

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

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**ORDER R4-2015-XXX
NPDES NO. CA0064068**

**WASTE DISCHARGE REQUIREMENTS
FOR THE LINCOLN AVENUE WATER COMPANY
SOUTH COULTER SURFACE WATER TREATMENT PLANT**

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Lincoln Avenue Water Company
Name of Facility	South Coulter Surface Water Treatment Plant
Facility Address	3939 Chaney Trail
	Altadena, CA 91001
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Filter backwash, filter-to-waste, and settling basin drainage	34°12'46"	-118°08'43"	Unnamed tributary to the Arroyo Seco

Table 3. Administrative Information

This Order was adopted on:	September 10, 2015
This Order shall become effective on:	November 1, 2015
This Order shall expire on:	October 31, 2020
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date
The U.S. Environmental Protection Agency and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Minor discharge

June 24, 2015

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on July 9, 2015.

Samuel Unger, P.E., Executive Officer

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CONTENTS

I.	Facility Information	4
II.	Findings	4
III.	Discharge Prohibitions	4
IV.	Effluent Limitations and Discharge Specifications	5
	A. Effluent Limitations – Discharge Point 001	5
	1. Final Effluent Limitations – Discharge Point 001	5
V.	Receiving Water Limitations	7
	A. Surface Water Limitations	7
	B. Groundwater Limitations	8
VI.	Provisions	8
	A. Standard Provisions	8
	B. Monitoring and Reporting Program (MRP) Requirements	11
	C. Special Provisions	11
	1. Reopener Provisions	11
	2. Special Studies, Technical Reports and Additional Monitoring Requirements	11
	3. Best Management Practices and Pollution Prevention	11
	4. Construction, Operation and Maintenance Specifications—Not Applicable	12
	5. Special Provisions for Municipal Facilities (POTWs only)—Not Applicable	12
	6. Other Special Provisions—Not Applicable	12
	7. Compliance Schedules—Not Applicable	12
VII.	Compliance Determination	12

TABLES

Table 1.	Discharger Information	1
Table 2.	Discharge Location	1
Table 3.	Administrative Information	1
Table 4.	Effluent Limitations for Discharge Point 001	5

ATTACHMENTS

Attachment A – Definitions	A-1
Attachment B – Map	B-1
Attachment C – Flow Schematic	C-1
Attachment D – Standard Provisions	D-1
Attachment E – Monitoring and Reporting Program	E-1
Attachment F – Fact Sheet	F-1
Attachment G – Storm Water Pollution Prevention Plan Requirements	G-1
Attachment H – State Water Board Minimum Levels	H-1
Attachment I – List of Priority Pollutants	I-1
Attachment J – Summary Of Reasonable Potential Analysis	J-1

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I. FACILITY INFORMATION

Information describing the South Coulter Surface Water Treatment Plant (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

- A. Legal Authorities.** This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued 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 Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.
- B. 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. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- D. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- E. 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.

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order R4-2009-0103 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger is authorized to discharge from the identified facility and outfalls into waters of the United States and shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

- A.** Wastes shall be limited to a maximum of 0.0185 million gallons per day (MGD) of filter backwash, filter-to-waste, and settling basin drainage as described in the findings. The discharge of wastes from accidental spills or other sources is prohibited.
- B.** Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, the Arroyo Seco, or other waters of the State, are prohibited.

- C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.
- D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board (State Water Board) as required by the Federal CWA and regulations adopted thereunder.
- F. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA and amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- G. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- H. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 4. Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	--	--
	lbs/day ¹	3.1	4.6	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day ¹	1.5	2.3	--	--
pH	s.u.	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day ¹	7.7	12	--	--
Non-Conventional Pollutants					
Chronic Toxicity	Pass or Fail, % Effect)	Pass ⁴	Pass or % Effect <50 ⁴	--	--
Ammonia Nitrogen, Total (as N) ⁵	mg/L	2.0	3.9	--	--
	lbs/day	0.31	0.6	--	--
Chloride	mg/L	--	15	--	--
	lbs/day	--	2.3	--	--
Chlorine, Total Residual	mg/L	--	0.1	--	--
	lbs/day	--	0.015	--	--
Nitrate Nitrogen, Total (as N) ⁵	mg/L	8.0	16	--	--
	lbs/day	1.2	2.5	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Nitrite Nitrogen, Total (as N) ⁵	mg/L	1.0	2.0	--	--
	lbs/day	0.15	0.31	--	--
Nitrite plus Nitrate (as N) ⁵	mg/L	8.0	16	--	--
	lbs/day	1.2	2.5	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Sulfate	mg/L	--	40	--	--
	lbs/day	--	6.2	--	--
Sulfide, Total (as S)	mg/L	--	1.0	--	--
	lbs/day	--	0.15	--	--
Temperature	°F	--	--	--	86
Total Dissolved Solids	mg/L	--	300	--	--
	lbs/day	--	46	--	--
Turbidity	NTU	50	75	--	--
Priority Pollutants					
Cadmium, Total Recoverable, Wet Weather ⁶	µg/L	1.5	3.1	--	--
	lbs/day	0.00023	0.00048	--	--
Copper, Total Recoverable, Wet Weather ⁶	µg/L	8.5	17	--	--
	lbs/day	0.0013	0.0026	--	--
Copper, Total Recoverable, Dry Weather ⁷	µg/L	18	36	--	--
	lbs/day	0.0028	0.0056	--	--
Lead, Total Recoverable, Wet Weather ⁶	µg/L	31	62	--	--
	lbs/day	0.0048	0.0096	--	--
Lead, Total Recoverable, Dry Weather ⁷	µg/L	9.0	18	--	--
	lbs/day	0.0014	0.0028	--	--
Zinc, Total Recoverable, Wet Weather ⁶	µg/L	79	159	--	--
	lbs/day	0.012	0.025	--	--
Zinc, Total Recoverable, Dry Weather ⁷	µg/L	93	186	--	--
	lbs/day	0.014	0.03	--	--
Dichlorobromomethane	µg/L	0.56	1.12	--	--
	lbs/day	0.000086	0.00017	--	--

1. The mass limitations are based on a maximum flow of 0.0185 MGD and is calculated as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$

2. Geometric Mean.
3. Single Sample Maximum
4. The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail". The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". If the chronic toxicity result is "Fail", the percent effect has to be less than 50 to meet the chronic toxicity maximum daily effluent limitation. The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail".
5. Effluent concentrations shall not exceed levels that can be reliably maintained by the facility's applicable treatment technologies existing at the time of the permit issuance, re-issuance or modification.
6. The wet weather TMDL limits apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is equal to or greater than 500 cubic feet per second (approx. 320

MGD). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).

7. Limitations apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is less than 500 cubic feet per second (approx. 320 MGD). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).

b. Bacteria Limitations

- i. Escherichia Coli (E. coli)
 - (a) Geometric Mean
E. coli density shall not exceed 126/100 ml.
 - (b) Single Sample Maximum
E. coli density shall not exceed 235/100 ml.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period).

If any of the single sample limits are exceeded, the Regional Water Board may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance.

When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge shall not cause the following in the Arroyo Seco:

1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.
2. Surface water temperature to rise greater than 5° F above the natural temperature of the receiving waters at any time or place.
3. The concentration of dissolved oxygen to fall below 6.0 mg/L at any time, and the median dissolved oxygen concentration for any three consecutive months to be less than 80 percent of the dissolved oxygen content at saturation.
4. Exceedance of the total ammonia (as N) concentrations specified in the Regional Water Board Resolution 2007-005, adopted on June 7, 2007, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate Site-specific Objectives in Select Waterbodies in the Santa Clara, Los Angeles and San Gabriel River Watersheds*.
5. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
6. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.
7. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
8. Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for

human consumption either at levels created in the receiving waters or as a result of biological concentration.

9. Accumulation of bottom deposits or aquatic growths.
10. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
11. The presence of substances that result in increases of BOD that adversely affect beneficial uses.
12. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.
13. Alteration of turbidity, or apparent color beyond present natural background levels.
14. Damage, discolor, or formation of sludge deposits on flood control structures or facilities, or overloading of the design capacity.
15. Degradation of surface water communities and populations including vertebrate, invertebrate, and plant species.
16. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
17. Nuisance, or adversely affect beneficial uses of the receiving water.
18. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D.
2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
 - a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 C.F.R., sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
 - b. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management programs

developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

- c. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the Federal CWA and amendments thereto.
- e. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
- f. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
- g. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
- h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - i. Violation of any term or condition contained in this Order;
 - ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- i. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- j. The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and the appropriate filing fee.
- k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
- l. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
- m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify the Regional Water Board of such change and

shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.

- n. The Water Code provides that any person who violates a waste discharge requirement or a provision of the Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

- o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- p. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - i. Name and general composition of the chemical,
 - ii. Frequency of use,
 - iii. Quantities to be used,
 - iv. Proposed discharge concentrations, and
 - v. USEPA registration number, if applicable.
- r. 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.
- s. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, average monthly effluent limitation, maximum daily effluent limitation, instantaneous minimum effluent limitation, instantaneous maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (213) 576-6600 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.

- t. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Wat. Code § 1211.)

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board may revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the RPA.
- c. This Order may be reopened and modified, in accordance with the provisions set forth in 40 C.F.R., parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new MLs.
- d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Arroyo Seco.
- e. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, 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 special condition monitoring data.
- f. This Order will be reopened and modified to revise any and all of the toxicity testing provisions and effluent limitations, to the extent necessary, to be consistent with any Toxicity Plan that is subsequently adopted by the State Water Board promptly after USEPA approval of such Plan.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** The Discharger shall submit to the Regional Water Board an Initial Investigation TRE workplan (1-2 pages) within 90 days of the effective date of this permit. This plan shall describe the steps the permittee intends to follow in the event that toxicity is detected. See section V of the Monitoring and Reporting Program (Attachment E) for an overview of Toxicity Reduction Evaluation (TRE) requirements.

3. Best Management Practices and Pollution Prevention

- a. The Discharger shall submit within 90 days of the effective date of this Order:
 - i. An updated Storm Water Pollution Prevention Plan (SWPPP) that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being

discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements in Attachment G.

- ii. Updated Best Management Practices (BMPs) that entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The BMPs shall be consistent with the general guidance contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.
- iii. A Spill Contingency Plan (or substituted with an updated version of the Discharger's existing Spill Prevention Control and Countermeasure Plan).

Each plan shall cover all areas of the Facility and shall include an updated drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of storm water runoff and the discharge or hazardous waste/material; and address the feasibility of containment and/or treatment of storm water. The plans shall be reviews annually and at the same time. Updated information shall be submitted within 30 days of revision.

4. **Construction, Operation and Maintenance Specifications—Not Applicable**
5. **Special Provisions for Municipal Facilities (POTWs only)—Not Applicable**
6. **Other Special Provisions—Not Applicable**
7. **Compliance Schedules—Not Applicable**

VII. COMPLIANCE DETERMINATION

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

A. Single Constituent Effluent Limitation

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), then the Discharger is out of compliance.

B. Effluent Limitations Expressed as a Sum of Several Constituents

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

C. Effluent Limitations Expressed as a Median

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

1. If the number of measurements (n) is odd, then the median will be calculated as = $X_{(n+1)/2}$, or
2. If the number of measurements (n) is even, then the median will be calculated as = $[X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the $n/2$ and $n/2+1$ data points.

D. Multiple Sample Data

When determining compliance with an AMEL for priority pollutants and more than one sample result is available, 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:

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.

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.

E. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection 2 above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation; though the Discharger will 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 will be considered out of compliance for that calendar month. For anyone calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;

If the analytical result of a single sample monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is NO or DNQ, the median shall be the lower of the two middle values.

In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL; then the Discharger is in violation of the AMEL.

F. Maximum Daily Effluent Limitations (MDEL)

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and 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.

G. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and 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).

H. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and 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 exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

I. Median Monthly Effluent Limitation (MMEL)

If the median of daily discharges over a calendar month exceeds the MMEL for a given parameter, an alleged violation will be flagged and the Permittee will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). However, an alleged violation of the MMEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

J. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect from a single effluent concentration chronic toxicity test at the discharge instream waste concentration (IWC) using the Test of Significant Toxicity (TST) statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The null hypotheses (H_0) for the TST statistical approach is: Mean discharge IWC response $\leq 0.75 \times$ Mean control response. A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail”. The relative “Percent (%) Effect” at the discharge IWC is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in “Fail” and the “Percent Effect” is ≥ 0.50 .

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of no more than three independent chronic toxicity tests, conducted within the same calendar month and analyzed using the TST statistical approach, results in “Fail”. The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in “Fail”.

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.

Bioaccumulative

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

Carcinogenic

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

Coefficient of Variation (CV)

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

Daily Discharge

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

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

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

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the Reporting Level (RL), but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the

dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

EC25

EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g., death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA)

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

Enclosed Bays

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

Estimated Chemical Concentration

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

Estuaries

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

Inland Surface Waters

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

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Maximum Daily Effluent Limitation (MDEL)

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

measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

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

Method Detection Limit (MDL)

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

Minimum Level (ML)

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

Mixing Zone

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

Not Detected (ND)

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

Persistent Pollutants

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

Pollutant Minimization Program (PMP)

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

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 State Water Resources Control Board (State Water Board) or Regional Water Board.

