Item No. 11

July 19, 2013

ERRATA SHEET

CHANGES TO TENTATIVE ORDER NO. R8-2013-0032, NPDES No. CA8000304

Waste Discharge Requirements
for
Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority
Regional Tertiary Treatment Rapid Infiltration and Extraction Facility
San Bernardino County

Based on the July 10, 2013, letter from the Santa Ana Watershed Project Authority (attached), staff recommends the following modifications:

(Language deleted is ~~struck through~~)
(Language added is **bold and shaded)**

1. Order No. R8-2013-0032, page 20 – Delete Special Provision IV.C.2.c.

   ~~c. The Discharger shall conduct a study to reevaluate the Waste Load Allocations for TDS and TIN for discharges from this Facility to determine if they are protective of water quality in the Riverside A Groundwater Management Zone. The study shall be completed by January 1, 2015. By January 1, 2014, the Discharger shall submit a plan and schedule, acceptable to the Regional Water Board's Executive Officer, of the activities needed to complete this task. This task may be conducted in cooperation with the Basin Planning Task Force.~~

2. Order No. R8-2013-0032, Attachment F – Fact Sheet, page 11 - Modify the paragraphs regarding TDS and TIN limits as follows:

   b. TDS and TIN Limits: As noted above, the TDS and TIN limits in this Order are based on waste load allocations (WLAs) that protect the Santa Ana River. It is assumed that the WLAs are also protective of downgradient groundwater management zones (GMZs), including the Riverside-A GMZ. However, recent ambient groundwater data for the Riverside-A GMZ indicates a possible worsening of water quality. It is not known what factors may be contributing to this, or if the data is just reflecting a natural cycle. ~~This Order requires the Discharger to cooperate with and participate in any study undertaken by the Regional Board or t~~**T**he Basin Monitoring Program Task Force**, of which the Discharger is a member, has committed to conduct additional modeling and analysis of Riverside-A GMZ for TDS and TIN impacts as part of the 2008 Santa Ana River Wasteload Allocation Model.** ~~to confirm that~~ **This work will determine if** the TDS and TIN limits **contained in this Order,** which are based on the **current** Santa Ana River WLA are, in fact, protective of that GMZ. **The modeling work and analysis is to commence in 2014 and is to be completed by the end of 2014, if not sooner.** This Order may be reopened if it is found that more restrictive limits or additional control measures are necessary to protect ~~the~~ **downgradient** GMZs.

3. Order No. R8-2013-0032, Attachment F – Fact Sheet, page 13 – Modify the paragraph regarding Satisfaction of Antidegradation Policy as follows:

2. Satisfaction of Antidegradation Policy

Discharges in conformance with the requirements of this Order will not result in a lowering of water quality and therefore conform to antidegradation requirements specified in Resolution No. 68-16, which incorporates the federal antidegradation policy at 40 CFR 131.12 where, as here, it is applicable. As noted above, ~~the Discharger is required to cooperate with and participate in any study undertaken by the Regional Board or~~ the Basin Monitoring Program Taskforce **will be conducting a study** to determine the effects of discharges on the Riverside- A GMZ. If it is determined that the RIX discharge is substantially contributing to the degradation of that groundwater management zone, this Order may be reopened to address the issue.

4. Order No. R8-2013-0032, Attachment F – Fact Sheet, page 18 – Delete item "c", rename item "d" to "c", and modify new item "c" as follows:

~~c. This Order requires the Discharger to cooperate with and Participate in any study undertaken by the Regional Board or the Basin Monitoring Program Taskforce to reevaluate the Waste Load Allocations for TDS and TIN.~~

~~d~~**c**. This Order requires the Discharger to ~~develop procedures to conduct~~ **review and update, if necessary, its** Toxicity Identification and Reduction Evaluations. This provision is based on the SIP, Section 4, Toxicity Control Provisions

Santa Ana Watershed Project Authority

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General Manager

Orange County Water District

Western Municipal Water District

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San Bernardino Valley Municipal Water District

Inland Empire Utilities Agency

July 12, 2013

Kurt V. Berchtold
Executive Officer
Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

RE: Basin Monitoring Program Task Force – SAR Wasteload Allocation

Dear Mr. Berchtold:

The Basin Monitoring Program Task Force (Task Force) was established by formal agreement in August 2004, and is composed of water and wastewater agencies in the Santa Ana River Watershed as well as the Regional Board. The Task Force agreed by unanimous motion on July 9, 2013 to provide a scope-of-work and a schedule to the Regional Board by December 31, 2013. This commitment will allow for additional modeling and analysis to further assess the appropriateness of the current wasteload allocation for nitrogen and TDS; specifically, with regard to the discharges from the Rialto and RIX wastewater treatment plants to the Riverside-A Management Zone. This work will include the use of the current Santa Ana River Wasteload Allocation Model (WLAM) with revised boundary inflow conditions from the operation of Seven Oaks Dam and downstream conservation facilities.

The commitment by the Task Force reflects ongoing plans to commence a series of scoping meetings for the additional modeling and analysis starting in August 2013, and continuing through the remainder of the 2013 calendar year. To assure forward progress on this analysis, the general manager of the City of San Bernardino Municipal Water District (SBMWD), Stacey Aldstadt, offered as a good faith gesture, to commence and pay for the initial tasks to evaluate the revised boundary inflow conditions from the operation of Seven Oaks Dam and downstream conservation facilities at the May 15th Task Force meeting.

The balance of the modeling work and analysis is anticipated to commence in 2014, and be completed by the end of 2014, if not sooner. We are hopeful that this commitment by the Task Force will provide assurance to the Regional Board that work is being undertaken to assure that the groundwater quality of the Riverside-A Management Zone is protected, and need not be included as additional permit requirements in the RIX and Rialto WWTP discharge permits at this time. If you have any questions, please contact me at (951) 354-4221.

Respectfully submitted,

Mark R. Norton

Mark R. Norton P.E., LEED AP
Water Resources & Planning Manager
Basin Monitoring Program Task Force Administrator

C: Hope Smythe, Santa Ana Regional Water Quality Control Board
Najah Amin, Santa Ana Regional Water Quality Control Board
Gary Stewart, Santa Ana Regional Water Quality Control Board

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California Regional Water Quality Control Board
Santa Ana Region

July 19, 2013

ITEM: *11

SUBJECT: Renewal of Waste Discharge Requirements for Colton/San Bernardino Tertiary Treatment and Water Reclamation Authority's Regional Tertiary Treatment Rapid Infiltration and Extraction Facility, Order No. R8-2013-0032, NPDES No. CA8000304, San Bernardino County

DISCUSSION:

See attached Fact Sheet

RECOMMENDATIONS:

Adopt Order No. R8-2013-0032, NPDES No. CA8000304, as presented.

COMMENT SOLICITATION:

Comments were solicited from the discharger and the following agencies:

U.S. Environmental Protection Agency (WTR-5) – Peter Kozelka, Ph.D
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – David Rice
State Department of Fish and Wildlife, Ontario
California Department of Health Services, San Bernardino – Sean McCarthy
San Bernardino County Environmental Health Services – Josh Dugas
San Bernardino County Flood Control –Annesley Ignatius/Gia Kim
Santa Ana Watershed Project Authority – Celeste Cantu
Santa Ana River Dischargers Association – Edward Filadelfia
Orange County Water District - Nira Yamachika, Marsha Westropp, Greg Woodside
Inland Empire Waterkeeper - Megan Brousseau
Orange County Coastkeeper - Garry Brown
Lawyers for Clean Water – Daniel Cooper

California Regional Water Quality Control Board

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http://www.waterboards.ca.gov/santaana

ORDER NO. R8-2013-0032
NPDES NO. CA8000304

WASTE DISCHARGE REQUIREMENTS FOR THE COLTON/SAN BERNARDINO REGIONAL TERTIARY TREATMENT AND WATER RECLAMATION AUTHORITY REGIONAL TERTIARY TREATMENT RAPID INFILTRATION AND EXTRACTION FACILITY SAN BERNARDINO COUNTY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger/Facility Information

Discharger	**The Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority**
Name of Facility	**Regional Tertiary Treatment Rapid Infiltration and Extraction Facility**
Facility Location	**1990 Agua Mansa Road**
	Colton, CA 92324
	San Bernardino County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **major** discharge.	

The discharge by the Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority from the discharge point identified below in Table 2 is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point (Latitude)	Discharge Point (Longitude)	Receiving Water
001	Extracted tertiary treated and disinfected water	34°02'29"N	117°21'17"W	Reach 4 of Santa Ana River, which overlies the Riverside-A Groundwater Management Zone

Table 3. Administrative Information

This Order was adopted by the Regional Water Board on:	July 19, 2013
This Order shall become effective on:	August 1, 2013
This Order shall expire on:	July 31, 2018
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	January 1, 2018

IT IS HEREBY ORDERED, that this Order supersedes Order No. R8-2006-0052 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Kurt V. Berchtold, Executive Officer, do hereby certify that this Order No. R8-2013-0032, with all attachments, is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on July 19, 2013.

Kurt V. Berchtold, Executive Officer

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Attachment I – Triggers for Monitoring Priority Pollutants

I. DISCHARGER/FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Discharger/Facility Information

Discharger	The Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority
Discharger Contact	Stacy R. Aldstadt, President (909) 384-5091
Mailing Address	300 North "D" Street, San Bernardino, CA 92418-0001
Facility	Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) Facility
Facility Address	1990 Aqua Mansa Road, Colton, CA 92324
Facility Contacts	Jennifer Shepardson, Director of Environmental & Regulatory Compliance (909) 384-5063 John A. Claus, Director of Water Reclamation (909) 384-5502
Contacts Mailing Address	399 Chandler Place, San Bernardino, CA 92408
Type of Facility	Publicly Owned Treatment Works(POTW)
Facility Design Flow	40 million gallons per day (mgd) (influent flow)

II. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Water Board), finds:

A. Background: The Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority (hereinafter Discharger) is currently discharging pursuant to Order No. R8-2006-0052 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA8000304. The Discharger submitted a Report of Waste Discharge and applied for an NPDES permit renewal to continue to treat up to 40 mgd of secondary treated wastewater at its Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) Facility (hereinafter Facility) and discharge up to 64 mgd of extracted groundwater to the Santa Ana River.

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 herein.

B. **Facility Description:** The Discharger owns the Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) Facility, a publicly owned treatment works (POTW). The City of San Bernardino Municipal Water Department is the operator of the Facility. Secondary treated wastewater from the Cities of Colton and San Bernardino municipal wastewater treatment plants are delivered into the Facility. The treatment system consists of tertiary equivalent wastewater treatment, including conventional filters, and rapid infiltration and extraction (RIX). The RIX treatment train includes infiltration of secondary treated wastewater into a series of ponds under conditions of wet and dry cycles. The infiltrated wastewater plus native groundwater are extracted and discharged to Reach 4 of the Santa Ana River, a water of the United States.

C. **Legal Authorities:** This Order serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of California Water Code (CWC) commencing with Section 13260. This Order shall also serve as an NPDES permit pursuant to Section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the CWC for point source discharges from this facility to the surface waters.

