

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
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FACT SHEET

SUPPORTING AMENDMENTS TO THE LOS ANGELES COUNTY
MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT
(ORDER NO. 01-182; NPDES PERMIT NO. CAS004001) TO
INCORPORATE WASTE LOAD
ALLOCATIONS FOR TRASH PURSUANT TO THE
LOS ANGELES RIVER WATERSHED TRASH TMDL

Table of Contents

Summary of Proposed Action	Error! Bookmark not defined.
Background: Summary of Impairments and TMDL Elements	5
Statutory History and Requirements	10
State Regulatory Authority	14
Current Status and Basis for Action	19
Alternatives Considered	23
Recommended Action	26
Opportunity for Public Comment	27
References	28

Introduction

The Los Angeles Regional Water Quality Control Board (Regional Board) staff proposes a limited reopening of the LA County Municipal Separate Storm Sewer System (MS4) Permit to incorporate the Los Angeles River Watershed Trash Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) and associated provisions for discharges from the MS4 to the Los Angeles River and its tributaries as required by federal regulation and state law.¹

Summary of LA River Trash TMDL

The LA River Trash TMDL was established to address the documented impairments in the Los Angeles River Watershed due to trash that were identified on the State's Clean Water Act Section 303(d) List of impaired waters, and to ultimately achieve the narrative water quality objectives contained in the Basin Plan for both "Floating Material" and "Solid, Suspended, or Settleable Materials" that require:

"Waters shall not contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses"; and

"Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses."

The TMDL requires progressive annual reductions in discharges of trash from the MS4 from an established baseline for each permittee identified as a responsible jurisdiction in the TMDL, until the final numeric target of zero trash discharge is attained. The compliance deadlines for the interim waste load allocations are at the end of each storm period (October 1 to September 30). Compliance with the final waste load allocations is required by September 30, 2016. The proposed permit modifications rely upon the translation of Basin Plan Tables 7-2.2 into

¹ Tributaries to the Los Angeles River include but are not limited to Pacoima Wash, Tujunga Wash, Burbank Western Channel, Verdugo Wash, Arroyo Seco, the Rio Hondo, and Compton Creek.

jurisdiction-specific waste load allocations (see Appendix-1 hereto). Appendix 1 has been translated into effluent limitations contained in Appendix 7-1 of the permit by calculating the corresponding three-year rolling average.

TMDL History

The Los Angeles River Trash TMDL was initially adopted by the Regional Board on September 19, 2001. Twenty-two cities² (“Cities”) sued the Regional Board and State Board to set aside the TMDL, stopping progress towards halting the thousands of tons of garbage that is discharged to the Los Angeles River and its tributaries. The trial court entered an order deciding some claims in favor of the Regional Board and State Board and some in favor of the Cities. Both sides appealed, and on January 26, 2006, the Court of Appeal decided every one of the Cities’ claims in favor of the Boards, except with respect to CEQA compliance (*City of Arcadia et al. v. Los Angeles Regional Water Quality Control Board et al.* (2006) 135 Cal.App.4th 1392).³

The Court of Appeal rejected the following claims litigated by the Cities:

- a. The Court rejected the Cities’ claim that the target of zero trash is unattainable and inordinately expensive. (135 Cal.App.4th at 1413 and 1427-1430.)
- b. The Court rejected the Cities’ claim that an assimilative capacity study was required before the Boards could determine how much trash, a pollutant that does not assimilate, would violate the narrative objectives. (135 Cal.App.4th at 1409-1413.)

² The cities include Arcadia, Baldwin Park, Bellflower, Cerritos, Commerce, Diamond Bar, Downey, Irwindale, Lawndale, Monrovia, Montebello, Monterey Park, Pico Rivera, Rosemead, San Gabriel, Santa Fe Springs, Sierra Madre, Signal Hill, South Pasadena, Vernon, West Covina, and Whittier.

³ The Cities filed a petition for review by the California Supreme Court, but on April 19, 2006, the Supreme Court declined to hear any of the Cities’ claims.

- c. The Court rejected the Cities' claim that the Boards were required, but failed, to conduct a cost/benefit analysis and consideration of economic factors. (135 Cal.App.4th at 1415-1418.)
- d. The Court rejected the Cities' claim that the Boards were prohibited from establishing a TMDL for the Los Angeles River Estuary until it was formally listed on the 303(d) list. (135 Cal.App.4th at 1418-1420.)
- e. The Court rejected the Cities' claims that TMDLs for storm water may not require agencies to perform better than the "maximum extent practicable", and must allow compliance through best management practices. (135 Cal.App.4th at 1427-1430.)
- f. The Court rejected the Cities' claim that the Boards were required to implement load allocations for nonpoint sources of trash pollution. (135 Cal.App.4th at 1430-1432.)
- g. The Court rejected the Cities' claim that the Boards failed to adhere to the data collection and analysis required by federal and state law (135 Cal.App.4th at 1433-34.)
- h. The Court rejected the Cities' claim that the Boards relied on nonexistent, illegal, and irrational uses to be made of the Los Angeles River. (135 Cal.App.4th at 1432-33.)
- i. The Court rejected the Cities' claim that the Boards violated the Administrative Procedures Act (APA). (135 Cal.App.4th at 1434-35.)

The Court did find, however, that the Boards did not adequately complete the environmental checklist, and that evidence of a "fair argument" of significant impacts existed such that the Boards should have performed an EIR level of analysis. (135 Cal.App.4th at 1420-26.) The Court therefore declared the Trash TMDL void, and issued a writ of mandate that ordered the Boards to

set aside and not implement the TMDL, until it has been brought into compliance with California Environmental Quality Act.