Reporting Level (RL)

The RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the ML's included in this Order, including an additional factor if applicable as discussed herein. The ML's 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

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

Standard Deviation (σ)

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

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

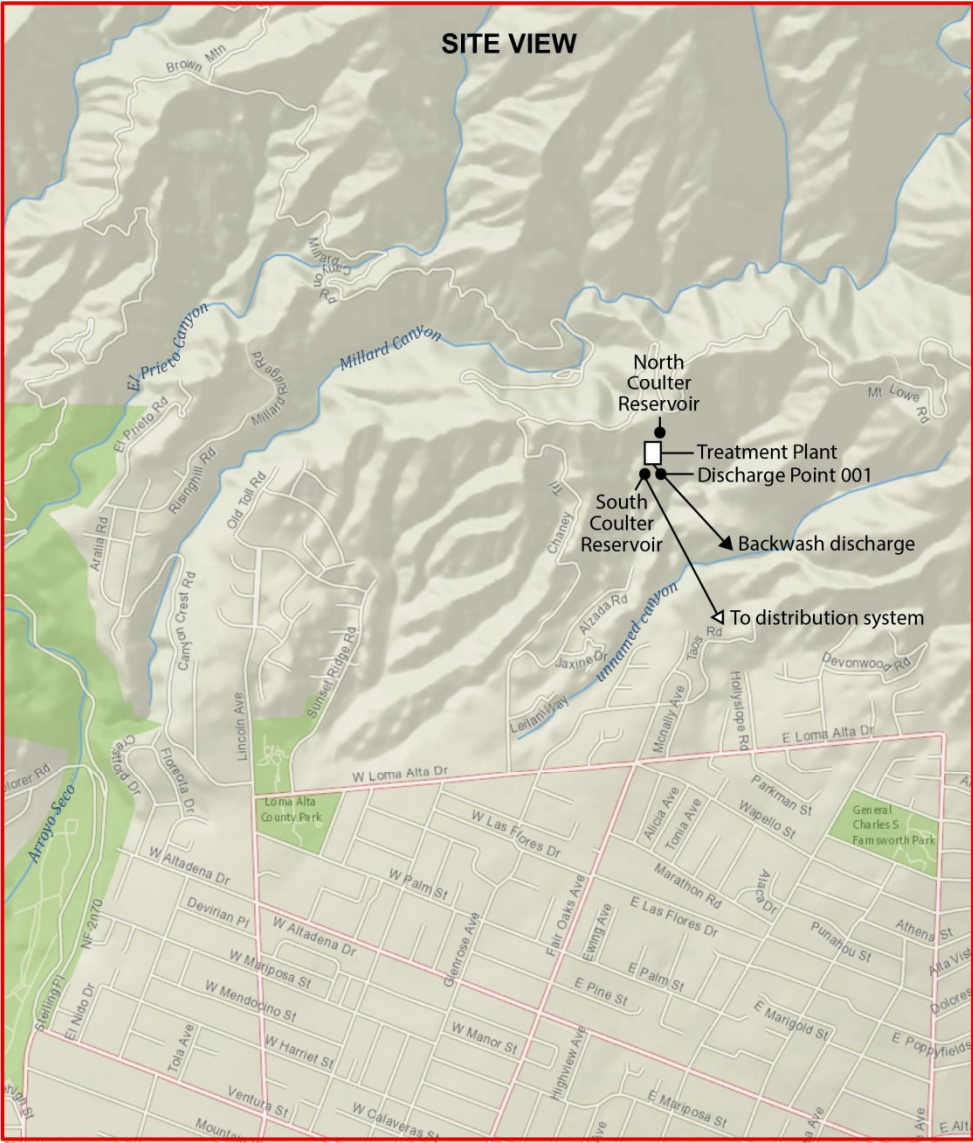
n is the number of samples.

Toxicity Reduction Evaluation (TRE)

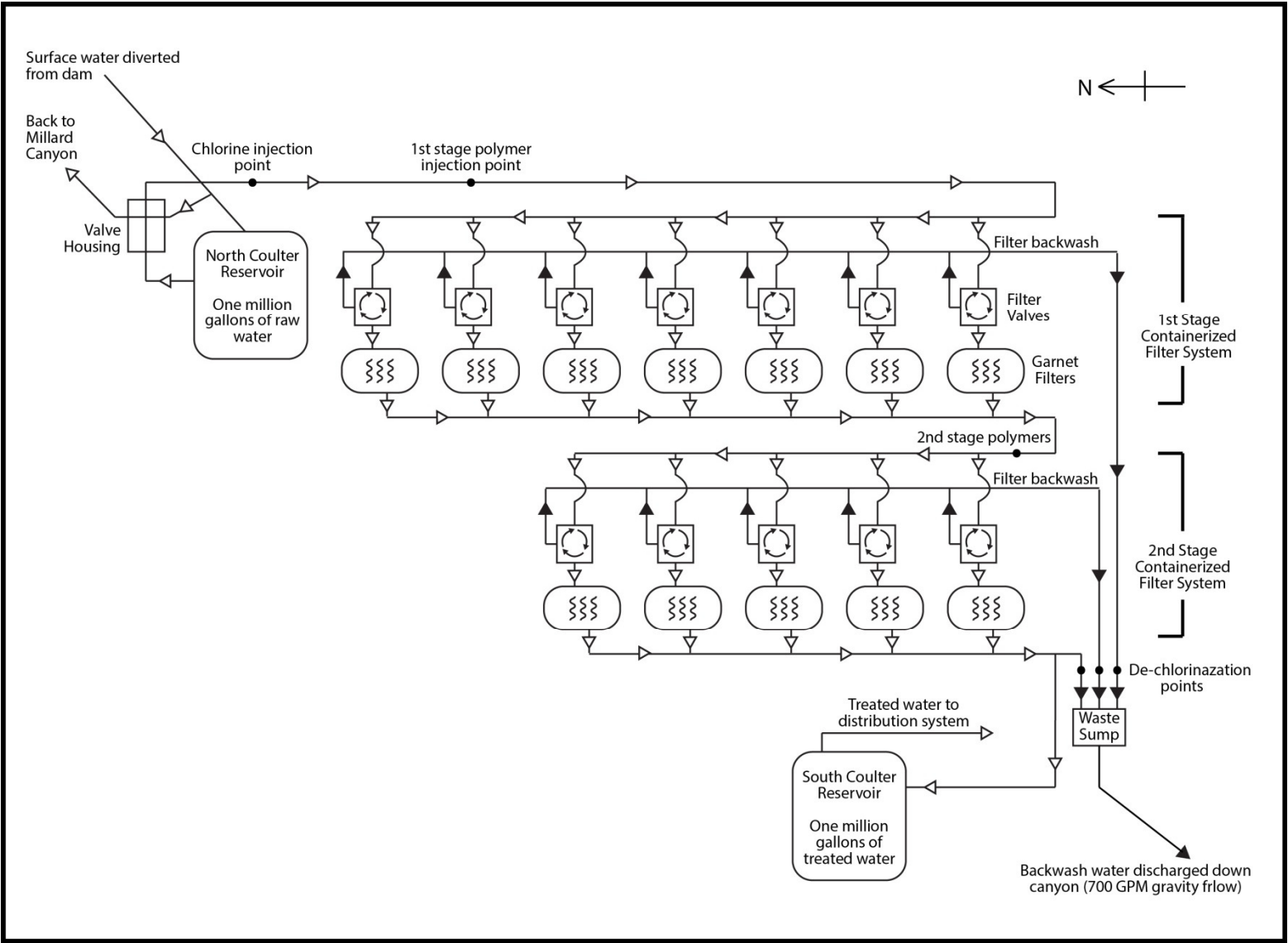
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection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

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ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



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ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

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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 (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(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 C.F.R. § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

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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 C.F.R. § 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 C.F.R. § 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 Discharger. 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(b).)

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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 Water Code. (40 C.F.R. §§ 122.41(l)(3), 122.61.)

III. STANDARD PROVISIONS – MONITORING

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- B.** Monitoring results must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. §§ 122.41(j)(4), 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 C.F.R. 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 C.F.R. § 122.41(j)(2).)
- B.** Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
 - 3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
 - 4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
 - 5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
 - 6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)
- C.** Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):
 - 1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
 - 2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and

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reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

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 C.F.R. § 122.41(k).)
2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)
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 C.F.R. § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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 and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 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

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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 C.F.R. § 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 C.F.R. § 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 State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 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 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 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 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

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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 C.F.R. § 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 section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or
2. 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 C.F.R. § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 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 C.F.R. § 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, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 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 Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties

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of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 C.F.R. § 122.41(a)(2)] [Water Code sections 13385 and 13387].

- C. Any person may be assessed an administrative penalty by the Regional Water Board for violating Section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 C.F.R. § 122.41 (a)(3)].
- D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 C.F.R. § 122.410(5)].
- E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 C.F.R. § 122.41 (k)(2)].

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
 - a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
 - b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

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- c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
 - d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
- 2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):
 - a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));
 - b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
 - d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

T
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N
T
A
T
I
V
E

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

I.	General Monitoring Provisions	E-2
II.	Monitoring Locations	E-4
III.	Influent Monitoring Requirements—Not Applicable	E-5
IV.	Effluent Monitoring Requirements	E-5
	A. Monitoring Location EFF-001A	E-5
	B. Monitoring Location INT-001	E-6
V.	Whole Effluent Toxicity Testing Requirements	E-7
VI.	Land Discharge Monitoring Requirements – Not Applicable	E-10
VII.	Recycling Monitoring Requirements – Not Applicable	E-10
VIII.	Receiving Water Monitoring Requirements	E-10
	A. Monitoring Location RSW-001	E-10
	B. Monitoring Location RSW-002	E-10
	C. Monitoring Location RSW-003	E-11
IX.	Other Monitoring Requirements – Not applicable	E-11
X.	Reporting Requirements	E-11
	A. General Monitoring and Reporting Requirements	E-11
	B. Self-Monitoring Reports (SMRs)	E-11
	C. Discharge Monitoring Reports (DMRs) – Not Applicable	E-13
	D. Other Reports	E-13

TABLES

Table E-1.	Monitoring Station Locations	E-5
Table E-2.	Effluent Monitoring at EFF-001A.....	E-5
Table E-3.	Effluent Monitoring at INT-001	E-7
Table E-4.	Receiving Water Monitoring Requirements – Monitoring Location RSW-001	E-10
Table E-5.	Receiving Water Monitoring Requirements – Monitoring Location RSW-002	E-10
Table E-6.	Receiving Water Monitoring Requirements – Monitoring Location RSW-003.....	E-11
Table E-7.	Monitoring Periods and Reporting Schedule.....	E-12

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

- A.** An effluent sampling station, Monitoring Location EFF-001, shall be established for the point of discharge, Discharge Point 001 (Latitude 34°12'46" North and Longitude 118°08'43" West), and shall be located where representative samples of that effluent can be obtained.
- B.** Effluent samples shall be taken downstream of any addition to treatment works and prior to entering the unnamed canyon, tributary to Arroyo Seco.
- C.** The Regional Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- D.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. sections 136.3, 136.4, and 136.5 (revised May 18, 2012); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.
- E.** Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Resources Control Board (State Water Board) Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- F.** For any analyses performed for which no procedure is specified in the United States Environment Protection Agency (USEPA) guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G.** Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP".
- H.** The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purposes of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:
 - 1. An actual numerical value for sample results greater than or equal to the ML, or
 - 2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML, or
 - 3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment H) are those published by the State Water Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, February 24, 2005.

- I. Water/wastewater samples must be analyzed using USEPA-approved "sufficiently sensitive" test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or required under 40 C.F.R. chapter I, subchapter N or O. As specified in 40 C.F.R. section 122.44(i)(1)(iv), a test method is defined as "sufficiently sensitive" where:
1. The method ML is at or below the level of the applicable water quality criterion or permit limitation for the measured pollutant or pollutant parameter; or
 2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter I, subchapter N or O for the measured pollutant or pollutant parameter.

Where no USEPA-approved method exists, the Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment H to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment H;
 2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in 40 C.F.R. part 136 (revised May 18, 2012);
 3. When the Discharger agrees to use an ML that is lower than that listed in Attachment H;
 4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment H, and proposes an appropriate ML for their matrix, or;
 5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- J. Water/wastewater samples must be analyzed within allowable holding time limits as specified in part 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- K. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

- L.** The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
- M.** The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. Unless otherwise specified in the analytical method, duplicate samples must be analyzed at a frequency of 5% (1 in 20 samples) with at least one if there are fewer than 20 samples in a batch. A batch is defined as a single analytical run encompassing no more than 24 hours from start to finish. A similar frequency shall be maintained for analyzing spiked samples.
- N.** When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.
- O.** For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.
- P.** In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
 - 1. Types of wastes and quantity of each type;
 - 2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
 - 3. Location of the final point(s) of disposal for each type of waste.If no wastes are transported off-site during the reporting period, a statement to that effect should be submitted.
- Q.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
- R.** Laboratories analyzing monitoring samples shall be certified by the Department of Public Health, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

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 E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	A sampling station shall be established after all treatment of filter backwash and filter-to-waste prior to mixing with any other waste stream, and prior to or at the point of discharge into the unnamed canyon tributary to Arroyo Seco.
001	INT-001	A sampling station shall be established for the settling basin discharge, prior to mixing with any other waste stream and prior to or at the point of discharge into the unnamed canyon tributary to the Arroyo Seco.
--	RSW-001	A sampling station shall be established upstream from the confluence of the discharge and the unnamed canyon tributary to the Arroyo Seco.
--	RSW-002	A sampling station shall be established within the unnamed canyon tributary to the Arroyo Seco, downstream of the confluence of Discharge Point 001 at the location of Alzada Road.
	RSW-003	Los Angeles River Wardlow station. The daily flow data at LADPW gage Station F319-R near Wardlow River Road is available after a set time by contacting the LADPW at (626) 458-5100. As an alternative, the Discharger may individually obtain real-time flow by appropriate measurements or estimates as approved by the Regional Water Board.