D. **Background and Rationale for Requirements:** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. Attachment F, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and, thus constitutes part of the Findings for this Order. Attachments A through E, and G through I are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA):** Under CWC section 13389, the action to adopt these waste discharge requirements is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (County of Los Angeles v. California State Water Resources Control Board (2006) 143 Ca. App.4th 985. Mod. (Nov 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636). This action also involves the re-issuance of waste discharge requirements for an existing facility that discharges treated wastewater and as such, is exempt from the provisions of the California Environmental Quality Act (Commencing with Section 21100) pursuant to Title 14 of the California Code of Regulations Section 15301.

F. **Technology-based Effluent Limitations:** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 and/or Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Water Quality-based Effluent Limitations:** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements, which consist of tertiary equivalent treatment requirements, is discussed in the Fact Sheet (Attachment F).

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 a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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1 *All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.*

H. Water Quality Control Plans: The Regional Water Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. 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 Santa Ana Region. More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and groundwaters. This Basin Plan Amendment was adopted by the Regional Water Board on January 22, 2004. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. On June 20, 2007, the USEPA approved the surface water standards provisions of the Amendment. Effluent limitations for TDS and TIN in this Order are based on applicable Total Inorganic Nitrogen (TIN) and TDS wasteload allocations, adopted and now in effect as part of the N/TDS Amendment.

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. Based on the criteria specified in the State Water Board Resolution, the Basin Plan specifies that the Santa Ana River, Reach 5 (downstream of Orange Avenue) and downstream reaches of the River are excepted from the municipal and domestic supply beneficial use. As discussed in detail in the Fact Sheet (Attachment F), beneficial uses applicable to Reach 4 of Santa Ana River are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Reach 4 of Santa Ana River (and downstream reaches)	Present or Potential: Groundwater recharge (GWR), water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, and wildlife habitat (WILD) Excepted from Municipal and Domestic supply
	Riverside-A Groundwater management zone	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
	Downgradient groundwater management zones	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

Requirements of this Order implement the Basin Plan.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR):** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. The NTR and CTR contain water quality criteria for priority pollutants.

J. **State Implementation Policy:** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. **Alaska Rule:** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

L. **Antidegradation Policy:** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters 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. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

M. **Anti-Backsliding Requirements:** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, As discussed in the Fact Sheet, all effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order. Therefore, this Order conforms to the anti-backsliding requirements of the CWA.

N. **Monitoring and Reporting:** Water Code Sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement State and federal requirements. This Monitoring and Reporting Program is provided in Attachment E.

O. **Standard and Special Provisions:** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

P. **Notification of Interested Parties:** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

Q. **Consideration of Public Comment:** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

A. Wastewater discharged shall be limited to treated and disinfected effluent that meets the conditions and requirements specified in Section IV.A.1., except for discharges of treated wastewater that meets the conditions specified in Section IV.A.3. when the flow[2] in the River results in a dilution of 20:1 or more at the point of discharge.

B. The direct discharge of secondary treated wastewater to Reach 4 of Santa Ana River other than when the flow[2] in the River results in a dilution of 20:1 or more at the point of discharge is prohibited.

C. The Discharge of wastewater at a location or in a manner different from those described in this Order is prohibited.

D. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provisions (Attachment D) - Permit Compliance I. G.

E. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

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2 *Exclusive of discharges to surface waters from upstream publicly owned treatment works.*

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Effluent Limitations – Without 20:1 Dilution

Unless otherwise specified hereinafter, compliance with the following effluent limitations shall be measured at monitoring location M-001 as described in the attached Monitoring and Reporting Program (Attachment E).

a. The Discharger shall comply with the following effluent limitations at DP 001:

Parameter	Units	Effluent Limitations	
		Average Monthly	Average Weekly
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30
Total Suspended Solids	mg/L	20	30
Ammonia-Nitrogen	mg/L	4.5	--

b. Total Dissolved Solids (TDS):

1) The 12-month flow weighted running average total dissolved solids constituent concentration shall not exceed 550 mg/l, unless the discharger demonstrates to the satisfaction of the Regional Water Board's Executive Officer that:

a) Discharges in excess of the TDS limits are due to the quality of water supply sources utilized in the Discharger's service area, and that all reasonable steps, as agreed upon by Executive Officer, have been taken to ensure that the best quality supplies are obtained and utilized in the Dischargers service area; and/or

b) Discharges in excess of the TDS limits are due to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all reasonable steps to optimize chemical additions so as to minimize the increases; and

c) The Discharger implements a plan, with the approval of the Executive Officer, to offset TDS discharges in excess of the 550 mg/L limit.

2) The 12-month flow weighted running average total dissolved solids concentration shall not exceed the 12-month flow weighted running average total dissolved solids concentration in the water supply by more than 250 mg/l, unless the Discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that TDS discharge in excess of 250 mg/l mineral increment are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all reasonable steps to optimize chemical additions so as to minimize the TDS increases.

c. Total Inorganic Nitrogen (TIN)

The 12-month flow weighted running average TIN concentration shall not exceed 10 mg/l. unless the Discharger implements a plan, with the approval of the Executive Officer, to offset TIN discharges in excess of the TIN limits.

d. The discharge shall at all times be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

1) Turbidity:
   a) When filtration is through natural undisturbed soils or a bed of filter media or cloth filter, the turbidity of the filter effluent shall not exceed any of the following:
      i. Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;
      ii. 5 NTU more than 5 percent of the time in any 24-hour period; and
      iii. 10 NTU at any time.

   b) When filtration is through microfiltration, the turbidity of the filter effluent shall not exceed any of the following:
      i. 0.2 Nephelometric Turbidity Unit (NTU) more than 5 % of the time within a 24-hour period; and
      ii. 0.5 NTU at any time.

2) Disinfection: The discharge shall not exceed the following:

Where ultraviolet (UV) disinfection is used for disinfection, UV disinfection shall meet the requirements specified in the Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse, published by the National Water Research Institute, Second Edition, unless otherwise approved by the California Department of Health Services.

3) Coliform: The discharge shall not exceed any of the following:

   a) The weekly average concentration of total coliform bacteria shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
   To comply with this limit, the 7-day median MPN must not exceed 2.2 per 100 milliliters on any day during a calendar week. However, only one violation is to be recorded for each calendar week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week.
   b) The number of total coliform bacteria shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period.
   c) No total coliform bacteria sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

f. pH:

The pH of the discharge shall be within 6.5 to 8.5 pH units at all times. Compliance with pH limits shall be determined as follows:

1) The total time during which the pH is outside the range of 6.5 - 8.5 pH units shall not exceed 7 hours and 26 minutes in any calendar month; and
2) No individual excursion from the range of 6.5 – 8.5 pH units shall exceed 60 minutes.

2. Toxicity Requirements

Compliance with toxicity requirements shall be measured at monitoring location M-001:

a. There shall be no acute or chronic toxicity in the plant effluent nor shall the plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. This Order contains no numeric limitation for toxicity. However, the Discharger shall conduct chronic toxicity monitoring.

b. The Discharger shall implement the accelerated monitoring as specified in Attachment E when the result of any single chronic toxicity test of the effluent exceeds 1.0 TUc.

3. Effluent Limitations - Under Conditions of 20:1 or More Dilution

Whenever the flow[3] in Santa Ana River, as measured at monitoring location R-001U results in a dilution of 20:1 (receiving water flow : wastewater flow) or more, the Discharger shall comply with the following effluent limitations in lieu of those specified in Effluent Limitation IV.A.1., above :

a. Physical/Biological Limitations:

Table 1 - Effluent Limitations for DP-001, 002, and 003 With 20:1 Dilution

Parameter	Units	Effluent Limitations	
		Average Monthly	Average Weekly
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45
Total Suspended Solids	mg/L	30	45

b. Coliform:

The weekly average number of coliform bacteria does not exceed a median of 23 per 100 milliliters as determined from the daily coliform bacteria values for the last seven (7) days. To comply with the limit, the 7-day median MPN must not exceed 23 per 100 milliliters on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 23 for more than one day in the week.

c. pH:

The pH of the discharge shall be within 6.5 to 8.5 pH units at all times. Compliance with pH limits shall be determined as follows:

1) The total time during which the pH is outside the range of 6.5 - 8.5 pH units shall not exceed 7 hours and 26 minutes in any calendar month; and
2) No individual excursion from the range of 6.5 – 8.5 pH units shall exceed 60 minutes.

B. Land Discharge Specifications - Not Applicable

C. Reclamation Specifications- Not Applicable

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3 *Exclusive of discharges to surface waters from upstream publicly owned treatment works.*

V. RECEIVING WATER LIMITATIONS AND SPECIFICATIONS

A. Surface Water Limitations

1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in the Santa Ana River, Reach 4, or in downstream Reaches of the Santa Ana River:

   a. Coloration of the receiving waters, which causes a nuisance or adversely affects beneficial uses.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters, which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

   d. Taste or odor-producing substances in the receiving waters at concentrations, which cause a nuisance or adversely affect beneficial uses.

   e. The presence of radioactive materials in the receiving waters in concentrations, which are deleterious to human, plant or animal life.

   f. The depletion of the dissolved oxygen concentration below 5.0 mg/L.

   g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

   h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

2. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board, as required by the Clean Water Act and regulations adopted thereunder.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels, which are harmful to human health.

4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 milligram methylmercury/kilogram. (See also Section VI.C.1.e. and VI.C.2.a, below).

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order and the following additional provisions:

   a. Neither the treatment nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

   b. The Discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

   c. The Discharger shall take all reasonable steps to minimize any adverse impact to receiving waters resulting from noncompliance with any requirements specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

   d. The Discharger shall optimize chemical additions needed in the treatment process to meet waste discharge requirements so as to minimize total dissolved solid increases in the treated wastewater.

   e. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions 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 thereby.

   f. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Regional Water Board's Executive Officer.

   g. If the Discharger demonstrates a correlation between the biological oxygen demand (BOD_5) and total organic carbon (TOC) concentrations in the effluent to the satisfaction of the Executive Officer, compliance with the BOD_5 limits contained in this Order may be determined based on analyses of the TOC of the effluent.

h. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board.

i. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

j. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

k. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board. All noncompliance that may have an immediate impact on human health or the environment shall be reported by telephone (951) 782-4130 or by email to: info8@waterboards.ca.gov within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

l. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following.

   1) Violation of any terms or conditions of this Order;
   2) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts, or;
   3) In addition to any other grounds specified herein, this Order may be modified or revoked at any time if, on the basis of any data, the Regional Water Board determines that continued discharges may cause unreasonable degradation of water quality.

m. If an effluent standard or discharge prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Clean Water Act for a toxic pollutant which is present in the discharge, and such standard or prohibition is more stringent than any limitation for that pollutant in this Order, this Order may be modified or revoked and reissued to conform to the effluent standard or discharge prohibition.

n. The Discharger shall file with the Regional Water Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

1). Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.
2). Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.
3). Significantly changing the method of treatment.
4). Increasing the treatment plant design capacity beyond that specified in this Order.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.

b. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality objectives.

c. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.

d. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by any requirement of this Order. These requirements may include, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the monitoring data.

e. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury if test results (as required in Attachment E of this Order) show that the concentration levels of methylmercury in the fish tissue are at or above 0.3 milligrams per kilogram.

f. This Order may be reopened, if necessary and appropriate, to specify revised effluent limitations for TDS and/or TIN, or to require additional studies, based on the results of the investigation required by section VI.C.2 c, below.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. The Discharger is an active participant in the comprehensive mercury investigation program currently being conducted by a group of Santa Ana River system Dischargers. If the Discharger discontinues its involvement with this comprehensive program, the Discharger shall, within 60 days of that date, submit for the approval of the Executive Officer its plan for the annual testing of mercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the discharge point. Upon approval, the Discharger shall implement the plan.

b. Within 60-days of the effective date of this Order, the Discharger shall review and update, if necessary, its report that details the manner in which sampling, monitoring and reporting will be performed as required in the Order.

c. The Discharger shall conduct a study to reevaluate the Waste Load Allocations for TDS and TIN for discharges from this Facility to determine if they are protective of water quality in the Riverside A Groundwater Management Zone. The study shall be completed by January 1, 2015. By January 1, 2014, the Discharger shall submit a plan and schedule, acceptable to the Regional Water Board's Executive Officer, of the activities needed to complete this task. This task may be conducted in cooperation with the Basin Planning Task Force.

d. Toxicity Reduction Requirements.