As a result of the appellate court's decision, in 2006 the Regional Board set aside its 2001 action incorporating the TMDL into the Basin Plan (Resolution R06-013) (*City of Arcadia et al. v. Los Angeles Regional Water Quality Control Board et al.* (2006) 135 Cal.App.4th 1392). After conducting the required CEQA analysis, the Regional Board readopted the Los Angeles River Watershed Trash TMDL on August 9, 2007 (Resolution No. 2007-0012).⁴ This TMDL was subsequently approved by the State Water Resources Control Board (Resolution No. 2008-0024), the Office of Administrative Law (File No. 2008-0519-02 S), and the United States Environmental Protection Agency, and became effective on September 23, 2008.

Summary of Proposed Action The Regional Board proposes to incorporate the interim and final WLAs, expressed as annual reductions in discharges of trash from individual jurisdictional areas within the Los Angeles River Watershed, into the LA County MS4 Permit. Additionally, the Regional Board proposes to incorporate provisions that specify alternative means of determining compliance with the interim and final WLAs. These include:

- (i) a technology based approach whereby BMPs meeting the design standard of "full capture" may be properly installed and maintained to demonstrate compliance with the WLAs,
- (ii) a numeric effluent limitation based approach whereby "partial capture" BMPs and institutional controls not meeting the design standard of "full capture" may be implemented in drainage areas, in which case

⁴ The Regional Board first adopted the Los Angeles River Trash TMDL in September 2001 (Resolution R01-013). As a result of a court decision, in 2006 the Regional Board set aside its 2001 action incorporating the TMDL into the Basin Plan (Resolution R06-013) (*City of Arcadia et al. v. Los Angeles Regional Water Quality Control Board et al.* (2006) 135 Cal.App.4th 1392). In 2007, the Regional Board readopted the TMDL with the revised CEQA analysis ordered by the court (Resolution R07-012).

compliance with the WLA shall be demonstrated by measuring actual reductions in trash discharges in these areas.

Either or both approaches may be used within a jurisdictional area.

The incorporation of the interim and final WLAs established in the TMDL is consistent with the iterative process of implementing BMPs employed in the current LA County MS4 Permit in that compliance with the final WLAs may be achieved over the course of nine years. However, because the waterbodies in the Los Angeles River Watershed are impaired due to trash discharges from the MS4, it is necessary to establish more specific provisions in order to (i) ensure measurable reductions in trash discharges resulting in progressive water quality improvements during the iterative process and (ii) establish a final date for completing implementation of BMPs and, ultimately, achieving WLAs and water quality standards.

The Los Angeles River Watershed Trash TMDL was lawfully adopted as an amendment to the Los Angeles Region's Basin Plan and required compliance with interim WLAs as of September 30, 2008. Most Basin Plan provisions, including TMDLs adopted as amendments to the Basin Plan, are not self-implementing. Therefore, this limited re-opener of the MS4 Permit to incorporate the WLAs allows the implementation and enforcement of these WLAs as required by federal and state laws and regulations.

Background: Summary of Impairments and TMDL Elements

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.

Trash is a serious and pervasive water quality problem in the Los Angeles River Watershed. The Regional 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 the river. Regional Board staff regularly observes trash in the waterways of the Los Angeles River Watershed. 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. Data on quantities of trash removed from waterways and downstream beaches are provided in the Administrative Record for the Los Angeles River Trash TMDL.

Long Beach collects large amounts of trash at the mouth of the Los Angeles River, as much of the trash carried down the Los Angeles River ends up at the river's mouth in Long Beach. Debris tonnage at the mouth of the Los Angeles River is listed in Table 1.

Table 1. Storm Debris Collection Summary for Long Beach (tons)⁵

Storm Year	First Quarter (July-Sept.)	Second Quarter (Oct.-Dec.)	Third Quarter (Jan.-March)	Fourth Quarter (April-June)	Total
1994-95	436	509	3,576	702	5,224
1995-96	504	344	3,100	645	4,593

⁵ City of Long Beach *L.A. River Debris Summary* (as of June 2006).

Storm Year	First Quarter (July-Sept.)	Second Quarter (Oct.-Dec.)	Third Quarter (Jan.-March)	Fourth Quarter (April-June)	Total
1996-97	350	2,361	601	681	3,993
1997-98	647	3,650	4,016	977	9,290
1998-99	565	720	532	1,274	3,091
1999-00	781	176	1,664	1,223	3,844
2000-01	757	581	2,625	474	4,437
2001-02	424	739	288	407	1,858
2002-03	430	752	2,564	884	4,630
2003-04	299	779	607	951	2,636
2004-05	273	4,390	6,176	1,416	12,255
2005-06	561	495	862	670	2,591

Trash discharged to waterbodies discourages recreational activity, degrades aquatic habitat, threatens wildlife through ingestion and entanglement, and also poses risks to human health. Existing beneficial uses impaired by trash in the Los Angeles River are contact recreation (REC-1) and non-contact recreation (REC-2); warm fresh water habitat (WARM); wildlife habitat (WILD); estuarine habitat (EST) and marine habitat (MAR); rare, threatened or endangered species (RARE); migration of aquatic organisms (MIGR) and spawning, reproduction and early development of fish (SPWN); commercial and sport fishing (COMM); wetland habitat (WET); and cold freshwater habitat (COLD).