III. INFLUENT MONITORING REQUIREMENTS—NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001A

1. The Discharger shall monitor filter backwash and filter-to-waste at Monitoring Location EFF-001A as follows:

Table E-2. Effluent Monitoring at EFF-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gpd (gallons per day)	Measure	1/Discharge Event ¹	--
Conventional Pollutants				
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C) ²	mg/L	Grab	1/Discharge Event ³	4
<i>E. coli</i>	MPN/100 ml	Grab	1/Discharge Event ³	4
Oil and Grease ²	mg/L	Grab	1/Discharge Event ³	4
pH	s.u.	Grab	1/Discharge Event ³	4
Total Suspended Solids (TSS) ²	mg/L	Grab	1/Discharge Event ³	4
Non-Conventional Pollutants				
Chronic Toxicity ⁵	Pass or Fail, % Effect (TST)	Grab	1/Year ⁶	6
Aluminum, Total Recoverable	µg/L	Grab	1/Discharge Event ³	4
Ammonia Nitrogen, Total (as N) ²	mg/L	Grab	1/Discharge Event ³	4
Chloride ²	mg/L	Grab	1/Discharge Event ³	4
Chlorine, Total Residual ²	mg/L	Grab	1/Discharge Event ³	4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/Discharge Event ³	4
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Discharge Event ³	4
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event ³	4
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/Discharge Event ³	4
Nitrite plus Nitrate (as N)	mg/L	Grab	1/Discharge Event ³	4
Settleable solids	ml/L	Grab	1/Discharge Event ³	4
Sulfate	mg/L	Grab	1/Discharge Event ³	4
Sulfide, Total (as S)	mg/L	Grab	1/Discharge Event ³	4
Temperature	°F	Grab	1/Discharge Event ³	4
Total Dissolved Solids	mg/L	Grab	1/Discharge Event ³	4
Turbidity	NTU	Grab	1/Discharge Event ³	4
Priority Pollutants				
Cadmium, Total Recoverable ²	µg/L	Grab	1/Discharge Event ³	4
Copper, Total Recoverable ²	µg/L	Grab	1/Discharge Event ³	4
Lead, Total Recoverable ²	µg/L	Grab	1/Discharge Event ³	4
Zinc, Total Recoverable ²	µg/L	Grab	1/Discharge Event ³	4
Dichlorobromomethane ²	µg/L	Grab	1/Discharge Event ³	4
Other Priority Pollutants	µg/L	Grab	1/Year ⁶	4

- The total daily flow volume shall be recorded daily during each period of discharge. Periods of no flow shall also be reported.
- The mass emission (lbs/day) for the discharge shall be calculated and reported using the limitation concentration and the actual flow rate measured at the time of discharge, using the formula:

$$M = 8.34 \times C_e \times Q$$
where: M = mass discharge for a pollutant, lbs/day
C_e = Reported concentration for a pollutant
Q = actual discharge flow rate.
- If more than one discharge occurs within a month, only one sample event is required for that month.
- Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.
- The Permittee shall conduct whole effluent toxicity monitoring as outlined in section V. Please refer to section V.A.7 of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as "Pass" or "Fail". The maximum daily single result shall be reported as "Pass" or "Fail" and "% Effect". When there is a discharge more than one day in a calendar month period, up to three independent toxicity tests are required when one toxicity test results in "Fail".
- The Discharger shall conduct annual monitoring within the first seven days of discharge during a calendar year.
- Priority Pollutants as defined by the CTR defined in Finding II.I. of the Limitations and Discharge Requirements of this Order, and included as Attachment I.

B. Monitoring Location INT-001

- The Discharger shall monitor settling basin drainage at Monitoring Location INT-001 as follows:

Table E-3. Effluent Monitoring at INT-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow Volume	Gallons	Measure or estimate	1/Discharge Event ²	--
Conventional Pollutants				
<i>E. coli</i>	MPN/100 ml	Grab	1/Discharge Event ²	³
pH	s.u.	Grab	1/Discharge Event ²	³
TSS	mg/L	Grab	1/Discharge Event ²	³

1. The total daily flow volume shall be recorded daily during each period of discharge.
2. If more than one discharge event occurs within a year, only one sample event is required for that year.
3. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; for priority pollutants, the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Definition of Chronic Toxicity

Chronic toxicity measures an adverse effect (e.g., reduced growth, reproduction, and mortality) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Chronic toxicity test results shall be measured using the two concentration (i.e., discharge in-stream waste concentration and laboratory water control) Test of Significant Toxicity (TST) statistical approach and reported in units of Pass or Fail and % Effect.

B. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

The chronic toxicity IWC for this discharge is 100 percent effluent.

C. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test and Toxicity Identification Evaluation (TIE) studies. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

D. Chronic Freshwater Species and Test Method

If effluent samples are collected from outfalls discharging to receiving waters with salinity <1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples—at the in-stream waste concentration for the discharge—in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 C.F.R. section 136). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

1. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).
2. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01).

3. A static renewal toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

E. Species Sensitivity Screening

Species sensitivity screening shall be conducted monthly for a period of three months. Once each month, the Discharger shall collect a single effluent sample and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. The species that exhibits the highest "Percent (%) Effect" at the discharge IWC during species sensitivity screening shall be used for routine annual monitoring.

Rescreening is required every three years. The Discharger shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive, or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

F. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

1. The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The null hypothesis (H_0) for the TST statistical approach is: Mean discharge IWC response $\leq 0.75 \times$ Mean control response. A test result that rejects this null hypothesis is reported as "Pass". A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent (%) Effect" at the discharge IWC is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$.
2. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.
3. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

G. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare or update and submit a generic Initial Investigation TRE Work Plan within 90 days of the permit effective date, to be ready to respond to toxicity events. The Discharger shall review and update this work plan as necessary so it remains current and applicable to the discharge. At minimum, the work plan shall include:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

3. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

H. Toxicity Reduction Evaluation (TRE) Process

1. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using—according to the type of treatment facility—EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989). Within 30 days, the Discharger shall submit to the Regional Water Board Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:
 - a. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
 - b. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
 - c. A schedule for these actions, progress reports, and the final report.
2. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
4. The Discharger shall conduct routine effluent monitoring for the duration of the TRE process. Additional accelerated monitoring and TRE work plans are not required once a TRE is begun.
5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

I. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, including:

1. The toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent (%) Effect” at the chronic toxicity IWC for the discharge.

2. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
3. TRE/TIE results. The Regional Water Board Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses.
4. Statistical program (e.g., TST calculator, CETIS, etc.) output results for each toxicity test.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001

1. The Discharger shall monitor the unnamed tributary to the Arroyo Seco at RSW-001 as follows:

Table E-4. Receiving Water Monitoring Requirements – Monitoring Location RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	s.u.	Grab	1/Year ¹	²
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N) ²	mg/L	Grab	1/Year ¹	⁴
Hardness (as mg/L CaCO ₃)	mg/L	Grab	1/Year	²
E. coli	(MPN per 100 mL)	Grab	1/Year ¹	²
Priority Pollutants				
Priority Pollutants ³	µg/L	Grab	1/Year	²

¹ Receiving water pH, hardness, and temperature must be analyzed at the same time the effluent samples (Monitoring Location EFF-001) are collected for priority pollutant analysis.

² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136, for priority pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by method approved by the Regional Water Board or the State Water Board. If more than one analytical method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML.

³ Priority pollutants as defined by the CTR, included in Attachment I of this Order.

B. Monitoring Location RSW-002

1. The Discharger shall monitor the unnamed tributary to the Arroyo Seco at RSW-002 as follows:

Table E-5. Receiving Water Monitoring Requirements – Monitoring Location RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	1/Quarter ¹	²
Temperature	°F	Grab	1/Quarter ¹	²

¹ Receiving water pH and temperature must be collected at the same time as upstream ammonia sample.

² Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136, for priority

pollutants the methods must meet the lowest MLs specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by method approved by the Regional Water Board or the State Water Board. If more than one analytical method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML.

C. Monitoring Location RSW-003

1. The Discharger shall monitor the Los Angeles River at RSW-003 as follows:

Table E-6. Receiving Water Monitoring Requirements – Monitoring Location RSW-003

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	cfs	¹	1/Day ²

- ¹. The daily flow data at Wardlow will be available after a set time by contacting the LADPW. As an alternative, the Discharger may individually obtain real time flow by appropriate measurements or estimates as approved by the Regional Water Board.
- ². The Discharger shall report the daily mean discharge for each day there is a discharge.

IX. OTHER MONITORING REQUIREMENTS – NOT APPLICABLE

X. REPORTING REQUIREMENTS

D. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.
5. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.H.

E. Self-Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State of 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 SMRs as searchable PDF documents. SMR documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed in section XI.B.8.c of this MRP.

The CIWQS Website 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 X. The Discharger shall submit quarterly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. 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.

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

Table E-7. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Start Date	Monitoring Period	SMR Due Date
1/Discharge Event	On permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	May 1 August 1 November 1 February 1
1/Year	On permit effective date	January 1 through December 31	February 1 of the next year

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable RL and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. 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. 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 ($\pm$ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
 - 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. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Los Angeles Regional Water Board and State Water Board, 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 RL.
6. **Multiple Sample Data.** When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, 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:

- a. 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.
 - b. 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.
7. The Discharger shall submit SMRs 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 violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

F. Discharge Monitoring Reports (DMRs) – Not Applicable

G. Other Reports

1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:
 - a. Initial Investigation TRE workplan (Special Provision VI.C.2.a)
 - b. Report on Proposed Upstream Receiving Water Monitoring Station (Special Provision VI.C.2.b)
2. The Discharger shall report the results of any chronic toxicity testing or TRE/TIE activity as required in the MRP section V. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

ATTACHMENT F – FACT SHEET

CONTENTS

I.	Permit Information.....	F-3
II.	Facility Description	F-4
	A. Description of Wastewater and Biosolids Treatment and Controls	F-4
	B. Discharge Points and Receiving Waters	F-5
	C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data	F-5
	D. Compliance Summary.....	F-7
	E. Planned Changes	F-7
III.	Applicable Plans, Policies, and Regulations	F-7
	A. Legal Authorities	F-7
	B. California Environmental Quality Act (CEQA).....	F-7
	C. State and Federal Laws, Regulations, Policies, and Plans.....	F-7
	D. Impaired Water Bodies on CWA 303(d) List.....	F-9
	E. Other Plans, Policies and Regulations – Not Applicable	F-11
IV.	Rationale For Effluent Limitations and Discharge Specifications	F-11
	A. Discharge Prohibitions	F-12
	B. Technology-Based Effluent Limitations	F-12
	1. Scope and Authority	F-12
	2. Applicable Technology-Based Effluent Limitations.....	F-13
	C. Water Quality-Based Effluent Limitations (WQBELs)	F-13
	1. Scope and Authority	F-13
	2. Applicable Beneficial Uses and Water Quality Criteria and Objectives.....	F-13
	3. Determining the Need for WQBELs	F-14
	4. WQBEL Calculations	F-16
	5. WQBELs based on Basin Plan Objectives.....	F-20
	6. Whole Effluent Toxicity (WET)	F-21
	D. Final WQBELs	F-22
	E. Final Effluent Limitation Considerations	F-23
	1. Anti-Backsliding Requirements.....	F-24
	2. Antidegradation Policies	F-24
	3. Stringency of Requirements for Individual Pollutants	F-25
	4. Summary of Final Effluent Limitations.....	F-25
	F. Land Discharge Specifications – Not Applicable	F-27
	G. Recycling Specifications – Not Applicable.....	F-27
V.	Rationale for Receiving Water Limitations	F-27
	A. Surface Water	F-27
	B. Groundwater	F-27
VI.	Rationale for Provisions	F-27
	A. Standard Provisions.....	F-27
	B. Special Provisions.....	F-28
	1. Reopener Provisions	F-28
	2. Special Studies and Additional Monitoring Requirements	F-28
	3. Best Management Practices and Pollution Prevention.....	F-28
	4. Construction, Operation, and Maintenance Specifications	F-29
	5. Special Provisions for Municipal Facilities (POTW's Only)) – Not Applicable	F-29
	6. Other Special Provisions – Not Applicable.....	F-29
	7. Compliance Schedules – Not Applicable	F-29
VII.	Rationale for Monitoring and Reporting Requirements	F-29
	A. Influent Monitoring – Not Applicable.....	F-29

B.	Effluent Monitoring	F-29
C.	Whole Effluent Toxicity Testing Requirements	F-30
D.	Receiving Water Monitoring	F-30
	1. Surface Water	F-30
	2. Groundwater – Not Applicable	F-30
E.	Other Monitoring Requirements	F-30
VIII.	Public Participation.....	F-30
A.	Notification of Interested Parties	F-30
B.	Written Comments	F-30
C.	Reconsideration of Waste Discharge Requirements	F-31
D.	Information and Copying	F-31
E.	Register of Interested Persons.....	F-31
F.	Additional Information	F-31