1) Within 60 days of the effective date of this Order, the Discharger shall review and update, if necessary, its Initial Investigation Toxicity Reduction Evaluation (IITRE) work plan that describes the steps the Discharger intends to follow if required by Toxicity Requirement d.2), below. The work plan shall include at a minimum:

   a) A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of the exceedance, effluent variability, and/or efficiency of the treatment system in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program.
   b) A description of the methods to be used for investigating and maximizing in-house treatment efficiency and good housekeeping practices.
   c) A description of the evaluation process to be used to determine if implementation of a more detailed TRE\TIE is necessary.

2) The Discharger shall implement the IITRE work plan whenever the results of chronic toxicity tests of the effluent exceed:

   a) A two month median value of 1.0 TUc for survival or reproduction endpoint or,
   b) Any single test value of 1.7 TUc for survival endpoint.

3) Within 60 days of the effective date of this Order, the Discharger shall review and update, if necessary, its Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan that describes the steps the Discharger intends to follow if the implemented IITRE fails to identify the cause of, or to rectify, the toxicity.

4) The Discharger shall use as guidance, at a minimum, EPA manuals EPA/600/2-88/070 (industrial), EPA/600/4-89-001A (municipal), EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) to identify the cause(s) of toxicity. If during the life of this Order the aforementioned EPA manuals are revised or updated, the revised/updated manuals may also be used as guidance. The detailed TRE/TIE work plan shall include:

   a) Further actions to investigate and identify the cause of toxicity;
   b) Actions the Discharger will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
   c) A schedule for these actions.

5) The Discharger shall implement the TRE/TIE workplan if the IITRE fails to identify the cause of, or rectify, the toxicity, or if in the opinion of the Executive Officer the IITRE does not adequately address an identified toxicity problem.

6) The Discharger shall assure that adequate resources are available to implement the required TRE/TIE.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

1) The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

a) A sample result is reported as DNQ and the effluent limitation is less than the RL; or

b) A sample result is reported as ND and the effluent limitation is less than the MDL.

2) The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

a) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

b) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

c) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

d) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

e) An annual status report that shall be sent to the Regional Water Board including:

(1) All PMP monitoring results for the previous year;
(2) A list of potential sources of the reportable priority pollutant(s);

(3) A summary of all actions undertaken pursuant to the control strategy; and
(4) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. The Discharger's wastewater treatment plant shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23, Division 3, Chapter 14, California Code of Regulations.

b. The Discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the Discharger will comply with the requirements of this Order.

c. The Discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment facility to conform to latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

1) Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.
2) Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
3) Description of laboratory and quality assurance procedures.
4) Process and equipment inspection and maintenance schedules.
5) Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.
6) Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. General.
Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the Monitoring and Reporting Program and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the minimum level (ML).

B. Multiple Sample Data.
When determining compliance with an AMEL for priority pollutants and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).
If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single instance of non-compliance or exceedance for the purposes of mandatory minimum penalties, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL).
If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single instance of non-compliance or exceedance for the purposes of mandatory minimum penalties, though the Discharger may be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger may be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).
If a daily discharge exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.
If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.
If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger may be considered out of compliance for that parameter for that single sample. Non-compliance for each sample may be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. 12-Month Flow Weighted Running Average Effluent Limitation (12-MRAEL).
Compliance with the 12-month running average limits under Discharge Specification IV.A.1.b., IV.A.1.c., shall be determined by the arithmetic mean of the last twelve monthly averages.

I. TDS Increment Limit.

Compliance with Discharge Specifications IV.A.1.b.2) shall be based on flow weighted TDS water supply quality and may be determined from TDS analysis of secondary treated wastewater. The Discharger shall provide the necessary calculations showing the overall TDS water supply quality.

J. Priority Pollutants.

The Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation. Compliance determination shall be based on the reporting level selected from minimum level (ML)[4] specified in Attachment "I" of this Order, unless an alternative reporting level is approved by the Regional Water Board's Executive Officer.

When there is more than one ML value for a given substance, the Discharger shall select the ML value that is below the calculated effluent limitation, and use its associated analytical method, listed in Attachment "I" of this Order. If no ML value is below the effluent limitation, then the Regional Water Board will select as the reporting level the lowest ML value and its associated analytical method.

K. Non-Priority Pollutants.

The discharge shall be considered to be in compliance with an effluent limitation that is less than or equal to the PQL specified in Attachment H of this Order if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the specified PQL shall be assigned a value of zero.

L. Compliance Determination

Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e. g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.

Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL or PQL) for that chemical.

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4 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable 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.*

ATTACHMENT A – DEFINITIONS

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.

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.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Bioaccumulative pollutants are 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.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (*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.

Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.

Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects.

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.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

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.

Dilution Ratio is the critical low flow of the upstream receiving water divided by the flow of the effluent discharged.

Effluent Concentration Allowance (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 U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

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

Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Inland Surface Waters are 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).

Load Allocation (LA) is the portion of receiving water's total maximum daily load that is allocated to one of its nonpoint sources of pollution or to natural background sources.

Maximum Daily Flow is the maximum flow sample of all samples collected in a calendar day.

Maximum Daily Effluent Limitation (MDEL) means 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.

Median is 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) 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 136, Appendix B, revised as of May 14, 1999.

Minimum Level (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 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.

New Discharger includes any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants, the construction of which commenced after the effective date of this Policy.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Objectionable Bottom Deposits are an accumulation of materials or substances on or near the bottom of a water body, which creates conditions that adversely impact aquatic life, human health, beneficial uses, or aesthetics. These conditions include, but are not limited to, the accumulation of pollutants in the sediments and other conditions that result in harm to benthic organisms, production of food chain organisms, or fish egg development. The presence of such deposits shall be determined by RWQCB(s) on a case-by-case basis.

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

Pollutant Minimization Program (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 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 Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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 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 SWRCB or RWQCB.

Process Optimization means minor changes to the existing facility and treatment plant operations that optimize the effectiveness of the existing treatment processes.

Public Entity includes the federal government or a state, county, city and county, city, district, public authority, or public agency.

Reporting Level (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.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a RWQCB basin plan.

Standard Deviation (σ) 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.

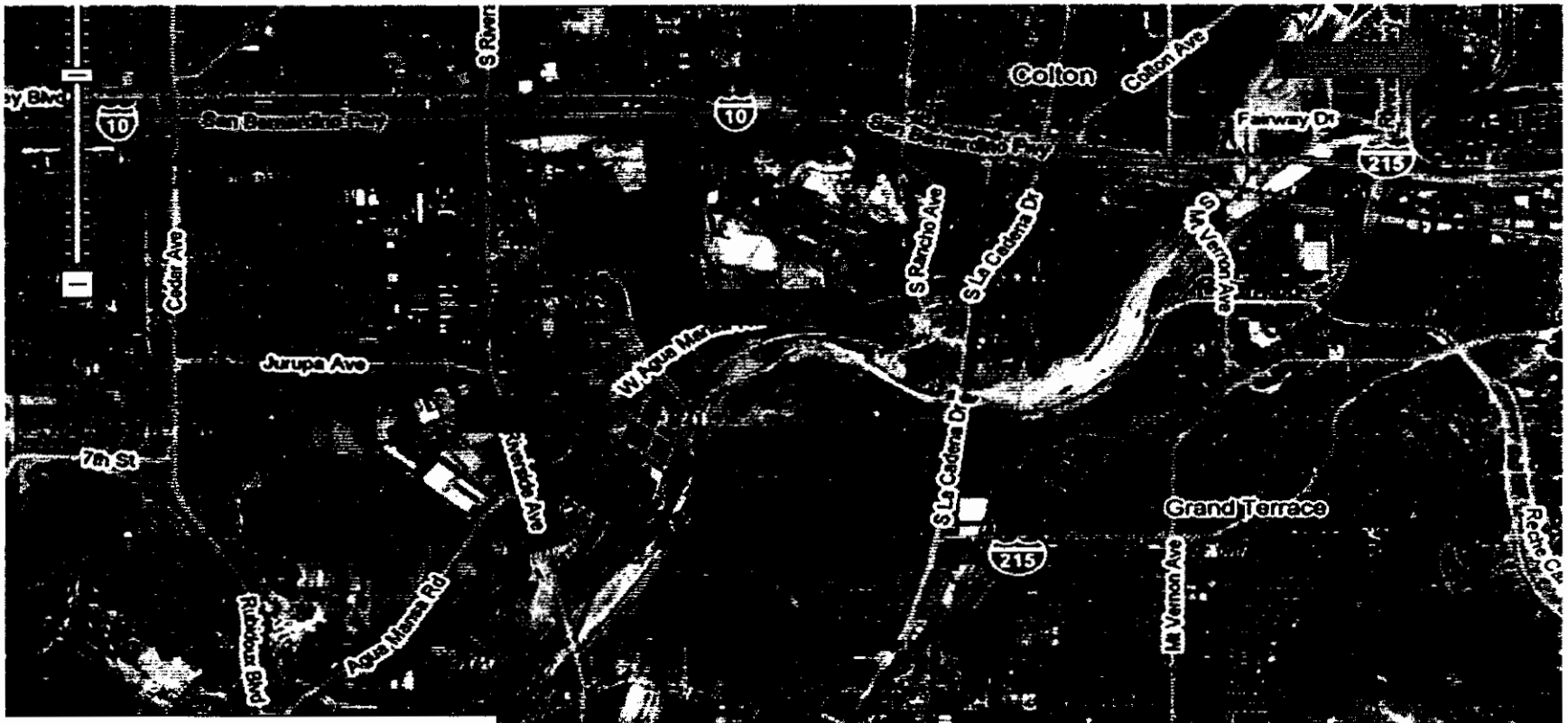
Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps 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.)

Use Attainability Analysis is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors as described in 40 CFR 131.10(g) (40 CFR 131.3, revised as of July 1, 1997).

