates at passenger traffic levels not seen in nearly a quarter-century, and its market share continues to decline. As a result, the city of Ontario feels strongly that the auccess of ONT as an integral part of Southern California's airport system requires that local control be restored.

During the 1960s, ONT often accommodated airplanes diveried from Los Angeles International Airport when that facility was fogged in. Consequently, the cities of Ontario and Los Angeles felt it would be in the best Interests of the Southern California region if Los Angeles took responsibility for operating the airport stree L.A. had airport operations expertise and crucial sirline rolationships. To that end, the two cities signed an agreement in 1957. Today, however, Los Angeles has an inherent conflict of interest in controlling both alrports. As Los Angeles struggles to regain lost traffic at LAX and to pay for a multibiliton-dollar expansion, it views ONT as something of a competitor deserving scant attention.

To avoid this conflict, Los Angeles World Alroots, the agency that operates both facilities, must relinquish control of ONT and concentrate on LAX. The need for this was highlighted by LAWA Executive Director Gina Marie Lindsey's comments at the July 14 meeting of the L.A. Board of Airport Commissioners;

"Now continuing to pursue a strategy that actively pushes traffic away from the city of Los Angeles and into other jurisdictions could be viewed as a little self-destructive."

LAWA's reduced commitment to Ontario is manifested in other ways. A September study commissioned by Ontario to explore the reasons for the airport's decline included the following findings: a smaller budget for the marketing needed to attract new air service and scant concern about the high airport charges that make it difficult for airlines to make a profit at the facility. These high charges result from overstaffing at the airport, high labor costs and a 15% LAWA administrative fee that Ontario bears as part of its operating budget. For elected officials and resi-

For elected officials and residents of Los Angeles alike, the reasons for restoring local control of ONT are compelling. This action would:

Allow LAWA to focus its energy and time on LAX for the benefit of the region's economy as a whole.

 Promote regionalization by returning ONT to local control, which is proved to be conducive to developing robust regional air- ports because the sponsoring community has a vested inferest in the airport making the greatest contribution to its economy.

■ Ensure that all of Southern Callfornia — including Los Angeles will have sufficient, sensibly priced airport expacts, Without adequate capacity, airlines will be forced to land elsewhere. Foor airport planning has already harmed the Los Angeles economy. A few years ago, Qantas relocated one flight from LAX to San Francisco International Airport — along with the \$300 million the flight contributed to the local economy — because LAX lacked adequate hirnstructure to handle the aircraft. Shift responsibility, accountability and risk for ONT's performance from Los Angeles to Ontario.

ONT must not be allowed to continue its downward spiral. It is too important to Southern Californla's economy, and it is essential to help meet the region's longterm demands for at travel.

For these reasons, the 83member Regional Council of the Southern California Assn. of Governments, or SCAG, recently voted unanimously — in an unusual move without further discussion — to recommend the transfer of ONT to local control.

"Southern California must have a robust system of regional airports both to accommodate local demand and to minimize automobile iraffic and emissions resulting from unnecessary reliance on LAX," said SCAO in a Sept. 3 letter to Miguel Santana, L.A.'s city administrative officer. "As airline traffic rebounds and LAX approaches its practical capacity based on ground access and facilities, the region's need for a fully developed and healthy ONT will become increasingly haportant."

It is time for Los Angeles to transfer management and operational control of Ontario Airport back to the city of Ontario.

ALAN D. WAENER is mayor protem of Optario. From: Mary Ann Lutz [mailto:maryann@lutz-co.com] Sent: Saturday, February 18, 2012 5:03 PM To: awilson@lcf.ca.gov; frankg1@denram.com; 'Jacki Bacharach - South Bay Cities COG'; 'John Takhtalian - Arroyo Verdugo Cities'; jquan@cacities.org; MAlvarado@ci.monrovia.ca.us; mrychlicki.wsccog@gmail.com; 'Nick Conway'; rbow@ci.monrovia.ca.us; 'Richard Powers - Gateway COG'; robb@grassrootslab.com; snwdale@earthlink.net; sochoa@ci.glendale.ca.us; Susan.Reyes@sen.ca.gov; 'Terry Dipple - Las Virgenes-Malibu COG' Cc: maryann@lutz-co.com; 'Heather Maloney' Subject: SAVE THE DATE - Meeting with US EPA

Save the Date:

The City of Monrovia will be hosting a meeting with the US EPA, on behalf of the Municipalities of Los Angeles and various other stakeholders, to discuss US EPA's Draft Integrated Planning Approach Framework and other related storm water and NPDES issues on Monday, February 27, 2012, 1:30 p.m. – 3:30 p.m., at the Monrovia Community Center, 119 West Palm Ave, Monrovia, California 91016. The following are encouraged to attend:

• Mayors and Council Members from cities within Los Angeles County

- City Managers, Public Works Directors and various city staff members
- Representatives from Water Agencies

• Elected State Senators and Assembly Members and/or their staff representatives

• Elected Congressional members and their staff representatives Further details, including the meeting agenda will be sent out next week.