The Regional Board adopted a trash TMDL for the Los Angeles River Watershed to eliminate the documented water quality impairment resulting from significant amounts of trash discharged to the Los Angeles River and its tributaries, and by doing so to restore the beneficial uses of the river. The TMDL establishes a numeric target of zero discharge of trash, and identifies discharges from the MS4 as the major source of trash to the Los Angeles River and its tributaries.

To achieve the numeric target of zero discharge of trash, the TMDL sets interim and final wasteload allocations (WLAs) for trash discharges in the Los Angeles River Watershed, expressed as progressive annual percentage reductions from a predetermined baseline WLA assigned to each responsible jurisdiction, until the final waste load allocation of zero discharge is allocated in 2014. The TMDL allows for compliance with these annual percentage reductions to be determined based on a two-year rolling average of the interim waste load allocations in the second year of implementation, and based on a three-year rolling average in subsequent years, resulting in a final compliance date of 2016.

Co-permittees under the LA County MS4 Permit that are identified as responsible jurisdictions in the Los Angeles River Trash TMDL include the County of Los Angeles, the County of Los Angeles Flood Control District, and the Cities of Alhambra, Arcadia, Bell, Bell Gardens, Bradbury, Burbank, Calabasas, Carson, Commerce, Compton, Cudahy, Downey, Duarte, El Monte Glendale, Hidden Hills, Huntington Park, Irwindale, La Cañada Flintridge, Los Angeles, Lynwood, Maywood, Monrovia, Montebello, Monterey Park, Paramount, Pasadena, Pico Rivera, Rosemead, San Fernando, San Gabriel, San Marino, Santa Clarita, Sierra Madre, Signal Hill, Simi Valley, South El Monte, South Gate, South Pasadena, Temple City, and Vernon. The City of Long Beach and the California Department of Transportation (Caltrans) are also identified as responsible jurisdictions in the trash TMDL, but their MS4 discharges are regulated under separate permits.⁶

⁶ The City of Long Beach's MS4 permit (NPDES No. CAS004003) will be re-opened at a later date to include the trash TMDL provisions. A statewide permit (NPDES No. CAS000003) issued by the State Board covers MS4 discharges from areas under the jurisdiction of Caltrans. This permit will be renewed in the near future. The Regional Board will notify the State Board of the need to incorporate all TMDL WLAs in the Los Angeles Region that apply to Caltrans along with the provisions necessary to ensure compliance. Notwithstanding, the Storm Water Monitoring Plan for Caltrans District 7 already contains implementation measures for the purpose of complying with the trash TMDL requirements.

The Los Angeles River Trash TMDL specifies under “Implementation” that the WLAs will be implemented through MS4 permits. TMDLs are not self-executing, but instead rely upon further orders or actions to adjust pollutant restrictions on individual dischargers. Federal regulations require that NPDES permits must be consistent with the assumptions and requirements of any available waste load allocation (40 CFR 122.44(d)). Similarly, state law requires both that the Regional 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...” (Wat. Code §§ 13263, 13377).

Statutory History and Requirements

Clean Water Act Section 303(d): Impaired Waters and TMDLs

The CWA §303(d)(1)(A) requires each State to conduct a biennial assessment of its waters, and identify those waters for which technology based effluent limitations are not stringent enough to implement water quality standards. These waters are identified as impaired waters on the State's 303(d) list of water quality limited segments. The CWA also requires States to establish a priority ranking for waters on the 303(d) list and to develop and implement TMDLs for these waters.

“A TMDL defines the specified maximum amount of a pollutant which can be discharged or ‘loaded’ into [impaired waters] from all combined sources” and still allow the waterbody to meet water quality standards (*Dioxin/Organochlorine Center v. Clarke* (9th Cir. 1995) 57 F.3d 1517, 1520). A TMDL allocates the acceptable pollutant load to point and nonpoint sources. The elements of a TMDL are described in 40 CFR 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).

Upon establishment of TMDLs by the State or the U.S. EPA, the State is required to incorporate the TMDLs into the State Water Quality Management Plan (40 CFR 130.6 (c) (1), 130.7). The Water Quality Control Plan for the Los Angeles Region (Basin Plan), and applicable statewide plans, serves as the State Water Quality Management Plan governing the watersheds under the jurisdiction of the Regional Board. When adopting TMDLs as a part of its Basin Plan, the Regional Board includes, as part of the TMDL, a program for implementation of the wasteload allocations for point sources and load allocations for nonpoint sources.

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.

Clean Water Act Section 402(p): NPDES Permits for MS4s

The federal Clean Water Act (CWA) generally prohibits the “discharge of any pollutant,” 33 U.S.C. § 1311(a), from a “point source” into waters of the United States. 33 U.S.C. § 1362(12)(A). An entity can, however, obtain a National Pollutant Discharge Elimination System (NPDES) permit that allows conditionally for the discharge of some pollutants. 33 U.S.C. § 1342(a)(1). The CWA defines point sources as “discernible, confined and discrete conveyances, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure” such as a pipe, ditch, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. 33 U.S.C. § 1362; 40 CFR 122.2.

In 1987, the U.S. Congress enacted the Water Quality Act recognizing both the environmental threats posed by storm water runoff and the U.S. EPA’s problems in implementing regulations for storm water discharges (NRDC II, 966 F.2d at 1296). These Amendments to the CWA established new statutory requirements to control industrial and municipal storm water discharges to waters of the United States (CWA § 402(p).) The amendments require NPDES permits for storm water discharges from Municipal Separate Storm Sewer Systems (MS4s) to waters of the United States, and classify MS4s as a “point source”.