Water Effect Ratio (WER) is an appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

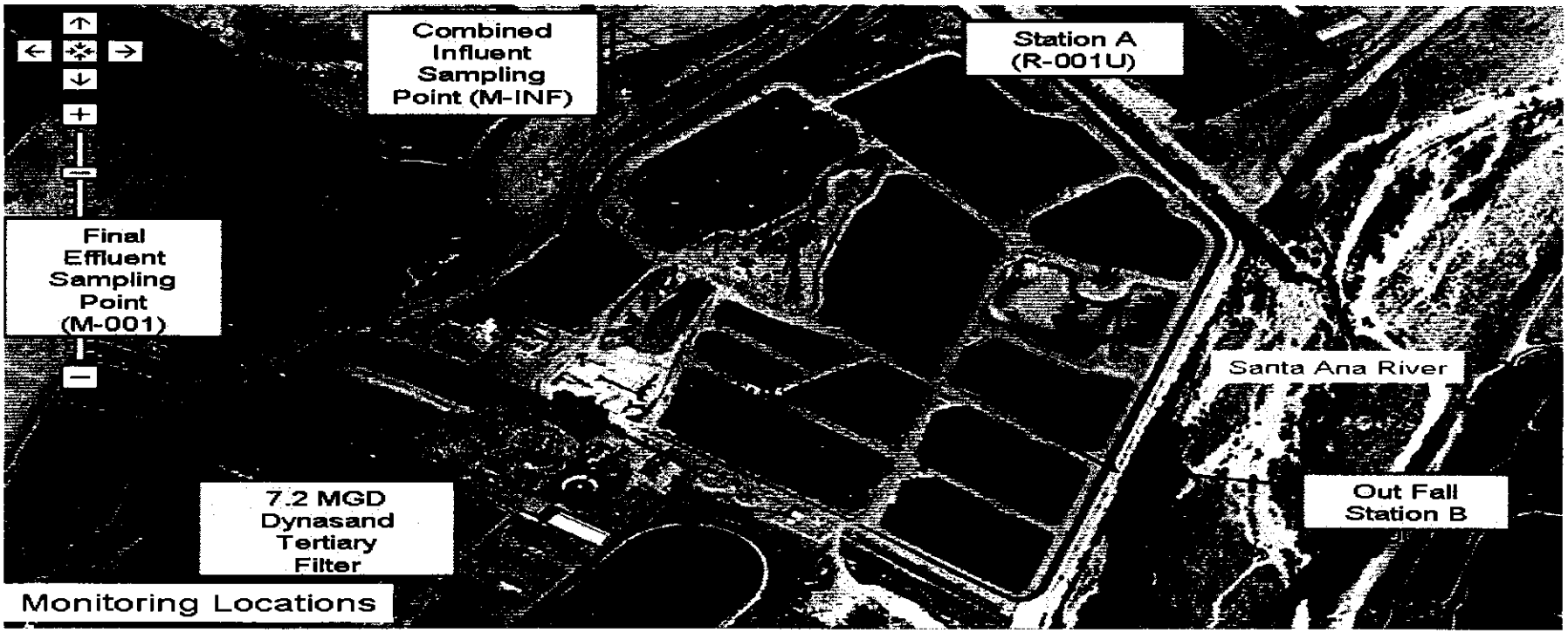
12-Month Running Average Effluent Limitation (12-MRAEL): the highest allowable average of monthly discharges over last twelve months, calculated as the sum of all monthly discharges measured during last twelve months divided by the number of monthly discharges measured during that time period.

ATTACHMENT B1 – LOCATION MAP

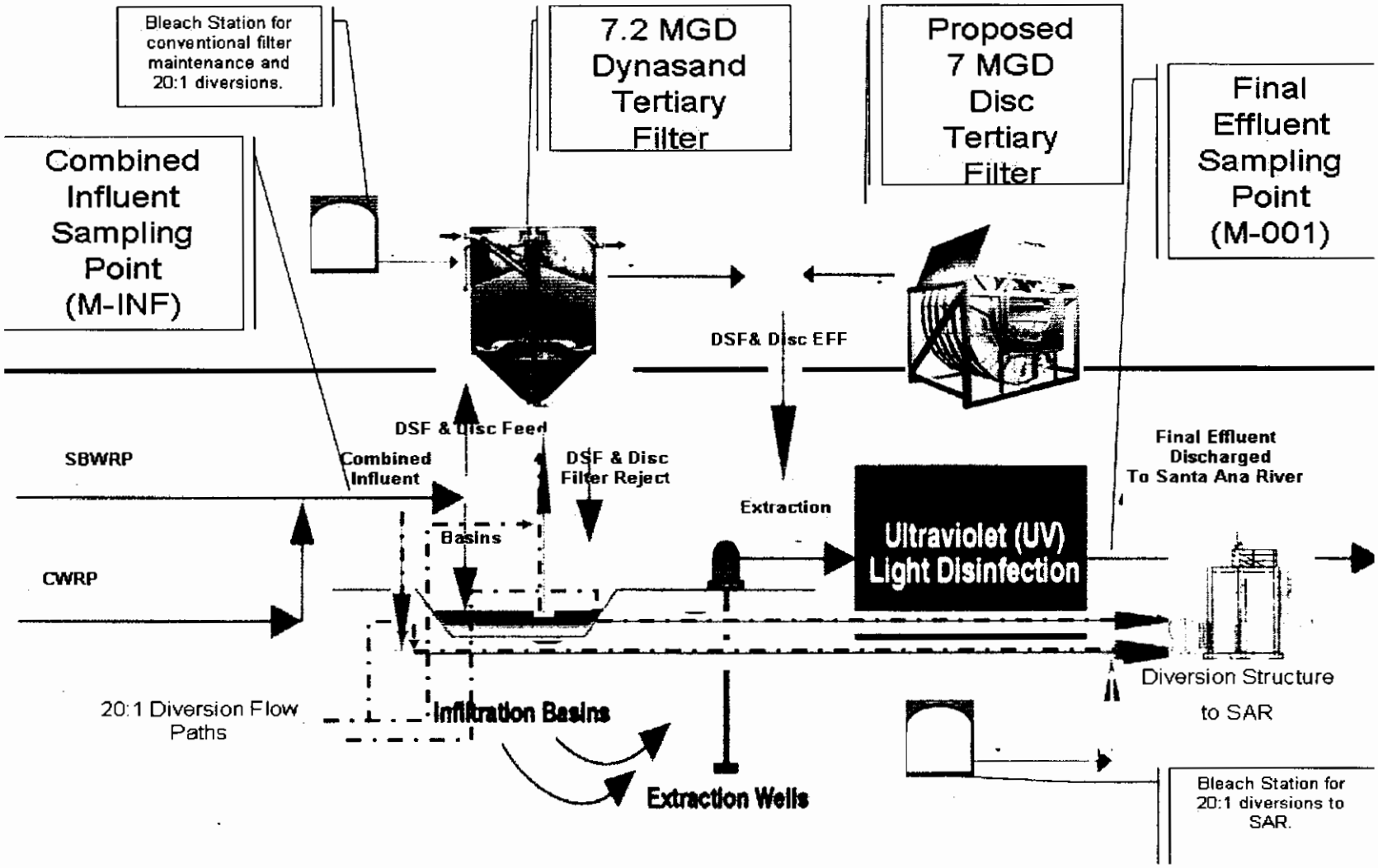


Map of Surrounding Area

ATTACHMENT B2 –OUTFALL AND MONITORING LOCATION MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall 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 §122.41(a)(1)*].

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger 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 §122.41(c)*].

C. Duty to Mitigate

The Discharger 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 §122.41(d)*].

D. Proper Operation and Maintenance

The Discharger 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 Discharger 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 Discharger only when necessary to achieve compliance with the conditions of this Order [*40 CFR §122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR §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 §122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (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 §122.41(i)*] [*CWC 13383(c)*]:

1. Enter upon the Discharger'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 §122.41(i)(1)*];

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [*40 CFR §122.41(i)(2)*];

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 §122.41(i)(3)*];

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [*40 CFR §122.41(i)(4)*].

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [*40 CFR §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 §122.41(m)(1)(ii)*].

2. Bypass not exceeding limitations – The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is 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 §122.41(m)(2)*].

3. Prohibition of bypass – Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [*40 CFR §122.41(m)(4)(i)*]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [*40 CFR §122.41(m)(4)(A)*];

   b. 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 §122.41(m)(4)(B)*]; and

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)(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 §122.41(m)(4)(ii)*].

5. Notice

   a. Anticipated bypass. If the Discharger 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 §122.41(m)(3)(i)*].

   b. Unanticipated bypass. The Discharger 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 §122.41(n)(1)*].

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 Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [*40 CFR §122.41(n)(3)*]:

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];

   b. The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];

   c. The Discharger 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 Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §122.41(n)(3)(iv)*].

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [*40 CFR §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 the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [*40 CFR §122.41(f)*].

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [*40 CFR §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 Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §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 §122.41(j)(1)*].

B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [*40 CFR §122.41(j)(4)*] [*40 CFR §122.44(i)(1)(iv)*].

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger'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 Discharger 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 §122.41(j)(2)*].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];
2. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];
3. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];
4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];
5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and
6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

C. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

1. The name and address of any permit applicant or Discharger [*40 CFR §122.7(b)(1)*]; and

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Water Board, SWRCB, 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, the Discharger shall also furnish to the Regional Water Board, SWRCB, or USEPA copies of records required to be kept by this Order [*40 CFR §122.41(h)*] [*CWC 13267*].

B. Signatory and Certification Requirements

1. 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)*].

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [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 specified 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 and State 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, State Water Board or USEPA 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 §122.41(l)(4)*].

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or SWRCB for reporting results of monitoring of sludge use or disposal practices [*40 CFR §122.41(l)(4)(i)*].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this 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 §122.41(l)(4)(ii)*].

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [*40 CFR §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 §122.41(l)(5)*].

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger 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 §122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(A)*].

   b. Any upset that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(B)*].

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 §122.41(l)(6)(iii)*].

F. Planned Changes

The Discharger 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 §122.41(l)(1)*]:

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 §122.29(b) [*40 CFR §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 which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [*40 CFR §122.41(l)(1)(ii)*].

3. The alteration or addition results in a significant change in the Discharger'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 process or not reported pursuant to an approved land application plan [*40 CFR §122.41(l)(1)(iii)*].

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [*40 CFR §122.41(l)(2)]*.

H. Other Noncompliance

The Discharger 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(l)(7)*].

I. Other Information

When the Discharger 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, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information [*40 CFR §122.41(l)(8)*].

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR Section 122.42(b)*]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [*40 CFR Section 122.42(b)(1)*]; and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [*40 CFR Section 122.42(b)(2)*].

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [*40 CFR Section 122.42(b)(3)*].

Attachment E – Monitoring and Reporting Program

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (RWQCB) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

1. All sampling and sample preservation shall be in accordance with the current edition of "*Standard Methods for the Examination of Water and Wastewater*" (American Public Health Association).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (revised as of May 14, 1999) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this MRP. In addition, the Regional Water Board and/or EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136. (See also I.6., below)

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health (CDPH) in accordance with the provision of Water Code Section 13176, and must include quality assurance/quality control data with their reports, or EPA or at laboratories approved by the Regional Water Board's Executive Officer.

4. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

5. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.