#### THE BACKGROUND:

In mid-January while attending the US Conference of Mayors while sitting in my capacity of a member of the Mayors Water Council, I became aware that US EPA had developed an integrated planning

framework document for NPDES/MS4 permits. This is very a timely because we in Los Angeles County are in the mist of negotiating the permit for our area. During the discussion it was explained that workshops would be held to hear comments regarding this draft and other items related to NPDES permits. I was quite dismayed to find that there were no workshops scheduled in EPA Region 9, and more specifically Southern California. The comment period ends March 30, 2012.

After my return I requested that EPA hold such a workshop in our area.

They are not able to hold an official workshop, but indicated to me that if we were to schedule a study session/meeting, they would attend and hear our comments and input.

Please feel free to invite anyone you think might benefit.

Please review these documents and come to the meeting with your

comments and questions. If you are unable to attend but would still

like to have your opinions heard by EPA please put them in writing and send them to Heather Maloney (see below) and we will hand deliver them on the February 27. Thank you,

If you have any questions about the meeting or to RSVP, please contact Heather Maloney (contact information below). Heather M. Maloney

Senior Management Analyst, Administration & Environmental Services City of Monrovia - Department of Public Works 600 S. Mountain Ave, Monrovia, CA 91016 ( 626.932.5577 | 7 626.932.5559 | * hmaloney@ci.monrovia.ca.us<mailto:hmaloney@ci.monrovia.ca.us>

Thank you very much and see you on February 27th!

My Best, Mayor Lutz

Mary Ann Lutz, Mayor

City of Monrovia

415 S. Ivy

Monrovia, CA 91016

Direct: (626) 303-1113

Cell: (626) 695-6222

Fax: (626) 303-7883

MaryAnn@Lutz-Co.com<mailto:MaryAnn@Lutz-Co.com>

From:	Heather Maloney <hmaloney@ci.monrovia.ca.us></hmaloney@ci.monrovia.ca.us>
Sent:	Thursday, August 23, 2012 1:41 PM
То:	LAMS42012; Ridgeway, Ivar@Waterboards
Cc:	Unger, Samuel@Waterboards; Purdy, Renee@Waterboards; Ashli Cooper Desai (AshliD@lwa.com); Heather Merenda (hmerenda@santa-clarita.com); Joe Bellomo (jbellomo@willdan.com); John Dettle (jdettle@TorranceCA.Gov); John Hunter (jhunter@jha.net); Mack Walker (MackW@lwa.com); Patricia Elkins (pelkins@carson.ca.us); Ray Tahir (rtahir@tecsenv.com)
Subject:	RE: LAPG Speaking Request at RB Hearing for MS4 NPDES Permit
Importance:	High

Dear Ivar,

The LA Permit Group would like to request status as a party to speak at the Regional Board Hearing for the LA MS4 NPDES Permit on October 4-5, 2012. Per the Hearing Notice, the requested information is provided regarding our request for specking time:

- Name, phone number, email address of person designated to receive notices all notice information should be addressed to Heather Maloney, Chair LA Permit Group, (626) 932-5577, <u>hmaloney@ci.monrovia.ca.us</u>.
- Reason for request as you are aware, the LA Permit Group is a collaborative group of 62+ agencies working to collaboratively develop and negotiate the Permit with NGO's and the Regional Board staff. The LA Permit Group's comments represent the collaborative comments of the participating agencies.
- Why designated parties do not represent interests The LA Permit Group will provide consolidated comments
  representing the consensus of the agencies participating in the LA Permit Group. We will be covering the main
  comments on the permit and individual cities will likely be expressing specific examples from their city and/or
  more detailed comments than those presented by the LA Permit Group. The comments are intended to be
  complimentary, rather than duplicative, of those presented by the individual parties. The LA Permit Group will
  be coordinating with other parties as requested in the effort to coordinate presentations.
- Time request the LA Permit Group requests 3 hours for presentation and comments.
- We also request to have the opportunity to present evidence on the day of the hearing.