TABLES

Table F-1.	Facility Information.....	F-3
Table F-2.	Historic Effluent Limitations and Monitoring Data.....	F-5
Table F-3.	Basin Plan Beneficial Uses	F-8
Table F-4.	Nitrogen and Related Compound WLAs	F-10
Table F-5.	Metals WLAs Assigned to Minor NPDES Permittees Discharging to the Arroyo Seco	F-11
Table F-6.	Applicable <i>E. coli</i> Bacteria Water Quality Objectives.....	F-11
Table F-7.	Applicable Water Quality Criteria	F-14
Table F-8.	Summary of Reasonable Potential Analysis.....	F-15
Table F-9.	Applicable Basin Plan Numeric Water Quality Objectives	F-20
Table F-10.	Summary of Water Quality-based Effluent Limitations	F-22
Table F-11.	Summary of Final Effluent Limitations-Discharger Point 001.....	F-25

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Regional Water Board (Regional Water Board) incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance 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. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B191300001
Discharger	Lincoln Avenue Water Company
Name of Facility	South Coulter Surface Water Treatment Plant
Facility Address	3939 Chaney Trail
	Altadena, CA 91001
	Los Angeles County
Facility Contact, Title and Phone	Robert Hayward, General Manager, (626) 798-9101
Authorized Person to Sign and Submit Reports	Robert Hayward, General Manager, (626) 798-9101
Mailing Address	564 W Harriet Street, Altadena, CA, 91001
Billing Address	SAME
Type of Facility	Privately-owned water treatment plant
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	Not applicable
Recycling Requirements	Not applicable
Facility Permitted Flow	18,500 gallons per day (gpd)
Facility Design Flow	Not applicable
Watershed	Los Angeles River
Receiving Water	Unnamed Tributary to the Arroyo Seco
Receiving Water Type	Inland Surface Water

- A. Lincoln Avenue Water Company (hereinafter Discharger) is the owner and operator of South Coulter Surface Water Treatment Plant (hereinafter Facility), a domestic drinking water treatment plant.

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. The Facility discharges wastewater to an unnamed perennial stream, a water of the United States, tributary to the Arroyo Seco within the Los Angeles River watershed. The Discharger was previously regulated by Order R4-2009-0103 and National Pollutant Discharge

Elimination System (NPDES) Permit No. CA0064068 adopted on October 1, 2009 and expired on September 10, 2014. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

- C. The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on April 4, 2014. Supplemental information was requested and received on June 4, 2015. The application was deemed complete on June 12, 2015.
- D. A site visit was conducted on October 15, 2014, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

II. FACILITY DESCRIPTION

The Discharger is the owner and operator of a domestic drinking water treatment plant located at 3939 Chaney Trail in Altadena, CA. The Facility is operated as a water treatment system for the community of West Altadena when surface water is available in Millard Canyon (also known as Millard Creek). The Discharger provides drinking water to a service population of over 16,000. Source water consists of surface water from Millard Canyon, groundwater wells within the Raymond Basin, treated surface water from Metropolitan Water District of Southern California, and emergency connections with Las Flores Water Company and the City of Pasadena. This Order covers only the backwash, filter-to-waste, and settling basin discharge from the South Coulter Surface Water Treatment Plant with source water from Millard Canyon. The Discharger maintains coverage under General Permit for *Discharges of Nonprocess Wastewater to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (CAG994003) for discharges from the groundwater source, treated at separate location (2700 Olive Avenue, Altadena, CA).

Source water is obtained from a diversion structure located in Millard Canyon. The pipeline from the diversion structure conveys water from Millard Canyon approximately 1.25 miles to the Facility for treatment and distribution.

A. Description of Wastewater and Biosolids Treatment and Controls

Surface water from the Millard Canyon diversion pipeline flows to a settling basin (referred to as a sandbox) located in the north section of the Facility site. The settling basin provides for removal of leaves, debris, and other solids. Once per year, the settling basin is drained for maintenance. The drainage is channeled into a pipe which drains onto a paved, on-site roadway and flows via gravity to Discharge Point 001.

From the settling basin, water flows to the North Coulter Reservoir which is a covered, 1,000,000-gallon concrete storage tank. From the North Coulter Reservoir, water flows via gravity approximately 450 feet south to the 2-stage garnet-filtration system. Prior to entering to the filtration treatment system, the water is pretreated with chlorine. Before it reaches each stage, a food-grade, cationic polymer is added to help coagulate suspended solids and improve filtration.

The filtration system consists of in-line, high-rate, dual-stage parallel pressure filter equipment that is capable of treating 700 gallons per minute (gpm). The first stage consists of seven garnet-filtration vessels and the second stage consists of five vessels. Once the water has passed through both filtration stages, chlorine is added for final disinfection. The treated water is directed to and stored in a second 1,000,000-gallon storage tank (South Coulter Reservoir), from which it flows, via gravity, to customers in Altadena.

The filters are periodically backwashed to flush out solids and contaminants trapped in the filters. Backwash pumps are located at the first and second stage. The capacity of the first stage pump is 300 gpm and the capacity of the second stage pump is 270 gpm. Prior to the backwash water being discharged it goes through a diffuser for de-chlorination. The Facility does not operate the backwash system during settling basin discharges.

In addition to backwash, the effluent includes filter-to-waste, which is the initial filtrate upon startup following backwash. This discarded product water potentially contains contaminants similar to those in the filter backwash (e.g., chlorine and chlorine byproducts, suspended solids). Backwash and filter-to-waste from each of the filtration units is conveyed through an underground pipe and is discharged to a steep hillside at Discharge Point 001.

B. Discharge Points and Receiving Waters

Up to 18,500 gallons per day (gpd) of treated water is intermittently discharged through Discharge Point 001 (Latitude 34°12'46" North and Longitude 118°08'43" West). From the hillside, the discharge flows to an unnamed perennial stream at a location near Alzada Street. The unnamed stream flows southwest towards the Arroyo Seco above the Hahamonga Spreading Grounds. The Arroyo Seco flows southward from the Spreading Grounds to Devils Gate Dam and then southward to the Los Angeles River. The unnamed perennial stream is tributary to the Arroyo Seco and both are waters of the United States in the Los Angeles River watershed.

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

Effluent limitations in the existing Order are more stringent than the requirements in the previous Order (Regional Water Board Order R4-2003-0120) to the Facility, mostly because implementation of the Nutrient TMDL and Metals TMDL for the Los Angeles River were started from the existing Order. Since a summary of the existing effluent requirements and the SMR data for the existing effluent requirements are not available, the effluent limitations required in the existing Order (effective since November 1, 2009) and the monitoring data collected in the previous permit cycle (January 2004 through September 2009) for discharges from Discharge Point 001 (Monitoring Location EFF-001) are compiled as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation		Monitoring Data
		Average Monthly	Maximum Daily	
Conventional Pollutants				
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	<5-1,000 ¹
	lbs/day	3.1	4.6	
Oil and Grease	mg/L	10	15	<2-6.0
	lbs/day	1.5	2.3	
pH	s.u.	6.5 - 8.5 ²		3.4-8.2
Total Suspended Solids (TSS)	mg/L	50	75	<1-15
	lbs/day	7.7	11.6	
Non-Conventional Pollutants				
Chloride	mg/L	--	15	1.1-52
	lbs/day	--	2.3	
Chlorine, Total Residual	mg/L	--	0.1	<0.1-0.1
	lbs/day	--	0.0153	
Acute Toxicity	% Survival	³	³	90-100

Parameter	Units	Effluent Limitation		Monitoring Data
		Average Monthly	Maximum Daily	
Ammonia Nitrogen, Total (as N)	mg/L	2.3	10.1	
	lbs/day	0.4	1.55	
Nitrate Nitrogen, Total (as N)	mg/L	--	8	
	lbs/day	--	1.2	
Nitrite Nitrogen, Total (as N)	mg/L	--	1	
	lbs/day	--	0.15	
Nitrite Plus Nitrate (as N)	mg/L	--	8	<0.4-0.94
	lbs/day	--	1.2	
Settleable Solids	mg/L	0.1	0.3	All<0.1
Sulfate	mg/L	--	40	14-30
	lbs/day	--	6.1	
Sulfide, Total (as S)	mg/L	--	1.0	All<0.1
Temperature	°F	--	86	46-65
Total Dissolved Solids (TDS)	mg/L	--	300	150-2,200
	lbs/day	--	46	
Turbidity	NTU	50	75	0.3-8.2
Priority Pollutants				
Cadmium, Total Recoverable	µg/L	2.6	5	
	lbs/day	0.0004	0.0008	
Copper, Total Recoverable, Wet Weather ⁴	µg/L	14	28 ⁵	All<50
	lbs/day	0.002	0.004 ⁵	
Copper, Total Recoverable, Dry Weather ⁷	µg/L	--	22 ⁶	
	lbs/day	--	0.0034 ⁶	
Lead, Total Recoverable	µg/L	5.6	11.3	<0.86-12
	lbs/day	0.00096	0.002	
Zinc, Total Recoverable	µg/L	93	186	7.8-51
	lbs/day	0.014	0.03	
Dichlorobromomethane	µg/L	0.56	1.12	
	lbs/day	0.000086	0.0002	<5-1.2

NR = Not Reported

1. Only one value was reported as detected (1,000 mg/L), sample collected on December 23, 2004.

2. Range of instantaneous values.

3. There shall be no acute toxicity in the discharge. The average survival in the undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90 percent, and no single test shall produce less than 70 percent survival.

4. The wet weather TMDL limits apply when the maximum daily flow at Reach 1 of the Los Angeles River at Willow Street gage station at Wardlow is equal to or greater than 500 cubic feet per second (approx. 320 million gallons per day)..

5. Based on sample dates that coincided with wet weather flows, greater than 500 cfs at the Wardlow station.

6. Based on sample dates that coincided with a dry weather flow, less than 500 cfs at the Wardlow station.

7. The dry weather TMDL limits apply when the maximum daily flow at Reach 1 of the Los Angeles River at Willow Street gage station at Wardlow is less than 500 cubic feet per second.

D. Compliance Summary

Due to lack of source water, the treatment system has remained offline since June 2009. Therefore, there were no discharges, effluent limit exceedances, or Order violations during the last Order term.

Monitoring data collected on December 23, 2004 representing the quality of effluent discharged indicated that the Discharger exceeded the maximum daily effluent limitation for BOD and TDS as shown in Table F-2. The Discharger indicated in the cover letter for the 4th Quarter 2004 monitoring report a dechlorination system had been added to the backwash effluent pipe to treat effluent prior to discharging it to the canyon. Further, the Discharger indicated the surface water treatment plant was offline from May 2004 through October 2004, due to the seasonal operation schedule. The Discharger identified in the 2004 Annual Comprehensive Site Evaluation that the type of dechlorination product used was the cause of the exceedances. Subsequently, the Discharger modified the dechlorination system to use a different form of dechlorination product and reconfigured the dechlorination system to allow for greater solution contact time to dechlorinate the backwash water prior to discharging it to the canyon.

E. Planned Changes

The Discharger does not anticipate any changes to the Facility during the term of this Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The Regional Water Board adopted a Water Quality Control Plan, *Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan.

The Basin Plan at Chapter 2, Inland Surface Waters (page 2-4) states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan does not specifically identify beneficial uses for the unnamed stream receiving the Facility's discharge, but does identify present and potential uses for the Arroyo Seco, to which the unnamed stream is tributary. These beneficial uses are listed in Table F-3. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

Thus, beneficial uses applicable to the unnamed tributary stream and the Arroyo Seco are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Unnamed tributary to Arroyo Seco (Reach 3, above Devil's Gate Dam)	Existing: Municipal and domestic supply (MUN); Industrial service supply (IND); industrial process supply (PROC); ground water recharge (GWR); water contact recreation (REC-1 ¹); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD), wildlife habitat (WILD), wetland habitat (WET).

¹. Access prohibited by Los Angeles County Department of Public Works in the concrete channelized areas.

2. **Title 22 of the California Code of Regulations.** The California Department of Public Health established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22, California Code of Regulations (Title 22). The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as the basis for effluent limitations in WDRs and NPDES permits to protect the groundwater recharge (GWR) beneficial use or the municipal and domestic supply (MUN) beneficial use. The Los Angeles River Reach 4 has a designated beneficial use of GWR. Surface water from the Arroyo Seco Reach 3 percolates into the Raymond Groundwater Basin. Since groundwater from this Basin may be used to provide drinking water to the community, the groundwater aquifers should be protected, therefore, Title 22-based MCLs were used as a basis for effluent limitations.
3. **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 federal water quality criteria for priority pollutants.
4. **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.
5. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.

6. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 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 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 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 provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.
7. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict 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.
8. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology based effluent limitations on point sources. For all 303(d) listed water bodies and pollutants, the Regional Water Board plans to develop and adopt total maximum daily loads (TMDLs) that will specify wasteload allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA approved the State's 2010 303(d) list of impaired water bodies on November 12, 2010. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2010 303(d) list and have been scheduled for TMDL development.