6. For effluent monitoring:

   a. The Discharger shall require its testing laboratory to calibrate the analytical system down to the minimum level (ML)[1] specified in Attachment H for priority pollutants with effluent limitations in this Order, unless an alternative minimum level is approved by the Regional Water Board's Executive Officer. When there is more than one ML value for a given substance, the Discharger shall use the ML values, and their associated analytical methods, listed in Attachment H that are below the effluent limitation. For analysis of priority pollutants without effluent limitations, the Discharger shall use an ML value that is below the trigger values listed in Attachment I. If no ML value is below the effluent limitation, or the trigger value listed in Attachment I, then the lowest ML and associated analytical method shall be used. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

   b. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

      1) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

      2) Sample results less than the reported ML, but greater than or equal to the laboratory's current Method Detection Limit (MDL)[2], shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

      3) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

   c. The Discharger shall submit to the Regional Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment G – Priority Pollutant Lists. The Discharger shall report with each sample result:

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1 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable 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.*

2 *MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analytical concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of May 14, 1999.*

1) The minimum level achieved by the testing laboratory; and

2) The laboratory's current MDL, as determined by the procedure found in 40 CFR 136.

d. For receiving water monitoring and for those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136. In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[3] is below the minimum level value specified in Attachment H and the Discharger cannot achieve an MDL value for that pollutant below the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

7. For non-priority pollutants monitoring, all analytical data shall be reported with identification of practical quantitation levels and with method detection limits, as determined by the procedure found in 40 CFR 136.

8. The Discharger shall have, and implement an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by the Regional Water Board or EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study.

9. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when compliance with the time schedule has been achieved.

10. The Discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years (this retention period supersedes the retention period specified in Section IV.A. of Attachment D) from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Water Board at any time. Records of monitoring information shall include:

    a. The information listed in Attachment D- IV Standard Provisions – Records, subparagraph B. of this Order;

[3] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

b. The laboratory which performed the analyses;

c. The date(s) analyses were performed;

d. The individual(s) who performed the analyses;

e. The modification(s) to analytical techniques or methods used;

f. All sampling and analytical results, including

   1) Units of measurement used;
   2) Minimum reporting level for the analysis (minimum level, practical quantitation level (PQL));
   3) Results less than the reporting level but above the method detection limit (MDL);
   4) Data qualifiers and a description of the qualifiers;
   5) Quality control test results (and a written copy of the laboratory quality assurance plan);
   6) Dilution factors, if used; and
   7) Sample matrix type.

g. All monitoring equipment calibration and maintenance records;
h. All original strip charts from continuous monitoring devices;
i. All data used to complete the application for this Order; and,
j. Copies of all reports required by this Order.
k. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.

11. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

12. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24-hour period, the Discharger shall obtain a representative grab sample each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the Discharger shall specify the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

13. Monitoring and reporting shall be in accordance with the following:

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The monitoring and reporting of influent, effluent, and sludge shall be done more frequently as necessary to maintain compliance with this Order and or as specified in this Order.

c. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

d. A "grab" sample is defined as any individual sample collected in less than 15 minutes.

e. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.

f. Daily samples shall be collected on each day of the week.

g. Monthly samples shall be collected on any representative day of each month.

h. Quarterly samples: A representative grab sample shall be taken on any representative day of January, April, July, and October and test results shall be reported in micrograms/liter (ug/L) by the first day of the second month following the quarter in which the sample was taken.

i. Semi-annual samples shall be collected in January and July.

j. Annual samples shall be collected in accordance with the following schedule:

Table 1. Annual Sampling Schedule

Year	Annual Samples
2013	September
2014	December
2015	March
2016	June
2017	September
2018	December

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 2. Monitoring Station Locations

Discharge Point	Monitoring Location	Monitoring Location Description	Latitude and Longitude
--	M-INF	RIX combined influent from Colton and San Bernardino facilities	34°02.737' / 117°21.425'
001	M-001	RIX effluent to Reach 4, Santa Ana River	34°02.481' / 117°21.281'
--	R-001U	Receiving surface water – Santa Ana River at suitable location within 500 feet upstream of the outfall of Rialto Channel	34°02.552' / 117°21.132'
--	R-001Da	Receiving surface water – Santa Ana River immediately downstream of the outfall of DP 001—dry season	34°02.481' / 117°21.281'
--	R-001Db	Receiving surface water – Santa Ana River within 500 feet downstream of the outfall of DP 001—wet season	34°02.350' / 117°21.327'

III. INFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor the flow of the influent to the Facility at Monitoring Location M-INF continuously with a recorder/totalizer.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Tertiary Treated Wastewater

1. The Discharger shall monitor tertiary treated effluent for DP 001 at Monitoring Location M-001 as follows:

Table 3. Tertiary Effluent Monitoring Requirements at M-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Recorder/Totalizer	Continuous	--
Specific Conductance	µmhos/cm	Grab	Daily	See Section I.2 & I.3., above
pH	pH units	"	"	"
Total Residual Chlorine[4]	mg/L	Recorder	Continuous	--
Turbidity[5]	NTU	Recorder	"	--

[4] *Applicable when chlorine is used for disinfection of the wastewater.*

[5] *Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average turbidity limit shall be determined by averaging the levels of recorded turbidity*

Table 3. Tertiary Effluent Monitoring Requirements at M-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Coliform Organisms	MPN per 100 ml[6]	Grab	Daily	See Section I.2 & I.3., above
BOD_5	mg/L	24-hr Composite	Weekly	"
Suspended Solids	mg/L	24-hr Composite	Weekly	"
Ammonia-Nitrogen	mg/L	24-hr Composite	Weekly	"
Toxicity Monitoring	TUc	See Section V.A., Below	Monthly	See Section V.A., Below
Total Inorganic Nitrogen	mg/L	24-hr Composite	Monthly	See Section I.2 & I.3 above
Total Dissolved Solids	"	"	"	"
Bicarbonate	"	"	Quarterly	"
Total Hardness	"	"	"	
Boron	"	"	"	"
Calcium	"	"	"	"
Carbonate	"	"	"	"
Chloride	"	"	"	"
Fluoride	"	"	"	"
Magnesium	"	"	"	"
Nitrate	"	"	"	"
Sodium	"	"	"	"
Sulfate	"	"	"	"
Aluminum	µg/L	"	Quarterly, (See IV.A.2., below)	See Sections I.2., I.3., & I.6., above
Arsenic	"	"	"	"
Barium	"	"	"	"
Cadmium		"	"	"
Cobalt	"	"	"	"
Chromium (VI) or Total Chromium	"	"	"	"
Copper	"	"	"	"
Lead	"	"	"	"
Mercury	"	"	"	"
Nickel	"	"	"	"
Selenium	"	"	"	"
Silver	"	"	"	"
Zinc	"	"	"	
Cyanide, free	"	Grab	"	"
Phenolic Compounds	"	"	"	"
Volatile organic portion of remaining EPA	µg/L	Grab	Annually (See IV. A.3.,	"

taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly.

6 *MPN/100mL = Most Probable Number per 100 milliliters*

Table 3. Tertiary Effluent Monitoring Requirements at M-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Priority Pollutants (See Attachment "G")			below)	
Remaining EPA Priority Pollutants (See Attachment "G")	µg/L	24-hr Composite	"	"

2. The monitoring frequency for those priority pollutants that are detected during the required quarterly monitoring at a concentration greater than the concentration specified for that pollutant[7] in Attachment I shall be accelerated to monthly. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee.

3. The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than the concentration specified for that pollutant[7] in Attachment I shall be accelerated to quarterly for one year. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee.

B. Secondary Effluent Monitoring Locations at M-001 With 20:1 Dilution

1. The Discharger shall monitor secondary treated effluent at M-001 when 20:1 or more dilution is provided by the Santa Ana River at the time of the discharge, as follows:

Table 5. Secondary Effluent Monitoring at M-001 with 20:1 Dilution

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Recorder/ Totalizer	Continuous	--
pH	pH units	Grab	Daily	See Section I.2 & I.3 above
Total Residual Chlorine	mg/L	"	"	"
BOD_5	"	Grab	"	"
Suspended Solids	"	"	"	"
Coliform Organisms	MPN per 100 ml	"	"	"

7 *For those priority pollutants without specified criteria values, accelerated monitoring is not required.*

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Toxicity Monitoring Requirements at M-001

1. The Discharger shall conduct critical life stage chronic toxicity testing in accordance with Method 1002.0 - Survival and Reproduction test for water flea, *Ceriodaphnia dubia* as specified in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 2002, Cincinnati, Ohio (October 2002, EPA-821-R-02-013).

2. The Discharger shall establish procedures to ensure that the toxicity testing laboratory notifies the Discharger of the results of toxicity testing by the end of the next business day following the completion of such tests.

3. The Discharger shall increase the frequency of chronic toxicity testing to every two weeks whenever any test result exceeds 1.0 TUc. The first test under the accelerated schedule shall be conducted within two weeks of receiving notice of the test that exceeds 1.0 TUc, and every two weeks thereafter. The Discharger may resume the regular test schedule when two consecutive chronic toxicity tests result in 1.0 TUc, or when the results of the Initial Investigation Reduction Evaluation conducted by the Discharger have adequately addressed the identified toxicity problem.

4. The presence of chronic toxicity shall be estimated as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013.

5. Results for both survival and reproduction endpoints shall be reported in TUc, where TUc = 100/NOEC or $100/IC_p$ or EC_p (p is the percent effluent). The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the tests organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from the controls). The inhibition concentration (IC) is a point estimate of the toxicant concentration that causes a given percent reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method). The effective concentration (EC) is a point estimate of the toxicant concentration that would cause a given percent reduction in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., probit).

6. Additional Testing Requirements

   a. A series of at least five dilutions and a control will be tested. Five dilutions of the series shall be within 60% to 100% effluent concentration.

   b. If organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicants shall also be conducted using the same test conditions as the effluent toxicity test (e.g., same test duration, etc).

   c. If either of the reference toxicant test or the effluent tests do not meet all test acceptability criteria as specified in the manual[8], then the Discharger must re-sample and re-test within 14 days or as soon as the Discharger receives notification of failed tests.

   d. Control and dilution water should be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

7. Quality Assurance/Control:

   a. A quality assurance/quality control (QA/QC) program shall be instituted to verify the results of the effluent toxicity monitoring program. The QA/QC program shall include but shall not be limited to the following: (1) Selection of an independent testing laboratory; (2) Approval by the Regional Board's Executive Officer or Executive Officer's designee of the independent testing laboratory; (3) Once during the year, the Discharger shall split samples with the independent laboratory for conducting chronic toxicity testing; (4) Results from the independent laboratory shall be submitted to the Regional Board and the Discharger for evaluation; (5) The Discharger shall review the test acceptability criteria in accordance with the EPA test protocols.

   b. Results from the independent laboratory of the annual QA/QC split samples are to be used for Quality Assurance/Quality Control (QA/QC) purposes only and not for purposes of determining compliance with other requirements of this Order.

8. The use of alternative methods for measuring chronic toxicity may be considered by the Executive Officer on a case–by-case basis. The use of a different test species, in lieu of conducting the required test species may be considered and approved by the Executive Officer on a case-by case basis upon submittal of the documentation supporting Discharger's determination that a different species is more sensitive and appropriate.

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8 *Refers to USEPA Manual "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. - 4th Ed., October 2002, EPA-821-R-02-013, or most recent version.*

9. Reporting: Results of all toxicity testing conducted within the month following the reporting period shall be submitted monthly in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013", or most recent version. The report shall include a determination of the median value of all chronic toxicity testing results conducted during the two previous months.

10. Whenever an Initial Investigation Reduction Evaluation is conducted, the results of the evaluation shall be submitted upon completion. In addition, monthly status reports shall be submitted as part of the Discharger's monitoring report for the previous month.

VI. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring During 20:1 Dilution

The Discharger shall make provisions for the measurement of the receiving water flow at a suitable location in the creeks and determine whether a 20:1 dilution exists at the point of discharge before discharging secondary treated effluent. A dilution of 20:1 or more is required at the point of discharge. Flow measurements shall be made prior to any direct discharge to the creeks and shall continue on a daily basis until the discharged is terminated.