Sincerely,

Heather Maloney, Chair LA Permit Group

# Heather M. Maloney

Consider the environment. Please don't print this e-mail unless really needed.

This message contains information which may be privileged, confidential and intended only for the addressee. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any use, dissemination, distribution or reproduction of this communication, or any part thereof, is strictly prohibited. If you have received this message in error, please advise the sender by reply E-mail and delete the message

From: Heather Maloney
Sent: Monday, July 30, 2012 11:16 AM
To: LAMS42012@waterboards.ca.gov; iridgeway@waterboards.ca.gov
Cc: Samuel Unger; Renee Purdy (rpurdy@waterboards.ca.gov); Ashli Cooper Desai (AshliD@lwa.com); Heather Merenda (hmerenda@santa-clarita.com); Joe Bellomo (jbellomo@willdan.com); John Dettle (jdettle@TorranceCA.Gov); John Hunter (jhunter@jha.net); Mack Walker (MackW@lwa.com); Patricia Elkins (pelkins@carson.ca.us); Ray Tahir (rtahir@tecsenv.com)

Subject: LAPG Speaking Request at RB Hearing for MS4 NPDES Permit

Hi Ivar,

The LA Permit Group would like to request status as a party to speak at the Regional Board Hearing for the LA MS4 NPDES Permit in September. Per the Hearing Notice, the requested information is provided regarding our request for specking time:

- Name, phone number, email address of person designated to receive notices all notice information should be addressed to Heather Maloney, Chair LA Permit Group, (626) 932-5577, <u>hmaloney@ci.monrovia.ca.us</u>.
- Reason for request as you are aware, the LA Permit Group is a collaborative group of 62+ agencies working to
  collaboratively develop and negotiate the Permit with NGO's and the Regional Board staff. The LA Permit
  Group's comments represent the collaborative comments of the participating agencies.
- Why designated parties do not represent interests The LA Permit Group will provide consolidated comments representing the consensus of the agencies participating in the LA Permit Group. We will be covering the main comments on the permit and individual cities will likely be expressing specific examples from their city and/or more detailed comments than those presented by the La Permit Group. The comments are intended to be complimentary, rather than duplicative of those presented by the individual parties.
- Time request the LA Permit Group will provide our time request at a later date.

Sincerely,

Heather Maloney, Chair LA Permit Group

# Heather M. Maloney

Senior Management Analyst City of Monrovia - Department of Public Works - Administration & Environmental Services 600 S. Mountain Ave, Monrovia, CA 91016

🖀 626.932.5577 | 🖶 626.932.5559 | 🖂 hmaloney@ci.monrovia.ca.us



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From:	Heather Maloney <hmaloney@ci.monrovia.ca.us></hmaloney@ci.monrovia.ca.us>
Sent:	Thursday, August 23, 2012 12:58 PM
To:	LAMS42012; Ridgeway, Ivar@Waterboards; Purdy, Renee@Waterboards
Cc:	Andrew J. Brady; Ron Bow
Subject:	LA MS4 Permit Hearing on October 4-5, 2012 - Speaking Time Request
Importance:	High

Mr. Ridgeway:

The City of Monrovia is requesting 25 minutes for its presentation at the LA MS4 Permit Hearing on October 4-5, 2012.

Thank you for considering the City's request.

Please contact me if you have any further questions or concerns.

Sincerely,

# Heather M. Maloney

Senior Management Analyst City of Monrovia - Department of Public Works - Administration & Environmental Services 600 S. Mountain Ave, Monrovia, CA 91016 626.932.5577 | 🖶 626.932.5559 | 🖂 hmaloney@ci.monrovia.ca.us



Please take a moment to complete this short survey to tell us about your experience. Your responses will be kept confidential. Click <u>here</u> to take the survey

From:	Carver, Julie <julie_carver@ci.pomona.ca.us></julie_carver@ci.pomona.ca.us>
Sent:	Thursday, August 23, 2012 4:20 PM
То:	Unger, Samuel@Waterboards
Cc:	Purdy, Renee@Waterboards; Ridgeway, Ivar@Waterboards
Subject:	Additional Speaking time Request for October Board HEaring

Good afternoon Sam,

I would like to ask for 15 minutes for Council Member Danielle Soto to speak at the hearing in October. I do not have the exact reason, but she would like to address the potential impacts of the permit to our City.