The Facility discharges to an unnamed tributary to Arroyo Seco, a tributary to Los Angeles River. Based on the 2010 303(d) list, Arroyo Seco is impaired for coliform bacteria and trash, and Los Angeles River is impaired for ammonia, coliform bacteria, copper, lead, nutrients (algae), oil, and trash. The TMDLs adopted for the Los Angeles River watershed and applicable to tributaries to Arroyo Seco are described below.

1. **Los Angeles River Trash TMDL.** The Los Angeles River Trash TMDL assigns WLAs to the Los Angeles County Municipal Separate Storm Sewer System (MS4) permittees, Caltrans storm water permittee, and Phase II storm water permittees. The Facility is not subject to the Los Angeles River Trash TMDL.
2. **TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River.** The Regional Water Board first amended the Basin Plan to incorporate the TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River (referred to hereinafter as the "Nutrient TMDL") on July 10, 2003, in Resolution R03-009. The State Water Board subsequently approved the TMDL in Resolution R03-0074 on November 19, 2003. The Office of Administrative Law (OAL) approved it on

February 27, 2004. The TMDL became effective on March 18, 2004, with USEPA's approval. The Nutrient TMDL has been since amended twice, first on November 19, 2003, by Resolution No. R03-016, and second on December 6, 2012, by Resolution No. R12-010. The second revision was approved by the State Water Board on June 4, 2013, by the Office of Administrative Law on June 9, 2014, and by USEPA on August 7, 2014. The TMDL established WLAs for ammonia, nitrate-nitrogen, and nitrite nitrogen, and associated implementation measures. WLAs were assigned to the major point sources (i.e., the three major water reclamation plants (WRPs) that discharge directly to the Los Angeles River) and to minor point sources. The TMDL defines minor point sources as facilities enrolled under NPDES permits or Waste Discharge Requirements (WDRs), industrial and construction storm water discharges, and MS4 discharges. The Facility meets the definition of a minor point source as defined in this TMDL. As such, WLAs applicable to the Facility are as follows:

Table F-4. Nitrogen and Related Compound WLAs

Parameter	One-Hour Average (mg/L)	Thirty-Day Average (mg/L)	Other Requirements
Ammonia Nitrogen, Total (as NH ₃ -N)	10.1	2.4	The highest four-day average within a 30-day period shall not exceed 2.5 times the 30-day average.
Nitrate Nitrogen, Total (as N)	--	8.0	--
Nitrite Nitrogen, Total (as N)	--	1.0	--
Nitrite plus Nitrate Nitrogen (as N)	-	8.0	--
All of the above	--	--	Effluent concentrations shall not exceed levels that can be reliably maintained by the facility's applicable treatment technologies existing at the time of the permit issuance, re-issuance or modification.

This Order includes effluent limitations calculated from the WLAs as described in section IV.C.4 of the Fact Sheet. The ammonia effluent limitations were calculated according to implementation procedures in the Basin Plan (pages 314 -321 and using multipliers provided in Tables 3-6 and 3-7 of the Basin Plan).

3. **Los Angeles River and Tributaries Metals TMDL.** Resolution R05-006, an amendment to the Basin Plan incorporating a Metals TMDL for the Los Angeles River and Tributaries was effective on January 11, 2006. On September 6, 2007, the Regional Water Board re-adopted the Los Angeles River Metals TMDL by Resolution R07-014, in compliance with a writ of mandate issued by the Los Angeles County Superior Court in the matter of Cities of Bellflower et al. v. State Water Resources Control Board et al. (Los Angeles Superior Court No. BS101732) EPA approved it on October 29, 2008, which is the effective date of the TMDL. On May 6, 2010, the Regional Water Board adopted revisions to the Metals TMDL by Resolution R10-003. The revised TMDL was approved by the State Water Board on April 19, 2011; by OAL on July 28, 2011, and became effective upon USEPA's approval on November 3, 2011. The amendment adjusts the numeric targets for Reaches 1 through 4 of the Los Angeles River and the Burbank Western Channel and corresponding WLAs for the major WRPs based on a Water Effects Ratio (WER) study completed in 2008. The TMDL revision only adjusted WLAs for the Tillman WRP, the Glendale WRP and the Burbank WRP. The revised TMDL does not change the WLAs assigned to the minor dischargers that apply to the South Coulter Surface Water Treatment Plant.

The TMDL assigns WLAs for dry-weather and wet-weather conditions, based on the flow in the river. Dry weather WLAs apply when the maximum daily flow in the Los Angeles River is less than 500 cfs. Wet-weather WLAs apply when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs. The WLAs that apply to the Facility are summarized in the Table below.

Table F-5. Metals WLAs Assigned to Minor NPDES Permittees Discharging to the Arroyo Seco

Parameter	Weather/Flow Conditions	WLA ($\mu\text{g/L}$ Total Recoverable Metals)
Cadmium, Total Recoverable	Wet Weather ²	WER ¹ x 3.1
Copper, Total Recoverable	Dry Weather ³	WER ¹ x 22
	Wet Weather ²	WER ¹ x 17
Lead, Total Recoverable	Dry Weather ³	WER ¹ x 11
	Wet Weather ²	WER ¹ x 62
Zinc, Total Recoverable	Wet Weather ²	WER ¹ x 159

1. WERs have a default value of 1.0 for purposes of this permit.
2. The wet weather TMDL limits apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is equal to or greater than 500 cubic feet per second (approx. 320 MGD).
3. The dry weather TMDL limits apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is less than 500 cubic feet per second (approx. 320 MGD).

4. **Los Angeles River Watershed Bacteria TMDL.** The Regional Water Board adopted the Los Angeles River Watershed Bacteria TMDL (referred to hereinafter as the "Bacteria TMDL"), by Resolution R10-007. The TMDL was approved by the State Water Board on November 1, 2011, by OAL on March 21, 2012, and became effective on March 23, 2012, when it was approved by USEPA. The TMDL assigns wet-weather and dry-weather WLAs. The definition of dry and wet weather, as used in this TMDL, differ from the criteria employed in the Los Angeles River Metals TMDL. In the Bacteria TMDL, "wet weather" is defined as "any day in which 0.1 inch or more of rain occurs and the three days following the rain event."

Individual NPDES permittees are assigned a WLA of zero (0) days of allowable exceedances of the single sample target, and no exceedance of the geometric mean target during dry and wet weather. Compliance with the WLA of zero days of allowable exceedances can be demonstrated by achieving compliance with an effluent limitation based on the water quality objectives for *E. coli* indicator bacteria. The applicable water quality objectives are listed in Table 3 below.

Table F-6. Applicable *E. coli*/Bacteria Water Quality Objectives

Sample Type	Objective
Geometric Mean	<i>E. coli</i> density shall not exceed 126/100 ml.
Single Sample	<i>E. coli</i> density shall not exceed 235/100 ml.

E. Other Plans, Policies and Regulations – Not Applicable

IV. 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 in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 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 list of pollutants of concern was developed based on constituents commonly found in water treatment plant backwash, constituents for which the receiving water is listed as impaired, and other constituents identified as pollutants of concern in the development of Order R4-2009-0103. The EPA *Drinking Water Treatment Plant Residuals Management Technical Report* (December 2011, EPA 820-R-11-003) identifies, among other constituents, pH, temperature, TSS, settleable solids, turbidity, BOD, and oil and grease, as pollutants commonly regulated in backwash operations. These constituents are therefore pollutants of concern. The Facility uses a polymer containing aluminum in the treatment process. In addition water is chlorinated prior to filtration. As a result, there is potential for aluminum, chlorine, and chlorine byproducts, such as dichlorobromomethane, to be present in the backwash. The downstream receiving waters-Arroyo Seco and Los Angeles River Reach 2 are impaired for nitrogen compounds, metals, and bacteria, thus these constituents are pollutants of concern. Order R4-2009-0103 contained effluent limitations for sulfides and total dissolved solids and these constituents remain pollutants of concern.

A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, the Water Code, and previous permit provisions, and are consistent with the requirements set for other discharges to Arroyo Seco that are regulated by an NPDES permit.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point-source discharges. Section 301(b) of the CWA and USEPA permit regulations at 40 C.F.R. section 122.44 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 40 C.F.R. section 122.23 (NPDES Permit Regulations) and 40 C.F.R. section 125.3 (Best Professional Judgment (BPJ)).

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting

benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

As the discharge from this Facility is limited to filter backwash, filter-to-waste, and settling basin drainage, there are no applicable ELGs.

This Order includes technology-based effluent limitations based on BPJ in accordance with 40 C.F.R. section 125.3. Technology-based effluent limitations for BOD, oil and grease, settleable solids, sulfides, and turbidity were included in the prior permit (Order No. R4-2009-0103). Pursuant to state and federal anti-backsliding regulations, this Order retains effluent limitations for these pollutants as technology-based effluent limitations. The limitations for these pollutants are consistent with technology-based limitations included in other Orders within the State for similar types of discharges.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. 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) of 40 C.F.R. requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, 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, 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 Objectives

As noted in section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those

objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the receiving water are summarized in section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to the Arroyo Seco, to which the unnamed tributary receiving water is tributary. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, and in accordance with section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The Regional Water Board has determined that freshwater conditions exist in the Arroyo Seco and as such, freshwater criteria apply. The CTR criteria for freshwater or human health for consumption of water and organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Arroyo Seco, a water of the United States.

The Arroyo Seco has a beneficial use of MUN. The Basin Plan Chapter 3 water quality objectives for chemical constituents incorporates, by reference, drinking water primary MCLs as numeric objectives protective of the MUN beneficial use. As such, the drinking water MCLs from Title 22 are included in the RPA.

Some water quality criteria are hardness dependent. For development of Order R4-2009-0103 a median upstream receiving water hardness value of 183 mg/L (as CaCO₃) was used for calculation of metals criteria. Current upstream receiving water hardness data were not available during the current permit term; therefore, the hardness value of 183 mg/L (as CaCO₃) from Order R4-2009-0103 was used to calculate metals criteria for the RPA for this Order.

Table F-7 summarizes the applicable water quality criteria/objective for priority pollutants either limited in the existing permit or reported in detectable concentrations in the effluent or receiving water based on data submitted to the Regional Water Board. These criteria were used in conducting the RPA for this Order.

Table F-7. Applicable Water Quality Criteria

CTR No.	Constituent	Selected Criteria	CTR/NTR Water Quality Criteria			California Primary MCLs
			Freshwater		Human Health for Consumption of:	
			Acute	Chronic	Water & Organisms	
		µg/L	µg/L	µg/L	µg/L	µg/L
4	Cadmium (during dry weather)	4.0	8.9	4.0	--	5.0
10	Selenium	5	20	5	--	50
13	Zinc (during dry weather)	200	200	200	--	--
14	Cyanide	5.2	22	5.2	700	150
26	Chloroform	--	--	--	--	80 ¹
27	Dichlorobromomethane	0.56	--	--	0.56	80 ¹
81	Di-n-Butyl Phthalate	2700	--	--	2700	--

¹. For total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform and dibromochloromethane).

3. Determining the Need for WQBELs

In accordance with section 1.3 of the SIP, the Regional Water Board conducts an RPA for each priority pollutant with an applicable criterion or objective to determine if a

WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

- 1) Trigger 1 - If the $MEC \geq C$, a limit is needed.
- 2) Trigger 2 - If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.
- 3) Trigger 3 - If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water 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 using data collected by the Discharger at Monitoring Location EFF-001 from April 2008 through June 2009, after which time the Facility went off-line due to a lack of source water. Based on the RPA, no pollutants demonstrate reasonable potential as shown in the Table below.

Table F-8. Summary of Reasonable Potential Analysis

CTR No.	Parameter	Applicable WQC (µg/L)	Maximum Effluent Concentration (µg/L)	Maximum Detected Receiving Water Conc. (µg/L)	RPA Result – Need Limitation?	Reason
4	Cadmium (during dry weather)	4.0	< 0.1	NA ¹	No	MEC<C
10	Selenium	5	1.0 ²	NA ¹	No	MEC<C
13	Zinc (during dry weather)	200	< 10	NA ¹	No	MEC<C
14	Cyanide	5.2	5	NA ¹	No	MEC<C
26	Chloroform	--	0.46 ²	NA ¹	No	MEC<C
27	Dichlorobromo-methane	0.56	< 0.32	NA ¹	No	MEC<C
81	Di-n-Butyl Phthalate	2700	0.55 ²	NA ¹	No	MEC<C

1. NA=Receiving Water data not available for the RPA

2. The result is an estimated concentration that was detected above the MDL but below the ML

Existing Order No. R4-2009-0103 included effluent limitations for zinc and dichlorobromomethane. Although monitoring data does not trigger reasonable potential for these constituents, the existing limitations are implemented in the current Order to adhere to anti-backsliding requirements.

The Regional Water Board developed WQBELs for ammonia, nitrate nitrogen, nitrite nitrogen, nitrite plus nitrate nitrogen, cadmium (wet weather), copper (wet and dry weather), lead (wet and dry weather), and zinc (wet weather) that have available WLAs under Total Maximum Daily Load (TMDL) as described in section III.D of this Fact Sheet. The effluent limitations for these pollutants were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The Regional Water Board developed water quality-based effluent limitations for these pollutants pursuant to 40 C.F.R. section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Similarly, the SIP section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed.

