July 19, 2016

Mr. David D. De Jesus
President / C.E.O.
Covina Irrigating Company
William B. Temple Water Treatment Plant #1
146 East College Street
Covina, CA 91723

CERTIFIED MAIL NO.:
7000 0600 0029 1196 7529
RETURN RECEIPT REQUESTED

Dear Mr. De Jesus:

TRANSMITTAL OF WASTE DISCHARGE REQUIREMENTS (WDRs) / NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND TIME SCHEDULE ORDER (TSO) -- COVINA IRRIGATING COMPANY, WILLIAM B. TEMPLE WATER TREATMENT PLANT #1, 255 WEST ARROW HIGHWAY, GLENDORA, CALIFORNIA (NPDES PERMIT NO. CA0060577, CI-6849)

On May 6, 2016, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) transmitted to you the tentative Waste Discharge Requirements (WDRs) / National Pollutant Discharge Elimination System (NPDES) permit for Covina Irrigating Company (Discharger), William B. Temple Water Treatment Plant #1 (Facility). Pursuant to Division 7 of the California Water Code, the Regional Board at a public hearing held on July 14, 2016, reviewed the tentative requirements, considered all factors in the case, and adopted Order No. R4-2016-0275.

Order No. R4-2016-0275 serves as an NPDES permit, and it expires on August 31, 2021. Section 13376 of the California Water Code requires that an application/Report of Waste Discharge for a new permit must be filed at least 180 days before the expiration date.

You are required to implement the attached Monitoring and Reporting Program (MRP) on the effective date (September 1, 2016) of Order No. R4-2016-0275. Your first quarterly monitoring report for the period of October 1, 2016 through December 31, 2016 is due by February 1, 2017. Monthly monitoring for the period of September 1, 2016 through September 30, 2016 shall be submitted with the first quarterly monitoring report.

Please continue to electronically submit Self-Monitoring Reports (SMRs) using the State Water Resources Control Board's California Integrated Water Quality System (CIWQS) Program web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS web site will provide additional information for SMR submittal in the event there is a planned service interruption for electronic submittal. Also, please do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

Please convert all regulatory documents, submissions and correspondence that you would normally submit to us as hard copies to a searchable Portable Document Format (PDF). Please

reference facility name, NPDES permit number and Compliance File CI-6849 on the documents. Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov with a copy to thomas.siebels@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed above. If you need additional information regarding electronic submittal of documents please visit the Regional Water Board's website listed above and navigate to Paperless Office.

If you have any further questions, please contact Thomas Siebels at (213) 576-6756.

Sincerely,

for Cassandra Owens, Chief
Industrial Permitting Unit

Enclosure

MAILING LIST

Ms. Robyn Stuber, Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Ms. Becky Mitschele, Environmental Protection Agency, Region 9
Mr. Kenneth Wong, U.S. Army Corps of Engineers
Mr. Bryant Chesney, NOAA, National Marine Fisheries Service
Mr. Jeff Phillips, Department of Interior, U.S. Fish and Wildlife Service
Mr. William Paznokas, Department of Fish and Wildlife, Region 5
Ms. Sutida Bergquist, State Water Resource Control Board, Drinking Water Division
Ms. Teresa Henry, California Coastal Commission, South Coast Region
Mr. Theodore Johnson, Water Replenishment District of Southern California
Mr. Tommy Smith, Los Angeles County, Department of Public Works
Mr. Angelo Bellomo, Los Angeles County, Department of Public Health
Ms. Rita Kampalath, Heal the Bay
Mr. Bruce Reznik, Los Angeles WaterKeeper
Ms. Becky Hayat, Natural Resources Defense Council
Mr. Steve Sherman, Covina Irrigating Company
Ms. Mary Welch, PG Environmental, LLC
Ms. Kristy Allen, TetraTech
Mr. Jae Kim, TetraTech

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER NO. R4-2016-0275
NPDES NO. CA0060577

WASTE DISCHARGE REQUIREMENTS FOR COVINA IRRIGATING COMPANY WILLIAM B. TEMPLE WATER TREATMENT PLANT #1

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

Table 1. Discharger Information

Discharger	**Covina Irrigating Company**
Name of Facility	**William B. Temple Water Treatment Plant #1**
Facility Address	**255 West Arrow Highway**
	Glendora, CA 91740
	Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Treated sand filter backwash	34.10693° N	-117.86828° W	San Dimas Wash (lower)

Table 3. Administrative Information

This Order was adopted on:	**July 14, 2016**
This Order shall become effective on:	**September 1, 2016**
This Order shall expire on:	**August 31, 2021**
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 (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	**Minor discharge**

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 14, 2016.

Samuel Unger

Samuel Unger, P.E., Executive Officer

TENTATIVE REQUIREMENTS SENT: MAY 6, 2016

CONTENTS

TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Covina Irrigating Company (Discharger), William B. Temple Water Treatment Plant #1 (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 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 No. R4-2010-0197 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. Discharges shall be limited to a maximum of 0.18 million gallons per day (MGD) of treated sand filter backwash from Discharge Point 001. Discharges from accidental spills or other sources are 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, to San Dimas Wash (lower), or other waters of the State, are prohibited.

C. Neither the treatment nor the discharge shall create pollution, contamination, or a nuisance as defined by Section 13050 of the Water Code.