Her contact information is:

Council Member Danielle Soto City of Pomona (909) 620-2075 Danielle.Soto@ci.pomona.ca.us

Thank you and have a great day.

Julie Carver Environmental Programs Coordinator City of Pomona (909) 620-3628

From:	Kelly Fisher <kfisher@ci.agoura-hills.ca.us></kfisher@ci.agoura-hills.ca.us>
Sent:	Thursday, August 23, 2012 4:33 PM
То:	LAMS42012; Ridgeway, Ivar@Waterboards; Purdy, Renee@Waterboards
Cc:	Ramiro Adeva; Candice K. Lee; 'Joe Bellomo'
Subject:	Agoura Hills - Request for Time for Presentation at LA MS4 Permit Hearing

Mr. Ridgeway:

The City of Agoura Hills is requesting five (5) minutes for its presentation at the LA MS4 Permit Hearing on October 4-5, 2012.

Thank you for considering the City's request.

Please contact me if you have any further questions or concerns.

Sincerely,

# Kelly Fisher

Public Works Project Manager City of Agoura Hills 30001 Ladyface Ct. Agoura Hills, CA 91301 818-597-7338

From:	Shawn Hagerty <shawn.hagerty@bbklaw.com></shawn.hagerty@bbklaw.com>
Sent:	Thursday, August 23, 2012 2:43 PM
То:	Ridgeway, Ivar@Waterboards
Cc:	Purdy, Renee@Waterboards; 'Craig Bradshaw'; 'Carver, Julie'
Subject:	City of Claremont's Request for Time at the October 4-5 LA MS4 Permit Hearing

Ivar: I represent the City of Claremont in connection with the LA MS4 Permit process. In accordance with the Notice of Opportunity for Public Comment and Notice of Public Hearing, this email informs the Regional Board that the City desires to have 15 minutes at the hearing to present evidence related to the manner in which the Draft Tentative Order incorporates the Middle Santa Ana River ("MSAR") TMDL. As the MSAR TMDL portions of the Draft Tentative Order apply to both Claremont and Pomona, we would be willing to share our requested time with the City of Pomona through a joint presentation if Pomona so desires. Regardless, however, Claremont requests this amount of time to address the MSAR TMDL issues.

Of course, if the Draft Tentative Order is revised as suggested in Claremont's comment letter, this testimony would not be needed. I have previously requested that we have a meeting or conference call with staff from both the LA and Santa Ana Regional Boards to discuss this issue. Claremont understands that the Santa Ana Regional Board supports the approach Claremont suggested in its comment letter. Claremont believes that a meeting or conference call might be sufficient to resolve this issue. As yet, I have not received a response to my previous request for a meeting or conference call. By this email, I renew my request.

Thank you for your consideration. Please advise me if this email is insufficient in any way to meet the requirements of the Notice regarding contacting the Regional Board by today to state how much time is needed to present evidence at the hearing.

Shawn Hagerty Best Best & Krieger LLP 655 West Broadway, Suite 1500 San Diego, CA 92101-3542 (619) 525-1300 Office (619) 233-6118 Fax

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From:	John Knipe <jknipe@willdan.com></jknipe@willdan.com>
Sent:	Thursday, August 23, 2012 2:51 PM
То:	LAMS42012
Cc:	Ridgeway, Ivar@Waterboards; CLee@rwglaw.com; john@wlv.org; Purdy,
	Renee@Waterboards
Subject:	FW: Westlake Village - Request for Time for Presentation at LA MS4 Permit Hearing

"Mr. Ridgeway:

The City of Westlake Village is requesting 3 minutes for its presentation at the LA MS4 Permit Hearing on October 4-5, 2012."

Thank you for considering the City's request.

Please contact me if you have any further questions or concerns.

Sincerely,

John Knipe City Engineer City of Westlake Village

From:	Adriana Figueroa <afigueroa@ci.norwalk.ca.us></afigueroa@ci.norwalk.ca.us>
Sent:	Thursday, August 23, 2012 12:59 PM
То:	LAMS42012
Cc:	Ridgeway, Ivar@Waterboards; Purdy, Renee@Waterboards; Andrew J. Brady; Mike
	Egan, City Manager; Daniel Garcia; Grissel Chavez
Subject:	LA MS4 Permit Hearing in October

Mr. Ridgeway:

The City of Norwalk is requesting 15 minutes for its presentation at the LA MS4 Permit Hearing on October 4-5, 2012.