The NPDES permits for MS4s (i) may be issued on a system- or jurisdiction-wide basis; (ii) shall include a requirement to effectively prohibit [unauthorized] non-storm water discharges into the storm sewers; and (iii) shall require controls to reduce the discharge of pollutants from storm water to the maximum extent

practicable (MEP), including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. (See CWA §402(p)(3)(B).)

On November 16, 1990, pursuant to CWA § 402(p), the U.S. EPA promulgated regulations at 40 CFR 122.26 which established requirements for MS4 discharges under the NPDES program.

Generally, discharges of pollutants that are covered under a NPDES permit must comply with (i) effluent limitations necessary to achieve compliance with technology based standards **as well as** (ii) **any more stringent effluent limitation “necessary to meet water quality standards”** (emphasis added) (33 U.S.C. § 1311(b)(1)(C)). In the case of MS4 NPDES discharge permits, federal courts have ruled that the CWA grants the permitting agency discretion to determine what pollutant controls are appropriate for discharges from MS4s. The federal courts held that the permitting agency has discretionary authority under “33 U.S.C. § 1342(p)(2)(E) to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants, or to require less than strict compliance with state water-quality standards, such as a BMP approach” (*Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir., 1999)). Under 33 U.S.C. § 1342(p)(3)(B)(iii), the permitting authority has the choice to include either best management practices or numeric effluent limitations in the permits. *NRDC II*, 966 F.2d at 1308 (“Congress did not mandate a minimum standards approach or specify that [the] EPA develop minimal performance requirements.”).

Even early in the regulatory program for MS4s, the U.S. EPA stated that if the Permittee(s) fails to implement adequate BMPs to prevent exceedance of the receiving water objectives, the permitting authority “may have to consider other

approaches to water quality protection” (61 Fed. Reg. 43761; *Interim Permitting Approach*, Response #6, EPA 833-D-96-00, 1996; Order WQ 91-03).

State Regulatory Authority

In California, trash that is discharged to waterbodies is regulated by Regional Boards through their Basin Plans. In the Basin Plans, trash is identified as both a “floatable material” and a “solid, suspended or settleable material.” The Basin Plans establish narrative water quality objectives for both, stating in general terms that *waters shall not contain these materials in concentrations that cause nuisance or adversely affect beneficial uses*. These narrative objectives are consistent with water quality criteria recommended under CWA section 304(a) by the U.S. EPA (1986).

The Regional Boards implement these narrative objectives for trash through a variety of mechanisms depending upon the primary source of the trash discharges. Until recently, attempts were made to implement these narrative objectives for trash primarily through standard provisions in NPDES permits for discharges from MS4s (discussed below). Where an individual waterbody is identified as impaired due to trash, *additional* regulatory requirements are established in a TMDL and incorporated into the Basin Plan, as described earlier.

The State of California is one of forty-five States that have been granted authority under the CWA to implement the NPDES permitting program in lieu of US EPA. The Porter-Cologne Act (California Water Code) authorizes the State Board, through the nine regional boards, to issue NPDES permits, and regulate and control the discharge of pollutants into waters of the State. Regional Board-issued NPDES permits must contain provisions consistent with the State Water Quality Management Plan (Wat. Code § 13263).

Related State Administrative Actions

The State Board has affirmed that NPDES MS4 permits must prohibit discharges that cause or contribute to violations of water quality standards contained in Basin Plans or Statewide Water Quality Control Plans (See WQ 98-01, at p. 8).

In 1999, the State Board issued standard receiving water limitations language to be included in municipal storm water permits across the State consistent with this affirmation (Order WQO 99-05, which amended Order WQO 98-01).

The State Water Board had ruled earlier that municipal storm water permits must include effluent limitations necessary to achieve water quality standards (State Board Orders WQ 91-03 and WQ 91-04)⁷. The State Board concluded that these may be non-numerical, but also pointed out that if the Permittee(s) fails to implement adequate BMPs to prevent exceedance of the receiving water objectives, the regional boards may have to consider other approaches to water quality protection (Order WQ 91-03).

Later, the State Board in Order WQ 2001-15 stated that “where urban runoff is causing or contributing to exceedances of water quality standards, it is appropriate to require improvements to BMPs that address those exceedances” (Order WQ 2001-15, p. 8). Recently, the State Board concluded that the regional boards should determine the most appropriate approach to implementing WLAs for MS4 discharges in the form of **either numeric or non-numeric** effluent limitations and should support their determination in the permit findings (Order WQ 2009-0008).

LA County MS4 Permit History

To comply with the CWA, the Regional Board issued the first storm water permit (“predecessor permit”) on June 18, 1990, to the municipalities (Permittees) in Los Angeles County (Order No. 90-079; NPDES Permit No. CA0061654).

⁷ In Order WQ 91-04, the State Board reviewed a complaint brought by the environmental community that the 1990 LA County MS4 Permit lacked numerical effluent limits and violated federal law.

The LA County MS4 Permit was reissued in 1996, and the current iteration of the permit was adopted on December 13, 2001 (Order No. 01-182; NPDES Permit No. CAS004001). The LA County MS4 Permit (Order No. 01-182) was amended by Order No. R4-2006-0074 on September 14, 2006. Another amendment to the Los Angeles County MS4 permit was made on August 9, 2007 by Order No. R4-2007-0042. Currently, Order No. 01-182 as amended by Order R4-2007-0042 is the Los Angeles County MS4 permit in effect.