B. Regional Monitoring for Fish Flesh Testing

Unless otherwise directed by the Regional Water Board Executive Officer, the Discharger shall implement the approved plan for the annual sampling and testing of mercury levels in fish flesh samples collected from the Santa Ana River. The frequency of monitoring and submission of reports shall be as stipulated in the approved plan.

VII. OTHER MONITORING REQUIREMENTS

A. Water Supply Monitoring

1. In August of each year, a sample of each source of the water supplied to the sewered area shall be obtained and analyzed for total dissolved solids concentration expressed in "mg/L".

2. Monthly reports shall be submitted stating the amount (in percentage or acre-feet) supplied to the sewered area from each source of water and the resulting flow-weighted water supply quality for total dissolved solids.

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. All analytical data shall be reported with method detection limit[9] (MDLs) and with identification of either reporting level, practical quantitation levels (PQLs[10]) or limits of quantitation (LOQs).

3. To the extent possible, laboratory data for effluent samples must quantify each constituent down to the ML specified in Attachment H for priority pollutants. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

4. Discharge monitoring data shall be submitted in a format acceptable by the Regional Water Board. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Regional Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.

5. The Discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the requirements of the Order.

6. The Discharger shall submit to the Regional Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment "G" – Priority Pollutant Lists. The Discharger shall report with each sample result:

   a. The reporting level achieved by the testing laboratory; and
   b. The laboratory's current MDL, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

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9 *The standardized test procedure to be used to determine the method detection limit (MDL) is given at Appendix B, 'Definition and Procedure for the Determination of the Method Detection Limit' of 40 CFR 136.*

10 *PQL is the lowest concentration of a substance that can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) x 5 for carcinogens and MDL x 10 for noncarcinogens.*

c. For receiving water monitoring and for those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[11] is below the minimum level value specified in Attachment "I" and the Discharger cannot achieve an MDL value for that pollutant below or equal to the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

7. For non-priority pollutants monitoring, all analytical data shall be reported with identification of practical quantitation levels and with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

8. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when compliance with the time schedule has been achieved.

9. The reports for June and December shall include a roster of plant personnel, including job titles, duties, and level of State certification for each individual.

10. At any time during the term of this Order when electronic submittal of monitoring reports has become the norm, the State or Regional Water Board may notify the Discharger to discontinue submittal of hard copies of reports. When such notification is given, the Discharger shall stop submitting hard copies of required monitoring reports.

11. The Discharger shall report monitoring results for specific parameters in accordance with the following table:

Table 8. Reporting Requirements

Parameter	Measurement
Flow	Daily total flow
pH	Daily High and daily low
Total Residual Chlorine	Daily Maximum
Electrical Conductivity	Daily High
Turbidity	Daily maximum

11 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

12. The Discharger shall file a written report with the Regional Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of the waste treatment and/or disposal facilities.[12] The Discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy making body is adequately informed about it. The report shall include:

    a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.

    b. The Discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the treatment facilities.

    c. The Discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy. SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under Sections III through VII. Additionally, the Discharger shall report in the SMR the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit monthly, quarterly, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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[12] *The Discharger has submitted a report, in compliance with this same provision that was specified in Order No. 06-52.*

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 9. Monitoring and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date[13]
Continuous	The effective day of this Order	All	Submit with monthly SMR
Daily	The effective day of this Order	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	The effective day of this Order	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit date if that date is first day of the month	1st day of calendar month through last day of calendar month	first day of the second month following the reporting period, submit as monthly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following permit effective date	January 1 through March 31 samples are collected in January; April 1 through June 30; samples are collected in April; July 1 through September 30; samples are collected in July; October 1 through December 31; samples are collected in October	first day of the second month following the reporting period, submit with monthly SMR
Semiannually	Closest of January 1 or July 1 following permit effective date	January 1 through June 30 July 1 through December 31	first day of the second month following the reporting period, submit with monthly SMR
Annually	The effective day of this Order	January 1 through December 31	April 1 each year

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The *estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

[13] *Should the due date fall on a weekend or holiday, the due date shall be extended to the next work day.*

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs (with an original signature) when required by subsection B.1 above in accordance with the following requirements:

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

   b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify any instances of non-compliance with the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified instances of non-compliance must include a description of the requirement that was not complied with and a description of the event.

   c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

      California Regional Water Quality Control Board
      Santa Ana Region
      3737 Main Street, Suite 500
      Riverside, CA 92501-3348

6. By April 1 of each year, the Discharger shall submit an annual report to the Regional Water Board. The annual report shall include the following:

   a. Tabular and graphical summaries of the monitoring data obtained during the previous year;
   b. A discussion of the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements;
   c. A summary of the quality assurance (QA) activities for the previous year; and

d. For priority pollutant constituents that do not have effluent limitations but are required to be monitored, the Discharger shall evaluate the monitoring data obtained during the previous year and determine whether detected constituents are at levels that would warrant reopening the permit to include effluent limitations for such constituent(s). To conduct this evaluation, the concentration of detected constituents shall be compared to the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant[14] in 40 CFR 131.38[15]). For metals and selenium, site-specific translators approved by the Regional Board may be applied in this evaluation. The Discharger shall include a discussion of the corrective actions taken or planned to address values above receiving water objectives.

C. Discharge Monitoring Reports (DMRs)

1. As described in Section VIII.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

   State Water Resources Control Board
   Discharge Monitoring Report Processing Center
   Post Office Box 671
   Sacramento, CA 95812

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated or modified cannot be accepted.

   Regional Administrator
   U. S. Environmental Protection Agency
   Region 9 – Attention WTR – 7
   75 Hawthorne Street
   San Francisco, CA 94105

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14 *For those priority pollutants without specified criteria values, accelerated monitoring is not required.*

15 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations*

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical 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 this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. DISCHARGER/FACILITY INFORMATION

The following table summarizes administrative information related to the Facility.

Table 1. Discharger/Facility Information

WDID	8 362375001
Discharger	Colton/San Bernardino Regional Tertiary Treatment & Water Reclamation Authority (CSBRTTWRA)
Discharger Legally Responsible Officer	Stacy R. Aldstadt, President (909) 384-5091
Mailing Address	300 North "D" Street, San Bernardino, CA 92418-0001
Name of Facility	Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) Facility
Facility Address	1990 Aqua Mansa Road, Colton, CA 92324
Facility Contact	Jennifer Shepardson, Director of Environmental & Regulatory Compliance (909) 384-5063
Billing Address	399 Chandler Place, San Bernardino, CA 92408
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Not Required
Reclamation Requirements	N
Facility Permitted Flow	64 mgd with extracted groundwater
Facility Design Flow	40 MGD, influent flow

Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority (hereinafter Discharger, or CSBRTTWRA) is the owner of Regional Tertiary Treatment Rapid Infiltration and Extraction (RIX) Facility (hereinafter Facility, or RIX Facility). The City of San Bernardino Municipal Water Department, as a member of CSBRTTWRA, is the operator of the Facility.

The Facility discharges tertiary treated wastewater to Reach 4 of the Santa Ana River, a water of the United States. The discharge is currently regulated by Order No. R8-2006-0052, which expired on December 1, 2011. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on April 21, 2011. Since the Discharger submitted a timely application for renewal of the Order, the terms and conditions of Order R8-2006-0052 have been automatically continued and remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

1. Facility Background

The Colton/San Bernardino Regional Tertiary Treatment and Water Reclamation Authority was formed by a resolution on August 2, 1994 between the cities of Colton and San Bernardino. It is a joint powers agency with the responsibilities to construct, operate, use and maintain the tertiary wastewater treatment and disposal systems. The RIX Facility provides tertiary equivalent treatment to secondary treated wastewater effluent from the secondary treatment facilities of the cities of Colton and San Bernardino. The RIX Facility is owned jointly by the Cities of San Bernardino (80%) and Colton (20%).

On March 29, 1996, discharges to and from the full scale 40 million gallons per day (mgd) capacity RIX Facility commenced. The RIX Facility, which covers an approximate area of eighty seven (87) acres, is located at 1990 West Agua Mansa Road in the Colton area of San Bernardino County. The RIX Facility provides tertiary treatment for secondary treated wastewater from the City of Colton's and the City of San Bernardino's wastewater treatment plants.

2. Design Characteristics

Currently onsite are one 7.2 mgd conventional tertiary sand filter (DynaSand), two 5.5 mgd conventional tertiary cloth filters (AquaDisk),10 percolation ponds which vary in size, five banks of UV disinfection, 18 containment wells and 13 relief wells. On-site extraction wells are located within and down-gradient of the percolation basins. Groundwater monitoring wells are located within the same area. The 7.2 mgd conventional tertiary sand filter was constructed and placed into service in 2000 to augment treatment capacity during wet weather conditions. The two 5.5 mgd conventional tertiary cloth filters were placed in service in 2008 for the same purpose.

The RIX treatment process utilizes in-situ native soil filtration by applying the secondary treated wastewater to a series of shallow earthen basins on a rotational basis so that basins can be operated on alternately wet and dry cycles. As the secondary effluent percolates through the unsaturated soil media to the groundwater table, physical, biological and chemical processes take place within the soil structure. As a result, dissolved organic matter and suspended solids in the secondary effluent are significantly reduced, resulting in a water quality equivalent to that produced by conventional tertiary filtration systems. In addition, pathogens and some chemical constituents, such as nitrogen and carbon, are also reduced. Once the wastewater is filtered through the soil, it is pumped and extracted along with some native groundwater underlying the percolation basins. Approximately, an annual average of 33 mgd of secondary treated effluent (27 mgd from the City of San Bernardino and 6 mgd from the City of Colton) are percolated daily at the site. The percolated wastewater is then extracted together with more than 10 percent of the native groundwater. This over-extraction is intended to ensure percolation rates are maintained. The extracted groundwater, together with the filtered water from the conventional tertiary filters (Dynasand and AquaDisk), is then channeled to flow through UV disinfection banks prior to discharging to the Santa Ana River, Reach 4.

The Facility is designed to treat an influent flow rate of up to 40 mgd. In the last three calendar years, the highest annual average daily influent flow rate was 27.9 mgd. The annual average effluent flow rate was 33.2 mgd in 2012. Effluent flows are higher than influent flows because the effluent includes over-extracted groundwater. The effluent UV disinfection structure is designed for 64 MGD capacity.

Attachment B provides a vicinity map of the Facility. Attachment C provides a flow schematic of the treatment system at this Facility.

B. Discharge Points and Receiving Waters

1. Discharge Points

The Discharger discharges treated wastewater at Discharge Point (DP) 001 to Reach 4 of Santa Ana River, at latitude 34°02'28 and longitude 117°21'14.8, between La Cadena Avenue and Riverside Avenue in Colton.

2. Stormwater

There is no offsite discharge of stormwater runoff from the Facility. Therefore, no stormwater requirements are included in this Order.

3. Receiving Waters

a. Surface Waters: In 2012, an average of about 33.2 mgd of treated wastewater from this Facility was discharged through DP 001 to Reach 4 of the Santa Ana River. The Santa Ana River is a water of the U.S. The discharge area also overlies the Riverside-A Groundwater Management Zone.

b. Groundwater: DP 001 overlies the Riverside A Groundwater Management Zone. Discharges to Reach 4 of the Santa Ana River can also affect other, downgradient, groundwater management zones.