This Order contains WQBELs for ammonia, nitrate nitrogen, nitrite nitrogen, and nitrite plus nitrate nitrogen. The effluent limitations for these parameters were established based on the available WLAs for the facility contained in the *TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River* (see Table F-4 of this Fact Sheet). As required by 40 C.F.R. section 122.44(d)(1)(vii), the Regional Water Board shall ensure there are WQBELs for ammonia, nitrate nitrogen, nitrite nitrogen, and nitrite plus nitrate nitrogen in the WDRs that are consistent with the assumptions and requirements of the available WLAs.

This Order also contains WQBELs for cadmium and zinc during wet weather and copper and lead during dry weather and wet weather. The limitations for these parameters were established based on the available WLAs for the facility contained in the *Los Angeles River and Tributaries Metals TMDL* (see Table F-5). As required by 40 C.F.R. section 122.44(d)(1)(vii), the Regional Water Board shall ensure there are WQBELs for cadmium and zinc, during wet weather; and copper and lead, during dry weather and wet weather, in the WDRs that are consistent with the assumptions and requirements of the available WLA. Based on the water quality monitoring done at the time of the TMDL adoption, which set the WLAs at the levels necessary to attain water quality standards, the Regional Water Board has determined that the WQBELs are consistent with the assumptions of the TMDL. Similarly, compliance with the effluent limitation will satisfy the requirements of the TMDL.

4. WQBEL Calculations

- a. If reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in section 1.4 of the SIP. These procedures include:
 - i. If applicable and available, use the WLA established as part of a TMDL.
 - ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
 - iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Water Board.
- b. Based on the RPA, none of the parameters demonstrated reasonable potential to cause or contribute to an exceedance of water quality objectives; therefore, no new limitations are calculated.

- c. The *TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River* includes WLAs for ammonia, nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite nitrogen as listed in Table F-4. As provided in Table F-5, the *Los Angeles River and Tributaries Metals TMDL* establishes dry weather WLAs for copper and lead; and wet weather WLAs for cadmium, copper, lead, and zinc. WQBELs for these constituents are calculated following the procedures in section 1.4 of the SIP.

d. WQBELs Calculation Example

Using dry and wet weather copper as examples, the following demonstrates how WQBELs were established for this Order. The table in Attachment J summarizes the development and calculation of all WQBELs for this Order using the process described below.

The process for developing these limits is in accordance with the corresponding section of the TMDLs and section 1.4 of the SIP.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state equation:

$$ECA = C + D(C-B) \text{ when } C > B, \text{ and}$$

$$ECA = C \quad \text{when } C \leq B,$$

Where $C =$ The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. The hardness used for this RPA was 183 mg/L as CaCO_3 .

$D =$ The dilution credit, and

$B =$ The ambient background concentration

As discussed above, this Order does not allow dilution; therefore:

$$ECA = C$$

When a WLA has been established through a TMDL for a parameter, the applicable WLA is set equal to the ECA. Since there are dry weather and wet-weather WLAs in the TMDL, two sets of limitations will be calculated

For dry-weather total recoverable copper, the ECA is equal to the concentration-based wet-weather WLA:

$$ECA_{\text{wet weather}} = WLA_{\text{wet weather}} = 17 \mu\text{g/L}$$

For wet-weather total recoverable copper, the ECA is equal to the concentration-based dry-weather WLA:

$$ECA_{\text{dry weather}} = WLA_{\text{dry weather}} = 22 \mu\text{g/L}$$

Step 2: For each ECA based on aquatic life criterion/objective, determine the long term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the

coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. For calculations based on wet weather WLAs, the acute multiplier is used. For calculations based on dry weather WLAs, the chronic multiplier is used. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{\text{wet weather}} = ECA_{\text{wet weather}} \times \text{Multiplier}_{\text{acute}}$$

$$LTA_{\text{dry weather}} = ECA_{\text{dry weather}} \times \text{Multiplier}_{\text{chronic}}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For both dry-weather and wet-weather total recoverable copper, the following data were used to develop the acute and chronic LTAs using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier _{acute}	ECA Multiplier _{chronic}
8	0.6	0.321	0.527

Wet-weather total recoverable copper:

$$LTA_{\text{wet weather}} = 17 \mu\text{g/L} \times 0.321 = 5.46 \mu\text{g/L}$$

Dry-weather total recoverable copper:

$$LTA_{\text{dry weather}} = 22 \mu\text{g/L} \times 0.527 = 11.6 \mu\text{g/L}$$

Note that for wet-weather total recoverable copper, the TMDL WLA is based on acute criterion, and therefore only acute multipliers will be used to develop the wet weather effluent limitations.

Step 3: Select the most limiting (lowest) of the LTA:

Since the LTAs were developed based on WLAs for dry and wet weather conditions, no comparison is made. Both LTAs are selected to calculate two sets of effluent limitations

$$LTA_{\text{wet weather}} = 5.46 \mu\text{g/L}$$

$$LTA_{\text{dry weather}} = 11.6 \mu\text{g/L}$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as AMEL and MDEL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of

samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{\text{aquatic life}} = LTA \times AMEL_{\text{multiplier95}}$$

$$MDEL_{\text{aquatic life}} = LTA \times MDEL_{\text{multiplier99}}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on a 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For both dry-weather and wet-weather total recoverable copper, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in section 1.4, Step 5 of the SIP:

No. of Samples Per Month	CV	Multiplier _{MDEL99}	Multiplier _{AMEL95}
4	0.6	3.11	1.55

Dry-weather total recoverable copper:

$$AMEL = 5.46 \mu\text{g/L} \times 1.55 = 8.5 \mu\text{g/L}$$

$$MDEL = 5.46 \mu\text{g/L} \times 3.11 = 17 \mu\text{g/L}$$

Wet-weather total recoverable copper:

$$AMEL = 11.6 \mu\text{g/L} \times 1.55 = 18 \mu\text{g/L}$$

$$MDEL = 11.6 \mu\text{g/L} \times 3.11 = 36 \mu\text{g/L}$$

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{\text{human health}}$:

$$AMEL_{\text{human health}} = ECA_{\text{human health}}$$

In the case of total recoverable copper, there are no human health criteria. Therefore there will be no ECA calculated for human health criteria.

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of Multiplier_{MDEL} to the Multiplier_{AMEL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDEL_{\text{human health}} = AMEL_{\text{human health}} \times (\text{Multiplier}_{\text{MDEL}} / \text{Multiplier}_{\text{AMEL}})$$

In the case of total recoverable copper, there are no human health criteria. Therefore there will be no AMEL or MDEL calculated for human health criteria.

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the WQBEL for the Order.

Calculations for wet weather effluent limitations are based on the wet-weather WLAs for total recoverable cadmium, total recoverable copper, total recoverable lead, and total recoverable zinc. Calculations for dry weather effluent limitations are based on the dry-weather WLAs for total recoverable copper and total recoverable lead. Calculations for

all conditions are based on the WLAs for ammonia, nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite nitrogen. These limitations are expected to be protective of beneficial uses. Final WQBELs for each are summarized in Table F-9 of the Fact Sheet.

5. WQBELs based on Basin Plan Objectives

Table F-9. Applicable Basin Plan Numeric Water Quality Objectives

Parameter	Units	Water Quality Objectives
pH	standard units	The pH of inland surface waters must be between 6.5 and 8.5 at all times and ambient pH shall not be changed more than 0.5 units from natural conditions.
Ammonia ¹	mg/L	<u>Cold</u> $1 - \text{hour avg.} = \frac{0.275}{(1 + 10^{7.204 - \text{pH}})} + \frac{39}{(1 + 10^{\text{pH} - 7.204})}$ <u>Early Life Stages (ELS) Absent</u> $30 - \text{day avg.} = \left(\frac{0.0577}{(1 + 10^{7.688 - \text{pH}})} + \frac{2.487}{(1 + 10^{\text{pH} - 7.688})} \right) \times 1.45 \times 10^{0.028 \times (25 - \text{Max}(T, 7))}$ Where T = temperature expressed in °C For freshwater, the highest 4-day average within the 30-day period shall not exceed 2.5 times the 30-day average objective.
Bacteria	MPN/100 ml	<u>Geometric Mean</u> <i>E. coli</i> density shall not exceed 126/100 ml <u>Single Sample Limits</u> <i>E. coli</i> density shall not exceed 576/100 ml.
Chloride	mg/L	15 ²
Chlorine, Total Residual	mg/L	Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.
Dissolved Oxygen	mg/L	The mean annual dissolved oxygen concentration of all waters shall be greater than 7.0 mg/L, and no single determination shall be less than 5.0 mg/L, except when natural conditions cause lesser concentrations. The dissolved oxygen content of all surface waters designated as COLD shall not be depressed below 6 mg/L as a result of waste discharges.
Sulfate	mg/L	40 ²
TDS	mg/L	300 ²
Temperature	°F	For waters designated COLD, water temperature shall not be altered by more than 5°F above the natural temperature.
Turbidity	NTU	Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU increases shall not exceed 10%.

1. Applicable to the Arroyo Seco above the spreading grounds.

2. Table 3-5 of the Basin Plan includes Arroyo Seco as a water body subject to ELS Absent

- a. **pH.** This Order includes effluent and receiving water limitations for pH to ensure compliance with Basin Plan Objectives for pH.
- b. **Ammonia.** Effluent limitations for ammonia are established in this Order based on the *TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River*. The resulting limitations are protective of the Basin Plan objective for ammonia.
- c. **Bacteria.** The Order includes a new bacteria limitation equal to the Basin Plan Objectives to implement requirements of the *Los Angeles River Watershed Bacteria TMDL*.

- d. **Chloride.** Order No. R4-2009-0103 contained an MDEL for chloride equal to 15 mg/L. This limitation is retained in this Order.
- e. **Chlorine, Total Residual.** Order No. R4-2009-0103 contained an MDEL for total residual chlorine equal to 0.1 mg/L. This limitation is retained in this Order.
- f. **Dissolved Oxygen.** This Order addresses dissolved oxygen through receiving water limitations.
- g. **Sulfate.** Order No. R4-2009-0103 contained an MDEL for sulfate equal to 40 mg/L. This limitation is retained in this Order.
- h. **TDS.** Order No. R4-2009-0103 contained an MDEL for TDS equal to 300 mg/L. This limitation is retained in this Order.
- i. **Temperature.** Information on background temperature was not available for evaluation; however the treatment system and backwash system are not expected to increase the temperature of the receiving stream. The existing Order includes an instantaneous effluent temperature limitation of 86°F based on a white paper titled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*. Information. This effluent limitation is retained to prevent backsliding.
- j. **Total Suspended Solids.** The Basin Plan requires that, “Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses.” This narrative objective has been translated into a numeric effluent limit, based on USEPA’s *Quality Criteria for Water* (commonly known as the “Gold Book”). In the Gold Book, USEPA notes that “[i]n a study downstream from a discharge where inert suspended solids were increased to 80 mg/L, the density of macroinvertebrates decreased by 60 percent...”. This indicates that suspended solids concentrations of 80 mg/L in the receiving water resulted in adverse effects to aquatic life. As such, the Regional Water Board has implemented an effluent limitation of 75 mg/L for the implementation of the narrative water quality objective for solids. This limitation is consistent with the limitation in Order No. R4-2009-0103.

6. Whole Effluent Toxicity (WET)

Whole Effluent Toxicity (WET) refers to the aggregate toxic effect of all pollutants in a facility’s wastewater effluent to aquatic organisms. Section 3 of the Basin Plan provides a narrative water quality objective for the aggregate toxicity. It specifies that there shall be no acute toxicity in ambient waters including mixing zones and there shall be no chronic toxicity in ambient waters outside mixing zones. Since the mixing zone condition is not available to the discharge under the permit, the water quality objective is applied to the end of the discharge point. The Basin Plan’s narrative toxicity water quality objective is in accordance with a national policy included in the federal Clean Water Act Section 101.(a)(3) that prohibits the discharge of toxic pollutants in toxic amounts.

The Basin Plan toxicity water quality objective further specifies that the objective’s compliance is determined by “using an established USEPA, State Board, or other protocol authorized by the Regional Board.” WET tests are the protocol established by USEPA first in its Technical Support Document for Water Quality-based Toxics Control (TSD) (USEPA 1991) and subsequently in the later guidance documents, including the most recent Test of Significant Toxicity Implementation Document (TST Guidance) (EPA 833-R-10-003, June 2010) and EPA Regions 8, 9, and 10 Toxicity Training Tool (Toxicity Training Tool) (January 2010).

WET tests, including acute toxicity test and chronic toxicity test, measure the degree of response of exposed aquatic test organisms to an effluent. An acute toxicity test is conducted to measures adverse effects usually mortality. A chronic toxicity test is

conducted to measure sublethal effects (e.g. reduced growth or reproduction) in addition to mortality. The WET test methods are specified by the USEPA in 40 CFR 136.3.

Both acute and chronic toxicity in the discharge are evaluated for this permit, using a monthly median effluent limitation and a maximum daily effluent limitation that utilizes USEPA's 2010 TST statistical approach. No WET monitoring results were available since April of 2008 from the facility. The existing Order R4-2009-0103 includes a limitation for acute toxicity to the effluent as follows:

- a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- b. No single test shall produce less than 70% survival.

The existing Order did not set a limitation for chronic toxicity in the effluent because the discharge from Discharge Point 001 were intermittent and thus was considered to "have little potential to contribute to long-term toxic effects within the receiving water." However, a USEPA study on toxicity effects of pollutants in water indicates that pollutants in intermittent discharges could potentially cause both acute or chronic toxic impacts for aquatic life. Thus, it is necessary in this permit to implement the SIP chronic toxicity requirements, which in Section 4 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. Since a chronic WET test is 1) capable of measuring both sublethal and lethal effects and it is 2) more stringent than the acute WET test, a chronic toxicity effluent limitation is imposed in this permit to replace the acute toxicity effluent limitation.