Because of the complexity and networking of the municipal separate storm sewer system and drainage facilities within and tributary to the County of Los Angeles, the Regional Board adopted a countywide approach in permitting discharges from the MS4. The permit requires Permittees to implement timely and comprehensive programs in the areas of public involvement and participation, industrial/commercial inspection, development planning, development construction, public agency activities, and to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP) from the permitted areas in the County of Los Angeles to the waters of the U.S. In addition, it states that discharges from the MS4 to waters of the U.S., including Los Angeles River and its tributaries, may not cause or contribute to exceedances of water quality objectives.

Regulatory Scheme for Control of Trash Discharges

Consistent with U.S. EPA expectations, the trash control requirements in the first municipal stormwater permit were general and included documenting existing best management practices (BMPs), designing a stormwater monitoring program, and developing plans to optimize existing BMPs and implement additional BMPs. With each subsequent permit, there has been an increasing level of specificity in requirements to control trash, as shown in Table 2.

Table 2. Evolution of Permit Requirements for Control of Trash Discharges

Requirements	Early Permits (Pre-TMDL)	2nd Generation Permits (Pre-TMDL)	Recent Permits
Catch Basin (CB) Prioritization	None	None	Based on trash generation
CB Cleanout Frequency	1x during summer season	1x prior to storm season	1-4x per year based on prioritization
Additional CB Cleanouts	As necessary	When 40% full	When 25% full
Other CB Requirements	None	None	Trash excluders or equivalent at high priority CBs
Street Sweeping Prioritization	None	None	Based on trash generation
Street Sweeping Frequency	1x per month; where feasible, more frequently in high trash areas	Based on traffic volume	Based on trash generation
Open Channel Maintenance	1x per year prior to storm season	1x per year prior to storm season	1x per year prior to storm season
Parking Lot Sweeping	1x per month	1x per month	2x per month
TMDL requirements for impaired waterbodies	None	None	Yes

This evolution in requirements is linked to the identification of waterbodies as impaired due to trash. The “second generation” municipal stormwater permits, which were developed around the same time as the first determination of trash impairments, reflected an increase in specificity beyond what was done in the earlier stormwater permits. Those developed later, in conjunction with the first trash TMDLs, have been further refined in terms of their requirements to control discharges of trash.

The current LA County MS4 permit contains standard provisions for controlling trash discharges from the storm drain system, including but not limited to:

- Public Information and Participation Program (PIPP) in Part 4.B, including requirements for pollutant-specific outreach on trash in the Los Angeles River Watershed beginning in February 2003;
- Industrial/Commercial Facilities Control Program in Part 4.C, including requirements for permittees to (i) inspect critical sources and (ii) require operators to implement additional controls to reduce pollutants in runoff to CWA section 303(d) impaired waters; and
- Public Agency Activities Program in Part 4.F, including requirements for storm drain operation and management, streets and roads maintenance, and parking facilities management.

In drainage areas subject to the Los Angeles River Trash TMDL, the current permit requires permittees to continue the implementation of specified catch basin inspections and cleaning until trash TMDL implementation measures are adopted. Additionally, for any special event that can be reasonably expected to generate substantial quantities of trash and litter, permittees are still required to properly manage trash and litter generated, as a condition of the special use permit issued for that event. At a minimum, the municipality who issues the permit for the special event shall arrange for either temporary screens to be placed on catch basins or for catch basins in that area to be cleaned out subsequent to the event and prior to any rain event.

Permittees were required to place trash receptacles at all transit stops within their jurisdiction that have shelters by August 1, 2002, and at all other transit stops within their jurisdiction by February 3, 2003. Permittees are required to maintain all trash receptacles as necessary. The Principal Permittee, in cooperation with Permittees, is also required to continue coordinating outreach programs that focus on trash in the Los Angeles River.

Current Status and Basis for Action

While the Los Angeles County Department of Public Works reported a "30% decrease in roadway trash on unincorporated County roads and a 50% decrease in trash entering catchbasins since adoption of the current National Pollutant Discharge Elimination System (NPDES) Permit"⁸, these standard provisions described above have not adequately controlled trash discharges to the Los Angeles River. As a result, trash in the Los Angeles River continues to be a serious problem, causing continued impairments to recreational and aquatic life beneficial uses of the river.

Nineteen years have passed since adoption of the first MS4 permit for Los Angeles County, while eight years have passed since adoption of the current MS4 permit. There has been ample time for Permittees to implement the standard provisions of the permit to control trash discharges to the Los Angeles River and to apply the iterative approach set forth in the Part I.B. of the 2001 Permit in order to address the trash impairments in the Los Angeles River watershed. Yet, water quality impairments due to trash discharges from the MS4 to the Los Angeles River and its tributaries remain a serious public health and environmental problem.