The Facility location maps and treatment flow schematics are shown in Attachments B and C.

III. COMPLIANCE SUMMARY

Based on a review of effluent monitoring data submitted by the Discharger, the wastewater discharged from the RIX Facility was generally in compliance with the effluent limitations specified in the current waste discharge requirements, Order No. R8-2006-0052, with the exception of some random violations of the coliform limits. On May 18, 2007, the Regional Water Board issued Mandatory Penalty Complaint Order No. R8-2007-0028 to the Discharger that assessed a $57,000 penalty addressing 19 violations that occurred between July 2003 through December 2006. This penalty was paid and no additional penalties have been assessed.

IV. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to Chapter 5.5, Division 7 of the California Water Code (commencing with Section 13370) and Section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA). This Order serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260). This Order shall also serve as an NPDES permit for point source discharges from the RIX Facility to surface waters..

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt waste discharge requirements that will serve as an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 et.seq.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Santa Ana Basin (hereinafter Basin Plan) and this Basin Plan became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 (Sources of Drinking Water Policy) requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies. Based on the exception criteria specified in Resolution No. 88-63, the Regional Board excepted from the municipal and domestic supply beneficial use, Reach 5 of the Santa Ana River (downstream of Orange Avenue in the City of Redlands) and downstream reaches of the River.

   On January 22, 2004, the Regional Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The State Water Resources Control Board and Office of Administrative Law (OAL) approved the N/TDS Amendment on September 30, 2004 and December 23, 2004, respectively. On June 20, 2007, the USEPA approved the surface water standards components of the N/TDS Amendment. Effluent limitations for TDS and TIN in this Order are based on applicable Total Inorganic Nitrogen (TIN) and TDS wasteload allocations, adopted and now in effect as part of the N/TDS Amendment.

   As previously discussed, the Facility discharges wastewater from a single discharge point. The designated beneficial uses of receiving waters affected by the discharge from the Facility are as follows:

Table 2. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Reach 4 of Santa Ana River (and downstream Reaches)	Present or Potential: Groundwater recharge (GWR), water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, and wildlife habitat (WILD)
	Riverside-A Groundwater management zone	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
	Downgradient groundwater management zones	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

Requirements of this Order implement the Basin Plan.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised State and Tribal water quality standards become effective for CWA purposes (40 CFR 131.21, 65 FR 24641, April 27, 2000). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. **Antidegradation Policy.** 40 CFR 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. 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 must be consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

7. **Monitoring and Reporting Requirements.** Sections 13267 and 13383 of the CWC authorize the Regional Water Board to require technical and monitoring reports. 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement State and federal requirements. This MRP is provided in Attachment E.

V. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations; 40 CFR 122.44(a) requires that permits include applicable technology-based limitations and standards, and 40 CFR 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

The discharge prohibitions are based on the Federal Clean Water Act, Basin Plan, State Water Resources Control Board's plans and policies, U.S. Environmental Protection Agency guidance and regulations, and previous permit Order No. R8-2006-0052 provisions and are consistent with the requirements set for other discharges regulated by NPDES permits adopted by the Regional Water Board.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR Part 133 and/or Best Professional Judgment (BPJ) in accordance with 40 CFR125.3.

Regulations promulgated in 40 CFR 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in waste discharge requirements based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator. Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR Part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD5), total suspended solids (TSS), and pH.

2. Applicable Technology-Based Effluent Limitations

This Facility meets the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, total suspended solids and removal rate, as summarized in Table 3, below. These effluent limitations are included to allow secondary treated wastewater discharge under conditions of 20:1 dilution provided by natural flow in the Santa Ana River.

Table 3. Summary of Technology-based Effluent Limitations under 20:1 Dilution

Constituent	Average Weekly (mg/L)	Average Monthly (mg/L)	Average Monthly Removal Rate %
Biochemical Oxygen Demand, 5-day 20°C	45	30	85
Total Suspended Solids	45	30	85

As noted in section V.C.2.d., below, tertiary treatment is required to protect beneficial uses of the Santa Ana River when 20:1 dilution conditions are not present. During these conditions, the technology-based limits, which are based on BPJ for levels achievable with tertiary treatment, are summarized in the table below are applicable.

Table 4. Summary of Technology-Based Effluent Limits for Tertiary Treatment

Constituent	Average Weekly (mg/L)	Average Monthly (mg/L)	Average Monthly Removal Rate %
Biochemical Oxygen Demand, 5-day 20°C	30	20	85
Total Suspended Solids	30	20	85

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

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 a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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 other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Development of WQBELs

a. **The Basin Plan:** The Basin Plan specifies narrative and numeric water quality objectives applicable to surface water as follows.

Table 5. Summary of Applicable Basin Plan Water Quality Objectives

Constituents	Basis for Limitations
Ammonia Nitrogen	Ammonia dissociates under certain conditions to the toxic un-ionized form. Thus, ammonia discharges to surface water pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The Basin Plan specifies total ammonia and un-ionized ammonia objectives and an effluent limit of 4.5 mg/L for discharges to Santa Ana River, Reach 4.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of the Hydrogen Ion concentration in the water. Extreme pH levels can have adverse effects on aquatic biota and can corrode pipes and concrete. The Basin Plan specifies that the pH in inland surface waters shall not be depressed below 6.5, nor raised above 8.5 as a result of controllable water quality factors.
Total Chlorine Residual	Chlorine and its reaction products are toxic to aquatic life. To protect aquatic life, the Basin Plan specifies that for wastewater discharged into inland surface waters the chlorine residual should not exceed 0.1 mg/L
Total Dissolved Solids	The Basin Plan specifies a wasteload allocation of 550 mg/L for Total Dissolved Solids for discharges from the Facility
Total Inorganic Nitrogen	The Basin Plan specifies a wasteload allocation of 10 mg/L for Total Inorganic Nitrogen for discharges from the Facility

In accordance with 40 CFR 122.45(d), there may be instances in which the basis for a limit for a particular continuous discharge may be impracticable to be stated as a maximum daily, average weekly, or average monthly effluent limitation. The Regional Water Board has determined that it is not practicable to express TDS and TIN effluent limitations as average weekly and average monthly effluent limitations because the TDS and TIN objectives in the Basin Plan were established primarily to protect the underlying groundwater. Consequently, a 12-month average period is believed to be more appropriate.

b. **TDS and TIN Limits:** As noted above, the TDS and TIN limits in this order are based on waste load allocations (WLAs) that protect the Santa Ana River. It is assumed that the WLAs are also protective of downgradient groundwater management zones (GMZs), including the Riverside-A GMZ. However, recent ambient groundwater data for the Riverside-A GMZ indicates a possible worsening of water quality. This Order requires the Discharger to conduct a study to confirm that the TDS and TIN limits of this Order, which are based on the Santa Ana River WLA, are, in fact, protective of that GMZ. This Order may be reopened if it is found that more restrictive limits or additional control measures are necessary to protect the GMZ.

c. NTR,CTR and SIP.

The National Toxics Rule, California Toxics Rule, and State Implementation Policy specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis to determine the need for effluent limitations for priority and non-priority pollutants.

d. Requirement to meet 2.2 total coliform bacteria limit in the effluent.

Article 3, Section 60305 of Title 22, Chapter 3, "Use of Recycled water for impoundments" of the California Code of Regulations specifies that recycled water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater (tertiary treated). The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The California Department of Public Health (CDPH) has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The CDPH has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

The Santa Ana River, Reach 4 is not a "nonrestricted recreational impoundment," nor is "recycled water[1]" being used as a supply source for the River pursuant to the definitions in Title 22. However, except during major storms, most of the flow in the River is composed of treated municipal wastewater discharges. The River is used for water contact recreation and, accordingly, is designated REC-1 (water contact beneficial use). People recreating in the River face an exposure similar to those coming in contact with recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the River as would be required for the use of recycled water in a nonrestricted recreational impoundment. Thus, this Order specifies requirements based on tertiary or equivalent treatment.

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1 *As defined in the Reclamation Criteria, recycled water means water which, as a result of treatment of domestic wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.*

3. Determining the Need for WQBELs for Priority pollutants

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBELs are required. The RPA considers criteria from the CTR, and when applicable, water quality objectives specified in the Basin Plan.

Sufficient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants for which effluent data were available. The RPA showed that no WQBELs for priority pollutants are warranted at this time.

4. Whole Effluent Toxicity (WET)

This Order does not specify numeric WET limits but includes a narrative effluent limit and requires chronic toxicity monitoring.

D. Summary of Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

2. Satisfaction of Antidegradation Policy

Discharges in conformance with the requirements of this Order will not result in a lowering of water quality and therefore conform to antidegradation requirements specified in Resolution No. 68-16, which incorporates the federal antidegradation policy at 40 CFR 131.12 where, as here, it is applicable. As noted above, the Discharger is required to cooperate with and participate in any study undertaken by the Regional Board or the Basin Monitoring Program Taskforce to determine the effects of discharges on the Riverside- A GMZ. If it is determined that the RIX discharge is substantially contributing to the degradation of that groundwater management zone, this Order may be reopened to address the issue.

3. Stringency of Requirements for Individual Pollutants

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Apart from certain surface water standards changes resulting from the N/TDS Basin Plan amendment that do not materially affect the quality requirements for the discharges regulated by this Order, all beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. Summary of Final Effluent Limitations:

Table 6. Summary of Effluent Limitations at Discharge Point 001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly or as noted herein	Average Weekly	Max Daily	Instantaneous Minimum	Instantaneous Maximum	
BOD_5	mg/L	20	30	--	--	--	TB
Total Suspended Solids	mg/L	20	30	--	--	--	TB
Total Residual Chlorine	mg/L	--	--	--	--	0.1	BP
TDS	mg/L	550 (12-M avg)	--	--	--	--	BP
Ammonia-Nitrogen	mg/L	4.5	--	--	--	--	BP
Total Inorganic Nitrogen	mg/L	10 (12-M avg)	--	--	--	--	BP
pH	Std. unit	--	--	--	6.5	8.5	BP
Coliform	MPN	--	2.2 Median of last 7 days	--	--	--	Title 22

Notes: TB = Technology-Based, BP= Basin Plan, Title 22= Section 60305, Article 3, Chapter 3, Title 22, CCR

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan.

B. Groundwater

Not applicable at this time. However, this Order may be reopened if it is found that the receiving water limitations are not protective of underlying groundwater.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. 40 CFR 122.48 also requires all NPDES permits to specify recording and reporting of monitoring results. The Monitoring and Reporting Program (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 facility.

A. Influent Monitoring

Since the influent to the Facility is secondary treated wastewater from two other facilities, only flow is required to be measured.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard. This Order requires the discharger to conduct accelerated monitoring for those constituents that are detected in the annual priority pollutant scan.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) is an indicator of the toxic effects of the aggregate mixture of pollutants in the effluent on receiving waters. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach implements the narrative "no toxics in toxic amounts" criterion. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a shorter time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, this Order includes a narrative effluent limit for toxicity, and requires the Discharger to conduct chronic toxicity testing. In addition, the Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity identification evaluation (TIE) studies.