The final effluent limitations for chronic toxicity at Discharge Points 001 will be implemented using current USEPA guidance in its 2010 TST Guidance and Toxicity Training Tool. The chronic toxicity effluent limitation is expressed as "Pass" or "Fail" for the median monthly summary results and "Pass" or "Fail" and "Percent Effect" for each individual chronic toxicity result.

D. Final WQBELs

Final WQBELs applicable to the Facility are summarized in Table F-10.

Table F-10. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>E. coli</i>	MPN/100 ml	¹	--	--	²
pH	standard units	--	--	6.5	8.5
TSS	mg/L	50	75	--	--
	lbs/day	7.7	12	--	--
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass ³	Pass or %Effect<50 ³	--	--
Ammonia Nitrogen, Total (as N) ⁴	mg/L	2.0	3.9	--	--
	lbs/day	0.31	0.6	--	--
Chloride	mg/L	--	15	--	--
	lbs/day	--	2.3	--	--
Chlorine, Total Residual	mg/L	--	0.1	--	--
	lbs/day	--	0.015	--	--

Nitrate Nitrogen, Total (as N) ⁴	mg/L	8.0	16	--	--
	lbs/day	1.2	2.5	--	--
Nitrite Nitrogen, Total (as N) ⁴	mg/L	1.0	2.0	--	--
	lbs/day	0.15	0.31	--	--
Nitrite Plus Nitrate (as N) ⁴	mg/L	8.0	16	--	--
	lbs/day	1.2	2.5	--	--
Sulfate	mg/L	--	40	--	--
	lbs/day	--	6.2	--	--
Temperature	Deg. F	--	--	--	86
Total Dissolved Solids	mg/L	--	300	--	--
	lbs/day	--	46	--	--
Cadmium, Total Recoverable, Wet Weather ⁵	µg/L	1.5	3.1	--	--
	lbs/day	0.00023	0.00048	--	--
Copper, Total Recoverable, Wet Weather ⁵	µg/L	8.5	17	--	--
	lbs/day	0.0013	0.0026	--	--
Copper, Total Recoverable, Dry Weather ⁶	µg/L	18	36	--	--
	lbs/day	0.0028	0.0056	--	--
Lead, Total Recoverable, Wet Weather ⁵	µg/L	31	62	--	--
	lbs/day	0.0048	0.0096	--	--
Lead, Total Recoverable, Dry Weather ⁶	µg/L	9.0	18	--	--
	lbs/day	0.0014	0.0028	--	--
Zinc, Total Recoverable, Wet Weather ⁵	µg/L	79	159	--	--
	lbs/day	0.012	0.025	--	--
Zinc, Total Recoverable Dry Weather ⁶	µg/L	93	186	--	--
	lbs/day	0.014	0.03	--	--
Dichlorobromomethane	µg/L	0.56	1.12	--	--
	lbs/day	0.000086	0.00017	--	--

1. Geometric mean
2. Single sample maximum
3. The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail". The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail".
4. Effluent concentrations shall not exceed levels that can be reliably maintained by the facility's applicable treatment technologies existing at the time of the permit issuance.
5. The wet weather TMDL limits apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is equal to or greater than 500 cubic feet per second (approx. 320 MGD). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).
6. Limitations apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is less than 500 cubic feet per second (approx. 320 MGD). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).

E. Final Effluent Limitation Considerations

This Order includes new effluent limitations for cadmium (wet weather), copper, (wet and dry weather), lead (wet and dry weather), and zinc (wet weather) based on the *Metals TMDL for the Los Angeles River and Tributaries*. The limitations for cadmium (wet weather) and zinc (wet weather) are more stringent than the limitations in Order R4-2009-0103; however, they

only apply during wet weather conditions in the Los Angeles River. The new wet weather limitations for copper are more stringent than the limitations in Order R4-2009-0103. This Order includes a new mass-based limit for sulfides calculated from the concentration based TBEL retained from the previous Order.

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 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, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order. This Order retains effluent limitations from Order No. R4-2009-0103 for zinc, dichlorobromomethane, chloride, total residual chlorine, settleable solids, sulfate, sulfides, temperature, TDS, and turbidity to comply with anti-backsliding provisions.

This Order contains new limitations for ammonia that are less stringent than that in Order R4-2009-0103. The new limitations were developed to be consistent with the revised water quality objective provided in the Regional Water Board Resolution R12-010, adopted on December 6, 2012 and approved by USEPA on August 7, 2014, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Amend the TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River by Incorporating Site-specific Ammonia Objectives*.

This Order also contains new limitations for copper (dry weather) and lead (dry and wet weather) that are less stringent than in Order R4-2009-0103. The new limitations were developed to be consistent with the WLAs provided in the *Metals TMDL for the Los Angeles River and Tributaries*. As such, the relaxation is consistent with CWA section 303(d)(4)(A) which allows for the establishment of a less stringent effluent limitation based on a TMDL WLA when the receiving water has been identified as not meeting applicable water quality standards (i.e., a *nonattainment water*) and the TMDL WLA is part of an overall strategy for achieving attainment.

2. Antidegradation Policies

Section 131.12, 40 C.F.R., requires that the state water quality standards include an anti-degradation 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 is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

As discussed in section IV.D.1 of this Fact Sheet, this Order contains effluent limitations for copper (dry weather) and lead (dry and wet weather) that are less stringent than in the prior permit. These limitations are based on TMDL WLAs that were adopted into the Basin Plan as a means to achieve water quality objectives within the receiving water. The new effluent limitations and performance goals are consistent with the TMDL and the cumulative effect of all revised effluent limitations and performance goals stemming from the TMDL is that the receiving water will attain water quality objectives. As such, the relaxed effluent limitations are consistent with Resolution No. 68-16.

This Order includes a mass based limitation for dry weather lead, equal to 6.2 lbs/day, that is slightly higher than the limitation of 6.1 lbs/day in the previous Order. The

difference is due to rounding error when calculating limitations in Order R4-2003-0103 and will not result in an increase in pollutants discharged or a reduction in treatment.

This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The final limitations and performance goals in this Order meet the requirements of the Basin Plan and SIP and they hold the Discharger to performance levels that will not cause or contribute to water quality impairment or degrade receiving water quality. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Hence, the permitted discharge is consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. Water quality-based effluent limitations (WQBELs) 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 40 C.F.R. section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the SIP, which was approved by USEPA on May 18, 2000. 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 40 C.F.R. 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.

Table F-11 provides a summary of the final effluent limitations at Discharge Point No. 001.

4. Summary of Final Effluent Limitations

Table F-11. Summary of Final Effluent Limitations-Discharger Point 001

Parameter	Units	Effluent Limitations				Basis for Limitation ¹
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Conventional Pollutants						
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	--	--	E, BPJ
	lbs/day ²	3.1	4.6	--	--	
E. coli	MPN/100 ml	126 ³	--	--	235 ⁴	TMDL
Oil and Grease	mg/L	10	15	--	--	E, BPJ
	lbs/day ²	1.5	2.3	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
TSS	mg/L	50	75	--	--	E, BP
	lbs/day ²	7.7	12	--	--	

Non-Conventional Pollutants						
Chronic Toxicity	Pass or Fail,% Effect (TST)	Pass ⁵	Pass or % Effect <50 ⁵	--	--	TST & USEPA Guidance
Ammonia Nitrogen, Total (as N) ⁶	mg/L	2.0	3.9	--	--	TMDL
	lbs/day ²	0.31	0.6	--	--	
Chloride	mg/L	--	15	--	--	E, BP
	lbs/day ²	--	2.3	--	--	
Chlorine, Total Residual	mg/L	--	0.1	--	--	E, BP
	lbs/day ²	--	0.015	--	--	
Nitrate Nitrogen, Total (as N) ⁶	mg/L	8.0	16	--	--	TMDL
	lbs/day ²	1.2	2.5	--	--	
Nitrite Nitrogen, Total (as N) ⁶	mg/L	1.0	2.0	--	--	TMDL
	lbs/day ²	0.15	0.31	--	--	
Nitrite Plus Nitrate (as N) ⁶	mg/L	8.0	16	--	--	TMDL
	lbs/day ²	1.2	2.5	--	--	
Settleable Solids	ml/L	0.1	0.3	--	--	E, BPJ
Sulfate	mg/L	--	40	--	--	E, BP
	lbs/day ²	--	6.2	--	--	
Sulfide, Total (as S)	mg/L	--	1.0	--	--	E, BPJ
	lbs/day ²	--	0.15	--	--	
Temperature	°F	--	--	--	86	E, BP
Total Dissolved Solids	mg/L	--	300	--	--	E, BP
	lbs/day ²	--	46	--	--	
Turbidity	NTU	50	75	--	--	E, BPJ
Priority Pollutants						
Cadmium, Total Recoverable, Wet Weather ⁷	µg/L	1.5	3.1	--	--	TMDL
	lbs/day ²	0.00023	0.00048	--	--	
Copper, Total Recoverable, Wet Weather ⁷	µg/L	8.5	17	--	--	TMDL
	lbs/day ²	0.0013	0.0026	--	--	
Copper, Total Recoverable, Dry Weather ⁸	µg/L	18	36	--	--	TMDL
	lbs/day ²	0.0028	0.0056	--	--	
Lead, Total Recoverable, Wet Weather ⁷	µg/L	31	62	--	--	TMDL
	lbs/day ²	0.0048	0.0096	--	--	
Lead, Total Recoverable, Dry Weather ⁸	µg/L	9.0	18	--	--	TMDL
	lbs/day ²	0.0014	0.0028	--	--	
Zinc, Total Recoverable, Wet Weather ⁷	µg/L	79	159	--	--	TMDL
	lbs/day ²	0.012	0.025	--	--	
Zinc, Total Recoverable ⁸	µg/L	93	186	--	--	E, CTR/SIP, TMDL
	lbs/day ²	0.014	0.03	--	--	
Dichlorobromo-methane	µg/L	0.56	1.12	--	--	E, CTR/SIP
	lbs/day ²	0.000086	0.00017	--	--	

1. E = Existing Order; BP = Basin Plan; TMDL = Total Maximum Daily Load; CTR = California Toxic Rule; SIP = State Implementation Policy; TST = National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010)
2. The mass limitations are based on a maximum flow of 0.0185 MGD and is calculated as follows:

$$\text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)} = \text{lbs/day.}$$
3. Geometric mean
4. Single sample maximum
5. The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail". The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail".
6. Effluent concentrations shall not exceed levels that can be reliably maintained by the facility's applicable treatment technologies existing at the time of the permit issuance, re-issuance or modification.
7. The wet weather TMDL limits apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is equal to or greater than 500 cubic feet per second (approx. 320 MGD).). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).
8. Limitations apply when the maximum daily flow of the Los Angeles River at station F319-R, below Wardlow River Road is less than 500 cubic feet per second (approx. 320 MGD). Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.C).

F. LAND DISCHARGE SPECIFICATIONS – NOT APPLICABLE

G. RECYCLING SPECIFICATIONS – NOT APPLICABLE

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 C.F.R part 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of the beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

B. Groundwater

Limitations in this Order must protect not only surface receiving water beneficial uses, but also, the beneficial uses of underlying groundwater where there is a recharge beneficial use of the surface water. The Arroyo Seco Reach 3, is designated as groundwater recharge (GWR). Surface water from the Arroyo Seco Reach 3 percolates into the Raymond Groundwater Basin. Since groundwater from this Basin may be used to provide drinking water to the community, the groundwater aquifers must be protected. Therefore, Title 22-based limitations are considered to protect that drinking water supply. Title 22-based drinking water maximum contaminant levels (MCLs) for pollutants of concern were incorporated into the RPA. This permit includes a narrative receiving water limitation that the discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. 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.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. 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. Section 123.25(a)(12) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the 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

These provisions are based on 40 C.F.R. Part 123 and Order No. R4-2009-0103. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan or revisions to a TMDL.

2. Special Studies and Additional Monitoring Requirements

- a. **Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.** This provision is based on section 4 of the SIP, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

3. Best Management Practices and Pollution Prevention

- a. Storm Water Pollution Prevention, Best Management Practices, and Spill Contingency Plans
 - i. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to update, as necessary, and continue to implement a SWPPP. The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into the receiving water. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with storm water. SWPPP requirements are included as Attachment G, based on 40 CFR 122.44(k).
 - ii. **Best Management Practices Plan (BMPP).** This Order requires the Discharger to develop and implement the BMPP. The BMPP may be included as a component of the SWPPP. The purpose of the BMPP is to establish site-specific procedures that ensure proper operation and maintenance of equipment, to ensure that unauthorized non-storm water discharges (i.e., spills) do not occur at the Facility. The BMPP shall incorporate the requirements contained in Attachment G.
 - iii. **Spill Contingency Plan (SCP).** This Order requires the Discharger to develop and implement a SCP to control the discharge of pollutants. The SCP shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. This provision is included in this Order to

minimize and control the amount of pollutants discharged in case of a spill. The SCP shall be site specific and shall cover all areas of the Facility.

4. Construction, Operation, and Maintenance Specifications

a. This provision is based on the requirements of section 122.41(e).