Additionally, over the last 19 years, much has been learned about the nature of urban runoff and stormwater and BMP performance, both nationally and regionally. During the early years of the stormwater regulatory program, the State Board recognized that a prudent approach was one that implemented BMPs to reduce sources and control pollutants from MS4 and continued to collect monitoring data on the characteristics of urban runoff and stormwater (Order WQ 91-03). However, with extensive data on the characteristics of stormwater and BMP performance, numeric effluent limitations for discharges of trash have

⁸Comment letter from County of Los Angeles, Department of Public Works, May 15, 2000, p. 1.

become feasible since it is possible to determine a BMP equivalent of the numeric target.⁹

As noted above, the TMDL requires progressive annual reductions in the amount of trash that may be discharged from a jurisdiction in the watershed. Section 122.44(d)(1)(vii)(B) requires that NPDES permits include conditions that are “consistent with the assumptions and requirements” of available waste load allocations. Therefore, Staff reviewed the structure of the WLAs and the requirements of the Trash TMDL before crafting the proposal for incorporation. Based on the TMDL and the manner in which the waste load allocations are expressed, staff concluded that the most obvious and logical manner of incorporating the Trash WLAs would involve the adoption of conditions in the permit that require annual reductions in the amount of trash that may be discharged by each jurisdiction. By definition the specification of a limit on the quantity of a pollutant that may be discharged from a specific location is in fact a numerically expressed “effluent limitation”, as that term is defined in Water Code section 13385.1. While a variety of mechanisms might be considered to maneuver around the result, staff considers that the effect of any of those efforts would be to essentially water down the salient provisions of the TMDL to render them less- or unenforceable, beyond the current receiving water limitations and iterative approach that has not achieved compliance with water quality standards. Staff also considers the vast resources the Regional Board has devoted to this particular TMDL over the last 8 years with the intent of finally signaling the start to the end of the significant trash water quality problems that have been unresolved since the 1998 placement of the Los Angeles River on the 303(d) list.

In view of the above, Regional Board staff concludes that it is necessary and feasible to include the interim and final WLAs contained in the Los Angeles River Watershed Trash TMDL into the permit as numeric effluent limitations to ensure

⁹ For example, installation of full capture BMPs in forty percent of a responsible jurisdiction’s drainage area translates to a forty-percent reduction in the pre-assigned baseline waste load allocations. Since the

timely and measurable reductions in trash discharges to eliminate the existing water quality impairment. This is consistent with the recent State Board Order that concluded that, “whether a future municipal storm water permit requirement appropriately implements a storm water wasteload allocation will need to be decided based on the regional water quality control board’s findings supporting either the numeric or non-numeric effluent limitations contained in the permit” (Order WQ 2009-0008).

Potential Options for Trash WLA Compliance

The Regional Board has determined that these WLAs may be achieved in several ways. Compliance approaches for the trash TMDLs can be broadly classified into the “full capture” approach, “institutional controls,” and the “partial capture” approach. These approaches can be applied individually or in combination throughout the watershed to meet TMDL requirements.

The full capture approach involves the installation of “full-capture¹⁰” trash control systems in drainage areas of the affected watershed. All drainage areas where such an approach is employed are considered to be in compliance with the zero numeric target. This means that no further implementation actions are necessary, provided the system or device is appropriately sized for the subwatershed in which it is implemented and that it is properly maintained. This approach is consistent with the traditional storm water approach where dischargers are authorized to rely upon the use of best management practices. Full capture systems are specific structural best management practices that have been determined to meet the requirements of the TMDL. The use of such systems obviates the obligation on the part of the permittee to determine the actual amount of trash loading that the permittee may be causing, as compliance with

waste load allocations are assigned as percent reductions, they can be directly translated from BMP implementation.

¹⁰ For the purpose of the trash TMDLs, a full capture device is defined as “any single device or series of devices that traps all particles retained by a 5mm mesh screen with a design treatment capacity of \geq the peak flow rate resulting from a one-year, one-hour storm in the sub-drainage area.”

the effluent limitations is determined by the fact of the installation and maintenance of the systems, not by the actual effluent quality.

Institutional controls are trash control measures taken by jurisdictional agencies that do not require any construction or installations. These are more typically referred to as “non-structural best management practices.” Examples include street sweeping, public education, and clean out of catch basins that discharge to storm drains. Since the efficacy of institutional controls cannot be accurately assessed with an measure of certainty, where compliance with the effluent limitations relies upon institutional controls it must be determined by a method that assesses the trash discharges and reductions that are actually occurring in the watershed. The TMDL specifies that this may be achieved by comparing the allowable discharge against the total estimated discharge of trash from storm events, using a mass-based equation.¹¹ Compliance is deemed to have been attained when the estimated discharge is equal to or less than the allowable load.

The partial capture approach involves the use of other structural trash control devices (best management practices) that do not meet the “full-capture” performance requirements. For the partial capture approach, the degree of compliance with the zero target is determined by the demonstrated performance of the devices in question. Alternatively, where a device’s performance is not known, compliance can be determined in the same manner as that used for institutional controls.

¹¹ The discharge is estimated using a mass balance equation. Discharge = [DGR x Days since last street sweeping] - [trash obtained from catch basin cleanouts]. The DGR (daily generation rate) is the average amount of trash deposited within a specified drainage area over a 24-hour period. Annual re-calculation of the DGR is intended to serve as a measure of the effectiveness of institutional controls or source reduction measures.