This Order requires the Discharger to conduct chronic toxicity testing of the effluent on a monthly basis. The Order also requires the Discharger to conduct an Initial Investigation Toxicity Reduction Evaluation (IITRE) program when either the two-month median of toxicity test results exceeds 1 TUc or any single test exceeds 1.7 TUc for survival endpoint. Based on the results of this investigation program and at the discretion of the Executive Officer, a more rigorous Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) may be required. A re-opener provision is included in the Order to incorporate a chronic toxicity effluent limitation if warranted by the toxicity test results.

D. Receiving Water Monitoring

For discharges of secondary treated and disinfected effluent when 20:1 or more dilution is provided by the River at the point of discharge, the Order requires the Discharger to establish a sampling station(s) at a suitable location(s) where the flow[2] in the River at the point of discharge can be determined. The Order also requires that flow measurements in the River are made prior to any direct discharge to the River and shall continue on a daily basis until the discharge is terminated.

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2 *Exclusive of discharges to surface waters from upstream publicly owned treatment works.*

E. Other Monitoring Requirements

Water Supply Monitoring - The Discharger is required to collect a sample of each source of water supplied and analyze for total dissolved solids. The result of this monitoring will enable the discharger to show compliance with TDS limitations in the Order.

VIII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D.

40 CFR 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 122.41(j)(5) and (k)(2) because the enforcement authority under the California Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR 122.44(c) and 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. This Order recognizes the Discharger's participation in the comprehensive mercury investigation program currently being conducted by a group of Santa Ana River system dischargers. If the Discharger discontinues its involvement with this comprehensive program, the Discharger is required, within 60 days of that date, to submit for the approval of the Executive Officer its plan for the annual testing of mercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the discharge point. Upon approval, the Discharger is required to implement the plan.

b. This Order requires the Discharger to submit a report that details the manner in which sampling, monitoring and reporting will be performed as required in the Order. This is a standard requirement for all POTW dischargers within the Region.

c. This Order requires the Discharger to cooperate with and Participate in any study undertaken by the Regional Board or the Basin Monitoring Program Taskforce to reevaluate the Waste Load Allocations for TDS and TIN.

d. This Order requires the Discharger to develop procedures to conduct Toxicity Identification and Reduction Evaluations. This provision is based on the SIP, Section 4, Toxicity Control Provisions

3. **Best Management Practices and Pollution Prevention** - The requirements are based on the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, Section 2.4.5.1. and are applicable to POTW facilities including the Discharger.

4. **Construction, Operation, and Maintenance Specifications** - The requirements are based on requirements that were specified in the prior Order.

IX. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Santa Ana Region is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Regional Tertiary Treatment Rapid Infiltration and Extraction Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the posting of Notice of Public Hearing in the area of the discharge, in the local newspaper, and on the Regional Water Board website.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on June 28, 2013.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	July 19, 2013
Time:	9:00 A.M.
Location:	City of Loma Linda 245541 Barton Road Loma Linda, CA 92354

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address http://www.waterboards.ca.gov/santaana where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

Documents related to this Order, including comments received, are on file and may be inspected at the Regional Water Board's office at any time between 9:00 a.m. and 3:00 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (951) 782-4130.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this Facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Najah N. Amin at (951) 320-6263.

ATTACHMENT G - EPA PRIORITY POLLUTANT LIST

EPA PRIORITY POLLUTANT LIST					
Metals		**Acid Extractibles**		**Base/Neutral Extractibles (continuation)**	
1.	Antimony	45.	2-Chlorophenol	91.	Hexachloroethane
2.	Arsenic	46.	2,4-Dichlorophenol	92.	Indeno (1,2,3-cd) Pyrene
3.	Beryllium	47.	2,4-Dimethylphenol	93.	Isophorone
4.	Cadmium	48.	2-Methyl-4,6-Dinitrophenol	94.	Naphthalene
5a.	Chromium (III)	49.	2,4-Dinitrophenol	95.	Nitrobenzene
5b.	Chromium (VI)	50.	2-Nitrophenol	96.	N-Nitrosodimethylamine
6.	Copper	51.	4-Nitrophenol	97.	N-Nitrosodi-N-Propylamine
7.	Lead	52.	3-Methyl-4-Chlorophenol	98.	N-Nitrosodiphenylamine
8.	Mercury	53.	Pentachlorophenol	99.	Phenanthrene
9.	Nickel	54.	Phenol	100.	Pyrene
10.	Selenium	55.	2, 4, 6 – Trichlorophenol	101.	1,2,4-Trichlorobenzene
11.	Silver		**Base/Neutral Extractibles**		**Pesticides**
12.	Thallium	56.	Acenaphthene	102.	Aldrin
13.	Zinc	57.	Acenaphthylene	103.	Alpha BHC
	Miscellaneous	58.	Anthracene	104.	Beta BHC
14.	Cyanide	59.	Benzidine	105.	Delta BHC
15.	Asbestos (not required unless requested)	60.	Benzo (a) Anthracene	106.	Gamma BHC
16.	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61.	Benzo (a) Pyrene	107.	Chlordane
	Volatile Organics	62.	Benzo (b) Fluoranthene	108.	4, 4' - DDT
17.	Acrolein	63.	Benzo (g,h,i) Perylene	109.	4, 4' - DDE
18.	Acrylonitrile	64.	Benzo (k) Fluoranthene	110.	4, 4' - DDD
19.	Benzene	65.	Bis (2-Chloroethoxy) Methane	111.	Dieldrin
20.	Bromoform	66.	Bis (2-Chloroethyl) Ether	112.	Alpha Endosulfan
21.	Carbon Tetrachloride	67.	Bis (2-Chloroisopropyl) Ether	113.	Beta Endosulfan
22.	Chlorobenzene	68.	Bis (2-Ethylhexyl) Phthalate	114.	Endosulfan Sulfate
23.	Chlorodibromomethane	69.	4-Bromophenyl Phenyl Ether	115.	Endrin
24.	Chloroethane	70.	Butylbenzyl Phthalate	116.	Endrin Aldehyde
25.	2-Chloroethyl Vinyl Ether	71.	2-Chloronaphthalene	117.	Heptachlor
26.	Chloroform	72.	4-Chlorophenyl Phenyl Ether	118.	Heptachlor Epoxide
27.	Dichlorobromomethane	73.	Chrysene	119.	PCB 1016
28.	1,1-Dichloroethane	74.	Dibenzo (a,h) Anthracene	120.	PCB 1221
29.	1,2-Dichloroethane	75.	1,2-Dichlorobenzene	121.	PCB 1232
30.	1,1-Dichloroethylene	76.	1,3-Dichlorobenzene	122.	PCB 1242
31.	1,2-Dichloropropane	77.	1,4-Dichlorobenzene	123.	PCB 1248
32.	1,3-Dichloropropylene	78.	3,3'-Dichlorobenzidine	124.	PCB 1254
33.	Ethylbenzene	79.	Diethyl Phthalate	125.	PCB 1260
34.	Methyl Bromide	80.	Dimethyl Phthalate	126.	Toxaphene
35.	Methyl Chloride	81.	Di-n-Butyl Phthalate		
36.	Methylene Chloride	82.	2,4-Dinitrotoluene		
37.	1,1,2,2-Tetrachloroethane	83.	2-6-Dinitrotoluene		
38.	Tetrachloroethylene	84.	Di-n-Octyl Phthalate		
39.	Toluene	85.	1,2-Dipenylhydrazine		
40.	1,2-Trans-Dichloroethylene	86.	Fluoranthene		
41.	1,1,1-Trichloroethane	87.	Fluorene		
42.	1,1,2-Trichloroethane	88.	Hexachlorobenzene		
43.	Trichloroethylene	89.	Hexachlorobutadiene		
44.	Vinyl Chloride	90.	Hexachlorocyclopentadiene		

ATTACHMENT H – MINIMUM LEVELS

MINIMUM LEVELS IN PPB (µg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in this Attachment that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in the PQL Table.

ML Usage: The ML value in this Attachment represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.
Note: chemical names in parenthesis and italicized is another name for the constituent.

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1 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2 - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

2 *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

3 *Phenol by colorimetric technique has a factor of 1.*

4 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

5 *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

ATTACHMENT I – TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

The values shown in the table below are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.38[6]). For hardness dependent metals, the hardness value used is 208 mg/L and for pentachlorophenol, the pH value used is 7.5 standard units.

	Constituent	µg/L
1	Antimony	2150
2	Arsenic	75
3	Beryllium	
4	Cadmium	5.0
5a	Chromium III	189
5b	Chromium VI	5.7
6	Copper	21.8
7	Lead	16.9
8	Mercury	0.026
9	Nickel	48
10	Selenium	2.5
11	Silver	7.2
12	Thallium	
13	Zinc	111
14	Cyanide	2.6
15	Asbestos	--
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	390
18	Acrylonitrile	0.33
19	Benzene	36
20	Bromoform	180
21	Carbon Tetrachloride	2.2
22	Chlorobenzene	10500
23	Chlorodibromomethane	17
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	
27	Dichlorobromomethane	23
28	1,1-Dichloroethane	--
29	1,2-Dichloroethane	50
30	1,1-Dichloroethylene	1.6
31	1,2-Dichloropropane	20
32	1,3-Dichloropropylene	850
33	Ethylbenzene	14500
34	Methyl Bromide	2000
35	Methyl Chloride	--
36	Methylene Chloride	800
37	1,1,2,2-Tetratchloroethane	5.5

	Constituent	µg/L
38	Tetratchloroethylene	4.43
39	Toluene	100000
40	1,2,-Trans-dichloroethylene	70000
41	1,1,1-Trichloroethane	--
42	1,1,2-Trichloroethane	21
43	Trichloroethylene	41
44	Vinyl Chloride	263
45	2-Chlorophenol	200
46	2,4-Dichlorophenol	395
47	2,4-Dimethylphenol	1150
48	4,6-Dinitro-O-cresol	383
49	2,4-Dinitrophenol	7000
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	Pentachlorophenol	4.1
54	Phenol	2300000
55	2,4,6-Trichlorophenol	3.3
56	Acenapthene	1350
57	Acenapthylene	--
58	Anthracene	55000
59	Benzidine	0.00027
60	Benzo (a) anthracene	0.025
61	Benzo (a) pyrene	0.025
62	Benzo (b) fluoranthene	0.025
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.025
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.7
67	Bis (2-Chloroisopropyl) ether	85000
68	Bis (2-ethyhexyl) phthalate	3
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	2600
71	2- Chloronapthalene	2150
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.025
74	Dibenzo (a,h) anthracene	0.025
75	1,2-Dichlorobenzene	8500

6 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations*

ATTACHMENT J -Continued

	Constituent	µg/L
76	1,3-Dichlorobenzene	1300
77	1,4-Dichlorobenzene	1300
78	3,3-Dichlorobenzidine	0.039
79	Diethyl phthalate	60000
80	Dimethyl phthalate	1450000
81	Di-N-butyl phthalate	6000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7000
88	Hexachlorobenzene	0.00039
89	Hexachlorobutadiene	25
90	Hexachlorocyclopentadiene	8500
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	Naphthalene	--
95	Nitrobenzene	950
96	N-Nitrosodimethylamine	4.05
97	N-Nitrosodi-N-propylamine	0.7
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--
100	Pyrene	5500
101	1,2,4 -Trichlorobenzene	--
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.0315
106	BHC Delta	--
107	Chlordane	0.0003
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.41
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.000055
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.00038