5. Special Provisions for Municipal Facilities (POTW's Only)) – Not Applicable

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that 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 – Not Applicable

B. Effluent Monitoring

To demonstrate compliance with established effluent limitations, the Order includes monitoring for parameters for which effluent limitations have been established at a frequency of once per discharge event, with a maximum frequency of once per month during extended days of discharge.

This Order includes a new effluent monitoring requirement for aluminum. In December, 2011, USEPA published the *Drinking Water Treatment Plant Residuals Management Technical Report*, which summarized information USEPA collected to assess drinking water treatment plant discharges of treatment residuals to surface water. Based on data presented in the report (p. 9-14) water treatment plants that employ coagulation and filtration may exhibit effluent aluminum concentrations that are greater than the State Water Board primary MCL of 1,000 µg/L. The water quality objective for chemical constituents includes, by reference, the primary MCL for aluminum. The Discharger uses a polymer containing aluminum sulfate in the water treatment process. In order to evaluate the potential for effluent aluminum to exceed the numeric water quality objective, the Discharger is required to monitor for aluminum at a frequency of once per discharge event.

Order No. R4-2009-0103 required monitoring for fecal coliform and *E. coli*. The Bacteria TMDL and Basin Plan water quality objectives address only *E. coli*; therefore, this Order discontinues the monitoring requirement for fecal coliform. The required frequency for monitoring *E. coli* is increased from once per year to once per discharge event, with a maximum frequency of once per month. The increased frequency will ensure adequate information is available to determine compliance with limitations and to properly implement the TMDL.

Monitoring for all other priority pollutants for which effluent limitations have not been established is required at a frequency of once per year. Because of the intermittent nature of discharges and the potential for long periods without discharge, monitoring is required during the first seven days of discharge during the year. This shall ensure that if a discharge occurs within a year, effluent monitoring data is obtained.

C. Whole Effluent Toxicity Testing Requirements

WET testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. A chronic WET test is conducted over a period of time and may measure mortality, reproduction, and growth. For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 TST statistical approach, and is expressed as "Pass" or "Fail" for the median monthly summary results and "Pass" or "Fail" and "Percent Effect" for each individual chronic toxicity result. The rationale for chronic WET test has been discussed extensively in section IV.C.5 of this Fact Sheet.

D. Receiving Water Monitoring

1. Surface Water

Monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in the Limitations and Discharge Requirements, Receiving Water Limitations, Section V.A. Receiving water monitoring requirements included Order R4-2009-0103 have been retained without modification.

Annual monitoring for ammonia in the upstream receiving water has been established in order to conduct a reasonable potential analysis for these pollutants during the next permit reissuance.

Downstream monitoring requirements are established in this Order for pH and temperature at a frequency of once per quarter in order to translate the ammonia water quality objective from unionized to total ammonia. A new, downstream monitoring location, RSW-002, within the receiving water is required as per the MRP section II.

This Order establishes a new monitoring location, RSW-003 in the Los Angeles River. This purpose of monitoring at this station is to obtain flow data for the Los Angeles River that delineates when wet-weather versus dry weather limitations apply. The Discharger may individually estimate or measure the flow at this location using methods approved by the Regional Water Board. As an alternative, flow data is currently collected by the Los Angeles Department of Public Works (LADPW). After recording flow data, the LADPW verifies the information prior to releasing the information to interested parties.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

VIII. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the South Coulter Surface Water Treatment Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through a local newspaper.

The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at <http://www.waterboards.ca.gov/losangeles>.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process electronically at losangeles@waterboards.ca.gov with a copy to gensen.kai@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on August 10, 2015

C. Public Hearing

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

Date: **September 10, 2015**
Time: **9:00 AM**
Location: **Metropolitan Water District of Southern California**
700 North Alameda Street
Los Angeles, California

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

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

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

For instructions on how to file a petition for review, see:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling 213-576-6600.

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 Gensen Kai at (213) 576-6651.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. IMPLEMENTATION SCHEDULE

A storm water pollution prevention plan (SWPPP) shall be developed and submitted to the Regional Water Board within 90 days following the adoption of this Order. The SWPPP shall be implemented for each facility covered by this Permit within 10 days of approval from the Regional Water Board, or 6-months from the date of the submittal of the SWPPP to the Regional Water Board (whichever comes first).

II. OBJECTIVES

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, overhead coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

III. PLANNING AND ORGANIZATION

A. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Attachment E of this Permit. The SWPPP shall clearly identify the Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

B. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly,

facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

IV. SITE MAP

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A
FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL
STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION Form Pollution Prevention Team Review other plans
ASSESSMENT PHASE Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant risks
BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE Non-structural BMPs Structural BMPs Select activity and site-specific BMPs
IMPLEMENTATION PHASE Train employees Implement BMPs Conduct recordkeeping and reporting
EVALUATION / MONITORING Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP

The following information shall be included on the site map:

- A. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.
- B. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural

control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

- C. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- D. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in section VI.A.4. below have occurred.
- E. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

V. LIST OF SIGNIFICANT MATERIALS

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

- A. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in section IV.E. above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:
 - a. **Industrial Processes.** Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.
 - b. **Material Handling and Storage Areas.** Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.
 - c. **Dust and Particulate Generating Activities.** Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.
 - d. **Significant Spills and Leaks.** Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (USEPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm

water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this Permit.

- e. **Non-Storm Water Discharges.** Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D of the storm water general permit are prohibited by this Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D of the general storm water permit are authorized by this Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

- f. **Soil Erosion.** Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.
- B. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with section VIII below.

VII. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

- A. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in section VI above to determine:
1. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and
 2. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.
- B. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in section VIII below.

VIII. STORM WATER BEST MANAGEMENT PRACTICES

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (sections VI and VII above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple

pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

**TABLE B
EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND
CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY**

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery. Spills caused by topping off fuel tanks. Hosing or washing down fuel oil fuel area. Leaking storage tanks. Rainfall running off fuel oil, and rainfall running onto and off fueling area.	fuel oil	Use spill and overflow protection. Minimize run-on of storm water into the fueling area. Cover fueling area. Use dry cleanup methods rather than hosing down area. Implement proper spill prevention control program. Implement adequate preventative maintenance program to preventive tank and line leaks. Inspect fueling areas regularly to detect problems before they occur. Train employees on proper fueling, cleanup, and spill response techniques.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

A. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see section VIII.B. below). Below is a list of non-structural BMPs that should be considered:

1. **Good Housekeeping.** Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
2. **Preventive Maintenance.** Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.
3. **Spill Response.** This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
4. **Material Handling and Storage.** This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

5. **Employee Training.** This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.
6. **Waste Handling/Recycling.** This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.
7. **Recordkeeping and Internal Reporting.** This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.
8. **Erosion Control and Site Stabilization.** This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.
9. **Inspections.** This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.
10. **Quality Assurance.** This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

B. Structural BMPs.

Where non-structural BMPs as identified in section VIII.A. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

1. **Overhead Coverage.** This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.
2. **Retention Ponds.** This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.
3. **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
4. **Secondary Containment Structures.** This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
5. **Treatment.** This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

IX. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

- A. The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following: A review of all visual observation records, inspection records, and sampling and analysis results.

- B. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- C. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.
- D. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in section X.E., for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions V.D.5 of Attachment D.

X. SWPPP GENERAL REQUIREMENTS

- A. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.
- B. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.
- C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.
- D. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Permit.
- E. When any part of the SWPPP is infeasible to implement due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.
- F. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS (µG/L)

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the State Water Board and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*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.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzdine		5		
Benzo(a) pyrene		10	2	
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		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

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

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* 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.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5

Table 2d – PESTICIDES – PCBs*	GC
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* 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.

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

ATTACHMENT I – LIST OF PRIORITY POLLUTANTS

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	†
2	Arsenic	7440382	†
3	Beryllium	7440417	†
4	Cadmium	7440439	†
5a	Chromium (III)	16065831	†
5a	Chromium (VI)	18540299	†
6	Copper	7440508	†
7	Lead	7439921	†
8	Mercury	7439976	†
9	Nickel	7440020	†
11	Selenium	7782492	†
11	Silver	7440224	†
12	Thallium	7440280	†
13	Zinc	7440666	†
14	Cyanide	57125	†
15	Asbestos	1332214	†
16	2,3,7,8-TCDD	1746016	†
17	Acrolein	117028	†
18	Acrylonitrile	117131	†
19	Benzene	71432	†
20	Bromoform	75252	†
21	Carbon Tetrachloride	56235	†
22	Chlorobenzene	118907	†
23	Chlorodibromomethane	124481	†
24	Chloroethane	75003	†
25	2-Chloroethylvinyl Ether	111758	†
26	Chloroform	67663	†
27	Dichlorobromomethane	75274	†
28	1,1-Dichloroethane	75343	†
29	1,2-Dichloroethane	117062	†
30	1,1-Dichloroethylene	75354	†
31	1,2-Dichloropropane	78875	†
32	1,3-Dichloropropylene	542756	†
33	Ethylbenzene	110414	†
34	Methyl Bromide	74839	†
35	Methyl Chloride	74873	†
36	Methylene Chloride	75092	†
37	1,1,2,2-Tetrachloroethane	79345	†
38	Tetrachloroethylene	127184	†
39	Toluene	118883	†
40	1,2-Trans-Dichloroethylene	156605	†
41	1,1,1-Trichloroethane	71556	†
42	1,1,2-Trichloroethane	79005	†
43	Trichloroethylene	79016	†
44	Vinyl Chloride	75014	†
45	2-Chlorophenol	95578	†
46	2,4-Dichlorophenol	120832	†
47	2,4-Dimethylphenol	115679	†

48	2-Methyl-4,6-Dinitrophenol	534521	1
49	2,4-Dinitrophenol	51285	1
50	2-Nitrophenol	88755	1
51	4-Nitrophenol	110027	1
52	3-Methyl-4-Chlorophenol	59507	1
53	Pentachlorophenol	87865	1
54	Phenol	118952	1
55	2,4,6-Trichlorophenol	88062	1
56	Acenaphthene	83329	1
57	Acenaphthylene	208968	1
58	Anthracene	120127	1
59	Benzidine	92875	1
60	Benzo(a)Anthracene	56553	1
61	Benzo(a)Pyrene	50328	1
62	Benzo(b)Fluoranthene	205992	1
63	Benzo(ghi)Perylene	191242	1
64	Benzo(k)Fluoranthene	207089	1
65	Bis(2-Chloroethoxy)Methane	111911	1
66	Bis(2-Chloroethyl)Ether	111444	1
67	Bis(2-Chloroisopropyl)Ether	118601	1
68	Bis(2-Ethylhexyl)Phthalate	117817	1
69	4-Bromophenyl Phenyl Ether	111553	1
70	Butylbenzyl Phthalate	85687	1
71	2-Chloronaphthalene	91587	1
72	4-Chlorophenyl Phenyl Ether	7005723	1
73	Chrysene	218019	1
74	Dibenzo(a,h)Anthracene	53703	1
75	1,2-Dichlorobenzene	95501	1
76	1,3-Dichlorobenzene	541731	1
77	1,4-Dichlorobenzene	116467	1
78	3,3'-Dichlorobenzidine	91941	1
79	Diethyl Phthalate	84662	1
80	Dimethyl Phthalate	131113	1
81	Di-n-Butyl Phthalate	84742	1
82	2,4-Dinitrotoluene	121142	1
83	2,6-Dinitrotoluene	606202	1
84	Di-n-Octyl Phthalate	117840	1
85	1,2-Diphenylhydrazine	122667	1
86	Fluoranthene	206440	1
87	Fluorene	86737	1
88	Hexachlorobenzene	118741	1
89	Hexachlorobutadiene	87863	1
90	Hexachlorocyclopentadiene	77474	1
91	Hexachloroethane	67721	1
92	Indeno(1,2,3-cd)Pyrene	193395	1
93	Isophorone	78591	1
94	Naphthalene	91203	1
95	Nitrobenzene	98953	1
96	N-Nitrosodimethylamine	62759	1
97	N-Nitrosodi-n-Propylamine	621647	1
98	N-Nitrosodiphenylamine	86306	1
99	Phenanthrene	85018	1
110	Pyrene	129000	1
111	1,2,4-Trichlorobenzene	120821	1
112	Aldrin	309002	1
113	alpha-BHC	319846	1

114	beta-BHC	319857	†
115	gamma-BHC	58899	†
116	delta-BHC	319868	†
117	Chlordane	57749	†
118	4,4'-DDT	50293	†
119	4,4'-DDE	72559	†
111	4,4'-DDD	72548	†
111	Dieldrin	60571	†
112	alpha-Endosulfan	959988	†
113	beta-Endosulfan	33213659	†
114	Endosulfan Sulfate	1131178	†
115	Endrin	72208	†
116	Endrin Aldehyde	7421934	†
117	Heptachlor	76448	†
118	Heptachlor Epoxide	1124573	†
119	PCB-1116	12674112	†
120	PCB-1221	11114282	†
121	PCB-1232	11141165	†
122	PCB-1242	53469219	†
123	PCB-1248	12672296	†
124	PCB-1254	11197691	†
125	PCB-1260	11196825	†
126	Toxaphene	8001352	†

¹ Pollutants shall be analyzed using the methods described in 40 C.F.R Part 136.

ATTACHMENT J – SUMMARY OF REASONABLE POTENTIAL ANALYSIS

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