Alternatives Considered

The Regional Board staff considered the following alternatives for making enforceable the Los Angeles River Trash TMDL WLAs.

a. No Action Option – Given the limited scope of the action, which is to progressively reduce the discharge of trash from the MS4 to the Los Angeles River and its tributaries, and the costs associated with non-action or non-enforcement of the Los Angeles River Trash WLAs, the proposed action is reasonable and necessary. Furthermore, the Los Angeles River Trash TMDL required compliance with the interim WLAs beginning in September 2008. The Regional Board is obligated by federal regulation (40 CFR 122.44(d)) to ensure that NPDES permits are consistent with the assumptions and requirements of any available waste load allocation and by state law to ensure that the provisions of the Basin Plan, including TMDLs, are implemented in waste discharge requirements (WDRs) (Wat. Code § 13263). Failing to incorporate the waste load allocations into the permit at this time would be contrary to the federal goal of making surface waters ‘fishable and swimmable’ and the legislative intent of the Porter-Cologne Water Quality Control Act to attain the highest water quality that is reasonable.

b. MS4 Storm Water Quality Management Program (SQMP) – An MS4 Storm Water Permittee’s SQMP is its primary documentation for utilizing the iterative adaptive approach using BMPs or other methods to manage the quality of storm water discharges in order to comply with receiving water limitations. MS4 Permittees in the Los Angeles River Watershed have had more than a decade and a half to effectively implement provisions of the permit to control trash discharges. The fact that discharges of trash to the Los Angeles River and its tributaries still cause or contribute to exceedances of water quality standards and impair beneficial uses, and that the Los Angeles River was first listed as impaired for trash on the 1998 303(d) list, that the Regional Board originally adopted WLAs for trash discharges in 2001, and re-adopted WLAs for trash discharges in

2007, demonstrates the need for greater action and strict enforcement of the WLAs. Permittees have not consistently submitted Receiving Water Limits Compliance Reports as required by the permit when there has been a determination of a violation of receiving water limitations (e.g., reported exceedances at permit monitoring stations), despite recurring exceedances of water quality standards. As noted earlier, few Permittees have documented revisions to the SQMP to address chronic exceedances of water quality standards. The existing iterative approach in the permit, which lacks enforceable milestones, would be inconsistent with the provisions and intent of the TMDL. Therefore this approach, which allows iterative yet enforceable compliance over a specific period of time is more appropriate

c. Incorporate TMDL Provisions at Permit Reissuance – Waiting until permit reissuance would prevent full implementation of the TMDL’s regulatory requirements for several years after compliance is required. Therefore, the Regional Board is reopening the existing permit during its administrative extension, instead of reissuing the permit at this time.

d. (Proposed Alternative) Limited Reopener to Incorporate WLAs as Numeric Effluent Limitations with Alternative Compliance Approaches – Federal regulation requires that NPDES permits must be consistent with the assumptions and requirements of any available waste load allocation (40 CFR 122.44(d)(1)(vii)(B)). State law requires both that the Regional 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...” (Wat. Code §§ 13263, 13377). The Ninth Circuit Court of Appeals in *Defenders of Wildlife v. Browner* ruled that the Clean Water Act grants the permitting agency discretion either to require “strict compliance” with water quality standards through the imposition of numeric effluent limitations, or to employ an iterative approach toward compliance with water quality standards, by requiring improved BMPs over time (*Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159). In a precedential decision, the State Board acknowledged that the holding in *Browner*

allows the issuance of MS4 permits that limit their provisions to BMPs that control pollutants to the MEP, and which do not require compliance with water quality standards. However, the State Board has concluded and the Regional Board agrees that “where urban runoff is causing or contributing to exceedances of water quality standards, it is appropriate to require improvements to BMPs that address those exceedances” (Order WQ 2001-15, p. 8). In a recent decision, the State Board concluded that TMDLs should not be academic exercises, should be given substantive effect, and the regional boards should determine the most appropriate approach to implementing WLAs for MS4 discharges in the form of either numeric or non-numeric effluent limitations and should support their determination in the permit findings (Order WQ 2009-0008).

Regional Board staff concludes that in the case of the Trash TMDL, given its history, the resources devoted to its establishment, the continuing nature of the impairment, and the structure of the TMDL’s waste load allocations, it is appropriate to establish effluent limitations that will result in measurable reductions in the pollutants discharged from the MS4 to receiving waters within a specified time frame, consistent with the TMDL’s WLAs and implementation schedule.

Recommended Action

Staff recommends (d.) reopening the LA County MS4 permit in a limited manner to make modifications, including a new section, Part 7. Total Maximum Daily Load Provisions, to incorporate the Los Angeles River Trash WLAs, and revisions to Parts 4.F.5(b) (Standard Provisions) and 5 (Definitions). The changes are the addition of waste load allocations, for responsible jurisdictions identified in the Los Angeles River Watershed Trash TMDL, to achieve a progressive reduction in trash discharges from the MS4 to the Los Angeles River and its tributaries. Compliance with these WLA will address the impairment of beneficial uses that occurs as a result of these discharges.

The proposed modifications herein contain more specific requirements in the form of measurable interim and final effluent limitations to eliminate discharges of trash from the MS4 to the Los Angeles River and its tributaries in order to achieve water quality standards. This Order incorporates applicable WLAs that have been adopted by the Regional Board and have been approved by the State Board, Office of Administrative Law and the U.S. EPA. The conditions that implement the TMDL WLAs in the Order are expressed as effluent limitations in a manner consistent with the assumptions and requirements of the TMDL from which they are derived.

The re-opener provisions in Part 6.I.1 identify the authority and procedures for the Board to modify the permit. The proposed consideration by the Regional Board to incorporate the Los Angeles River Trash TMDL interim and final TMDL WLAs complies with these provisions and, specifically, with subparagraph (b) “to incorporate ... amendments to the Basin Plan”. Per 40 CFR 122.62(a)(7) the Regional Board may reopen a permit when required by the “reopener” conditions in a permit.