Thank you for considering the City's request.

Please contact me if you have any further questions or concerns.

Sincerely,

# Adriana Figueroa

Administrative Services Manager City of Norwalk - Administration Dept. 12700 Norwalk Blvd. Norwalk, CA 90650 (562) 929-5915

From: Sent: To: Cc: Subject: Ray Tahir <rtahir@tecsenv.com> Thursday, August 23, 2012 4:01 PM Ridgeway, Ivar@Waterboards Joseph Perez Request for Time

Hi Ivar,

I am requesting 2 hours of time for my clients and additional 5 minutes for their elected officials (5 x 20 = 100 minutes

Azusa, Baldwin Park, Carson Cerritos Compton Covina Claremont Duarte El Monte Gardena Lawndale Irwindale Lomita Pico Rivera San Dimas San Fernando San Gabriel South El Monte West Covina

Thanks Ivar,

Ray

From:	Mark Grey <mgrey@biasc.org></mgrey@biasc.org>
Sent:	Monday, August 27, 2012 11:52 AM
То:	Ridgeway, Ivar@Waterboards; Purdy, Renee@Waterboards
Cc:	Unger, Samuel@Waterboards; Holly Schroeder
Subject:	Request for Presentation Time at LA County MS4 Adoption Hearing

Hello Ivar and Rene, on behalf of BIA/SC, BIA-LAV, and CICWQ, we would like to request up to 30 minutes for a presentation during the upcoming MS4 permit adoption hearing on October 4 and 5, 2012.

We appreciate the consideration,

Mark Grey, Ph.D. Director of Environmental Affairs/Technical Director Building Industry Association of Southern California Construction Industry Coalition on Water Quality 3891 11th Street Riverside, CA 92501 (951) 781-7310, x.213 (office) (909) 525-0623 (cell)

From:	Arellano, Claudia <carellano@ci.vernon.ca.us></carellano@ci.vernon.ca.us>
Sent:	Tuesday, September 11, 2012 9:06 AM
То:	Ridgeway, Ivar@Waterboards
Cc:	Wilson, Kevin; Torres, Jerrick; Grossberg, Leonard; LeDuff, Dave
Subject:	PUBLIC HEARING FOR DRAFT NPDES PERMIT FOR MS4 WITHIN LA COUNTY
Importance:	High

Good morning Ivar,

The City of Vernon respectfully requests twenty (20) minutes to make a presentation to the Los Angeles Regional Water Quality Control Board on October 4, 2012 regarding the draft NPDES Permit for MS4 within Los Angeles County. Please confirm.

Thank you.

**Claudia Arellano** 

**City of Vernon** 

**Community Services & Water Department** 

4305 Santa Fe Avenue/Vernon, California 90058

323-583-8811 extension 258/Fax 323-826-1435

#### carellano@ci.vernon.ca.us

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From:
Sent:
To:
Subject:

Rick Valte <Rick.Valte@SMGOV.NET> Tuesday, September 11, 2012 2:11 PM Ridgeway, Ivar@Waterboards; LAMS42012 RWQCB meeting - LA MS4 Permit Adoption

Hello Ivar,

On behalf of the City of Santa Monica, I'm requesting an opportunity to make a 10 minute presentation at the RWQCB meeting on Oct. 4-5 regarding the draft LA county storm water discharge permit. Thank you for your consideration.

Sincerely,

Rick Valte, P.E., LEED AP Principal Civil Engineer

City of Santa Monica | Civil Engineering – Watershed & Land Development 1437 4th Street, Suite 300 | Santa Monica CA 90401 310.458.8234 O | 310.393.4425 F





### By Electronic Mail, U.S. Mail, and Hand Delivery

September 21, 2012

Los Angeles Regional Water Quality Control Board Attention: Laura Gallardo 320 West 4th Street, Suite 200 Los Angeles, CA 90013 Igallardo@waterboards.ca.gov

### Re: <u>Public Records Act Request – Communications by Board Member Mary</u> <u>Ann Lutz Related to Los Angeles MS4 Permit</u>

Dear Ms. Gallardo:

On behalf of the Natural Resources Defense Council ("NRDC") and Los Angeles Waterkeeper ("Waterkeeper"), we write to request certain public records concerning communications between Board Member Mary Ann Lutz and permittees, stakeholders, and/or other interested parties, including any consultants, contractors, lobbyists, or other persons working on behalf of these entities (collectively, "interested parties") concerning the Tentative National Pollutant Discharge Elimination System (NPDES) Permit for the Municipal Separate Storm Sewer System (MS4) Permit for Los Angeles County, Draft Permit R4-2012-XXXX, NPDES Permit No. CAS004001 ("Draft Permit"). Prior to a July 6, 2012 letter transmitted by the Los Angeles Regional Water Quality Control Board ("Regional Board") stating that "Board Member Lutz is not prohibited from participating [in the permit adoption process or hearing on adoption] as a discharger,"¹ Board Member Lutz engaged in an as yet unreleased number of *ex parte* communications with the interested parties, including parties to the Draft Permit hearing scheduled for October 4-5, 2012, that would ordinarily be prohibited under California Government Code section 11430.10. The Regional Board had previously indicated that these communications would be released for public review prior to the hearing. However, the communications not being forthcoming, NRDC and Waterkeeper hereby respectfully request that the Regional Board provide these documents. Please treat this letter as a formal request for records under the California Public Records Act, Cal. Gov't Code § 6250 et seq.

¹ Letter from Frances McChesney, Office of Chief Counsel, to Regional Board Members re: Amendment to Water Code Section 13207(a), (July 6, 2012), at 2; see also NRDC and Los Angeles Waterkeeper letter to Mr. Sam Unger, Executive Officer and Members of the Board, California Regional Water Quality Control Board, Los Angeles Region, re: Participation of Board Member Mary Ann Lutz in Los Angeles MS4 Permit Hearing, August 23, 2012.

Ms. Laura Gallardo RWQCB Los Angeles Region August 23, 2012 Page | 2

NRDC and Waterkeeper request from the Regional Board all "public records" and "writings"—as defined in Government Code section 6252(e) and (g)—comprising, discussing, or relating to any communications between Board Member Mary Ann Lutz, whether in her capacity as a Regional Board Member, as Mayor of the City of Monrovia, a discharger regulated under the Draft Permit, or in any other capacity, and any interested party or parties as defined above, related to the Draft Permit or stormwater in Los Angeles County. Without limiting the generality of the foregoing, NRDC and Waterkeeper request:

- (1) Any and all documents and correspondence between Mary Ann Lutz and interested parties regarding the Draft Permit or terms and provisions of the Draft Permit;
- (2) Any and all documents and correspondence between Mary Ann Lutz and interested parties discussing NPDES or MS4 permits;
- (3) Any and all documents and correspondence between Mary Ann Lutz and interested parties discussing the regulation of municipal stormwater and/or urban runoff;
- (4) Any and all correspondence between Mary Ann Lutz and interested parties discussing stormwater or urban runoff in Los Angeles County; and
- (5) Any and all correspondence between Mary Ann Lutz and interested parties discussing the Clean Water Act or California Porter Cologne Act as they relate to stormwater or urban runoff.

Government Code section 6252 (e) and (g) broadly define the records and writings to be disclosed under the Public Records Act. Without limiting those records, but solely for the purpose of illustrating the types of records we would expect to be in the custody of Regional Board relating to the communications, these include letters, facsimiles, electronic correspondence (including e-mail in any form), and notes, minutes, and transcripts of conferences, meetings, telephone or other communications regardless of the manner in which the record has been stored.

The Public Records Act requires that the Regional Board respond to this request within ten (10) days. (Cal. Gov't Code § 6253(c).) Please provide an estimate of the duplication and delivery costs prior to copying any materials. As non-profit public interest groups, however, NRDC and Waterkeeper respectfully request that any fees applicable to this request be waived. NRDC and Waterkeeper staff are willing and able to copy the requested records at the Regional Board's office; however, if you prefer, the requested materials may be provided electronically by email to <u>ngarrison@nrdc.org</u> and <u>liz@lawaterkeeper.org</u>. Finally, if you anticipate encountering any practical difficulties in fulfilling this request, NRDC and Waterkeeper would request a meeting pursuant to Government Code section 6253.1, which requires Regional Board to "provide suggestions for overcoming any practical basis for denying access to the records or information sought."

Ms. Laura Gallardo RWQCB Los Angeles Region August 23, 2012 Page | 3

Thank you in advance for your attention to this request. Please contact Noah Garrison at (310) 434-2300 if you have any questions or concerns.

Sincerely,

Noah Garrison Project Attorney Natural Resources Defense Council

Liz Crosson Executive Director Los Angeles Waterkeeper