Opportunity for Public Comment

Regional Board staff held a workshop on July 29, 2009, to inform Permittees and other interested persons how the Los Angeles River Trash TMDL will be incorporated into the LA MS4 Order. Comments were solicited during this workshop and up to two weeks following. These comments were considered by staff in formulating the draft permit modifications. Responses to these comments and comments received on the draft provisions, findings and fact sheet will be prepared prior to the Board hearing. In addition, the notice of the proposed Regional Board's proceedings to incorporate the Los Angeles River Watershed Trash TMDL's WLAs into the Los Angeles County MS4 Permit which was circulated on September 30, 2009, provided a 30-day comment period for interested parties. The Regional Board Hearing on this matter, which is scheduled for December 10, 2009, provides further opportunity for stakeholders to comment.

APPENDIX 1

Table 1a: Los Angeles River Watershed Trash TMDL Waste Load Allocations per Storm Year, expressed as allowable discharge relative to baseline Waste Load Allocations (gallons of uncompressed volume)

Permittee	End of Storm Year – September 30				
	2010 (40%)	2011 (30%)	2012 (20%)	2013 (10%)	2014 (0%)
Alhambra	15961	11971	7981	3990	0
Arcadia	20043	15032	10022	5011	0
Bell	6410	4808	3205	1603	0
Bell Gardens	5400	4050	2700	1350	0
Bradbury	1711	1283	855	428	0
Burbank	37036	27777	18518	9259	0
Calabasas	9002	6752	4501	2251	0
Carson	2733	2050	1366	683	0
Commerce	23493	17620	11747	5873	0
Compton	21276	15957	10638	5319	0
Cudahy	2374	1781	1187	594	0
Downey	15625	11719	7813	3906	0
Duarte	4884	3663	2442	1221	0
El Monte	16883	12662	8442	4221	0
Glendale	56126	42094	28063	14031	0
Hidden Hills	1465	1099	733	366	0
Huntington Park	7664	5748	3832	1916	0
Irwindale	4941	3706	2470	1235	0
La Cañada Flintridge	13398	10049	6699	3350	0
Los Angeles	549938	412454	274969	137485	0
Los Angeles County	124089	93067	62045	31022	0
Lynwood	11280	8460	5640	2820	0
Maywood	2452	1839	1226	613	0
Monrovia	18675	14006	9337	4669	0
Montebello	20148	15111	10074	5037	0
Monterey Park	15560	11670	7780	3890	0
Paramount	10981	8236	5490	2745	0
Pasadena	44799	33599	22400	11200	0
Pico Rivera	5581	4186	2791	1395	0
Rosemead	10922	8192	5461	2731	0
San Fernando	5579	4184	2789	1395	0
San Gabriel	8137	6103	4069	2034	0
San Marino	5756	4317	2878	1439	0
Santa Clarita	360	270	180	90	0
Sierra Madre	4644	3483	2322	1161	0
Signal Hill	3774	2830	1887	943	0
Simi Valley	55	41	27	14	0
South El Monte	6400	4800	3200	1600	0
South Gate	17562	13171	8781	4390	0
South Pasadena	5963	4472	2981	1491	0
Temple City	7029	5272	3514	1757	0
Vernon	18881	14161	9441	4720	0

Table 1b: Los Angeles River Watershed Trash TMDL Waste Load Allocations per Storm Year, expressed as allowable discharge relative to baseline Waste Load Allocations (pounds of drip-dry weight)

Permittee	End of Storm Year – September 30				
	2010 (40%)	2011 (30%)	2012 (20%)	2013 (10%)	2014 (0%)
Alhambra	27504	20628	13752	6876	0
Arcadia	37214	27911	18607	9304	0
Bell	10135	7601	5067	2534	0
Bell Gardens	9348	7011	4674	2337	0
Bradbury	4864	3648	2432	1216	0
Burbank	68156	51117	34078	17039	0
Calabasas	20892	15669	10446	5223	0
Carson	4083	3062	2042	1021	0
Commerce	34192	25644	17096	8548	0
Compton	34542	25907	17271	8636	0
Cudahy	4024	3018	2012	1006	0
Downey	27403	20552	13701	6851	0
Duarte	9475	7106	4737	2369	0
El Monte	27307	20480	13653	6827	0
Glendale	117399	88049	58700	29350	0
Hidden Hills	4328	3246	2164	1082	0
Huntington Park	12372	9279	6186	3093	0
Irwindale	7164	5373	3582	1791	0
La Cañada Flintridge	29499	22124	14749	7375	0
Los Angeles	1029000	771750	514500	257250	0
Los Angeles County	260722	195542	130361	65181	0
Lynwood	18587	13940	9293	4647	0
Maywood	4220	3165	2110	1055	0
Monrovia	40395	30296	20198	10099	0
Montebello	33483	25112	16741	8371	0
Monterey Park	28182	21137	14091	7046	0
Paramount	17796	13347	8898	4449	0
Pasadena	83006	62254	41503	20751	0
Pico Rivera	9020	6765	4510	2255	0
Rosemead	18951	14213	9476	4738	0
San Fernando	9231	6923	4615	2308	0
San Gabriel	14575	10931	7287	3644	0
San Marino	11659	8744	5829	2915	0
Santa Clarita	930	698	465	233	0
Sierra Madre	10077	7558	5038	2519	0
Signal Hill	5688	4266	2844	1422	0
Simi Valley	138	103	69	34	0
South El Monte	9728	7296	4864	2432	0
South Gate	28933	21700	14467	7233	0
South Pasadena	11343	8507	5671	2836	0
Temple City	12728	9546	6364	3182	0
Vernon	26726	20044	13363	6681	0