D. Discharges 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 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 at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

I. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State 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 (MRP) (Attachment E):

Table 4. Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	--	--
	lbs/day[1]	30	45	--	--
Oil and Grease	mg/L	10	15	--	--
	lbs/day[1]	15	23	--	--
pH	s.u.	--	--	6.5	8.5
Total Suspended Solids (TSS)	mg/L	50	75	--	--
	lbs/day[1]	75	113	--	--
Aluminum	µg/L	--	1,000	--	--
	lbs/day[1]	--	1.5		
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass[2, 3]	Pass or % Effect <50[2]	--	--
Boron, Total Recoverable	mg/L	--	1	--	--
	lbs/day[1]	--	1.5	--	--
Chloride	mg/L	--	150	--	--
	lbs/day[1]	--	225	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Chlorine, Total Residual	mg/L	--	0.1	--	--
	lbs/day[1]	--	0.15	--	--
Nitrite Nitrogen, Total (as N)	mg/L		1	--	--
	lbs/day[1]	--	1.5	--	--
Nitrite Plus Nitrate (as N)	mg/L	--	8	--	--
	lbs/day[1]	--	12	--	--
Settleable Solids	ml/L	0.1	0.3	--	--
Sulfate	mg/L	--	300	--	--
	lbs/day[1]	--	450	--	--
Sulfide, Total (as S)	mg/L	--	1	--	--
	lbs/day[1]	--	1.5	--	--
Temperature	ºF	--	--	--	86
Total Dissolved Solids (TDS)	mg/L	--	750	--	--
	lbs/day[1]	--	1,126	--	--
Turbidity	NTU	50	75	--	--
Copper, Total Recoverable	µg/L	5.3	14	--	--
	lbs/day[1]	0.0080	0.021	--	--
Lead, Total Recoverable, Dry-weather[4]	µg/L	3.8	8.6	--	--
	lbs/day[1]	0.0057	0.0129	--	--
Lead, Total Recoverable, Wet-weather[4]	µg/L	--	166	--	--
	lbs/day[1]	--	0.25	--	--
Chlorodibromo-methane	µg/L	34	68	--	--
	lbs/day[1]	0.051	0.102	--	--

1. The mass limitations are based on a maximum flow of 0.18 MGD and are calculated as follows:

   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

2. 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." The MMEL for chronic toxicity shall only apply when there is a discharge more than 1 day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in a "Fail."

3. This is applied as an MMEL.

4. The wet-weather TMDL limits apply when the maximum daily flow of the San Gabriel River is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. At all other times, the lead dry-weather effluent limitation is applicable. Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.B).

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications –Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge shall not cause the following in the San Dimas Wash (lower)**:**

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 5º F above the natural temperature of the receiving waters at any time or place. At no time shall the temperature be raised above 80 º F as a result of waste discharged.
3. Water Contract Standards

   In fresh water designated for water contact recreation (REC-1), the waste discharged shall not cause the following bacterial standards to be exceeded in the receiving water:

   a. Geometric Mean Limits

      i. *E. coli* density shall not exceed 126/100 mL.

   b. Single Sample Maximum Limits

      i. *E. coli* density shall not exceed 235/100 mL.
4. The concentration of dissolved oxygen to fall below 5.0 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.
5. Exceedance of the total ammonia (as N) concentrations specified in the Regional Water Board Resolution 2002-011, adopted on April 25, 2002, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including Enclosed Bays, Estuaries, and Wetlands) with the Beneficial Use Designations for Protection of "Aquatic Life."*
6. The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
7. 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.
8. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
9. 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.
10. Accumulation of bottom deposits or aquatic growths.
11. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
12. The presence of substances that result in increases of BOD that adversely affect beneficial uses.
13. 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.
14. Alteration of turbidity, or apparent color beyond present natural background levels.

15. Damage, discolor, or formation of sludge deposits on flood control structures or facilities, or overloading of the design capacity.
16. Degradation of surface water communities and populations including vertebrate, invertebrate, and plant species.
17. Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
18. Nuisance, or adversely affect beneficial uses of the receiving water.
19. 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, adversely 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 San Dimas Wash (lower).

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.

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 Best Management Practices Plan (BMPP) that includes 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's *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.

ii. A Spill Control Plan (SCP) that 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. The SCP may be substituted with an updated version of the Discharger's Spill Prevention Control and Countermeasure (SPCC) Plan, if applicable.

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 Discharger shall implement the BMPP and the SCP (or SPCC) within 10 days of the approval by the Executive Officer or no later than 90 days after submission to the Regional Water Board, whichever comes first. The plans shall be reviewed annually and at the same time. Updated information shall be submitted to the Regional Water Board within 30 days of revisions

The Discharger shall continue to implement its BMPP and SCP until the dates above pass.

4. Construction, Operation and Maintenance Specifications

a. The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this order.

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= [Xn/2 + X(n/2)+1], i.e. the midpoint between the n/2 and n/2+1 data points.

D. Multiple Sample Data Reduction

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:

1. 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;
2. If the analytical result of a single sample monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger may collect up to four additional samples within the same calendar month. All 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. The concentration of a pollutant (an arithmetic mean or a median) in these samples estimated from the “Multiple Sample Data Reduction” section above, will be used for compliance determination.
3. 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.

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 acute toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST approach is: Mean discharge IWC response ≤ (0.75 × 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: ((Mean control response - Mean discharge IWC response) / Mean control response)) × 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 ≥ 50%.

K. Bacterial Standards and Analyses

The geometric mean used for determining compliance with bacterial standards is calculated using the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for Enterococcus). The detection method used for each analysis shall be reported with the results of the analysis.

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.

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

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 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.

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

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 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.

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

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.

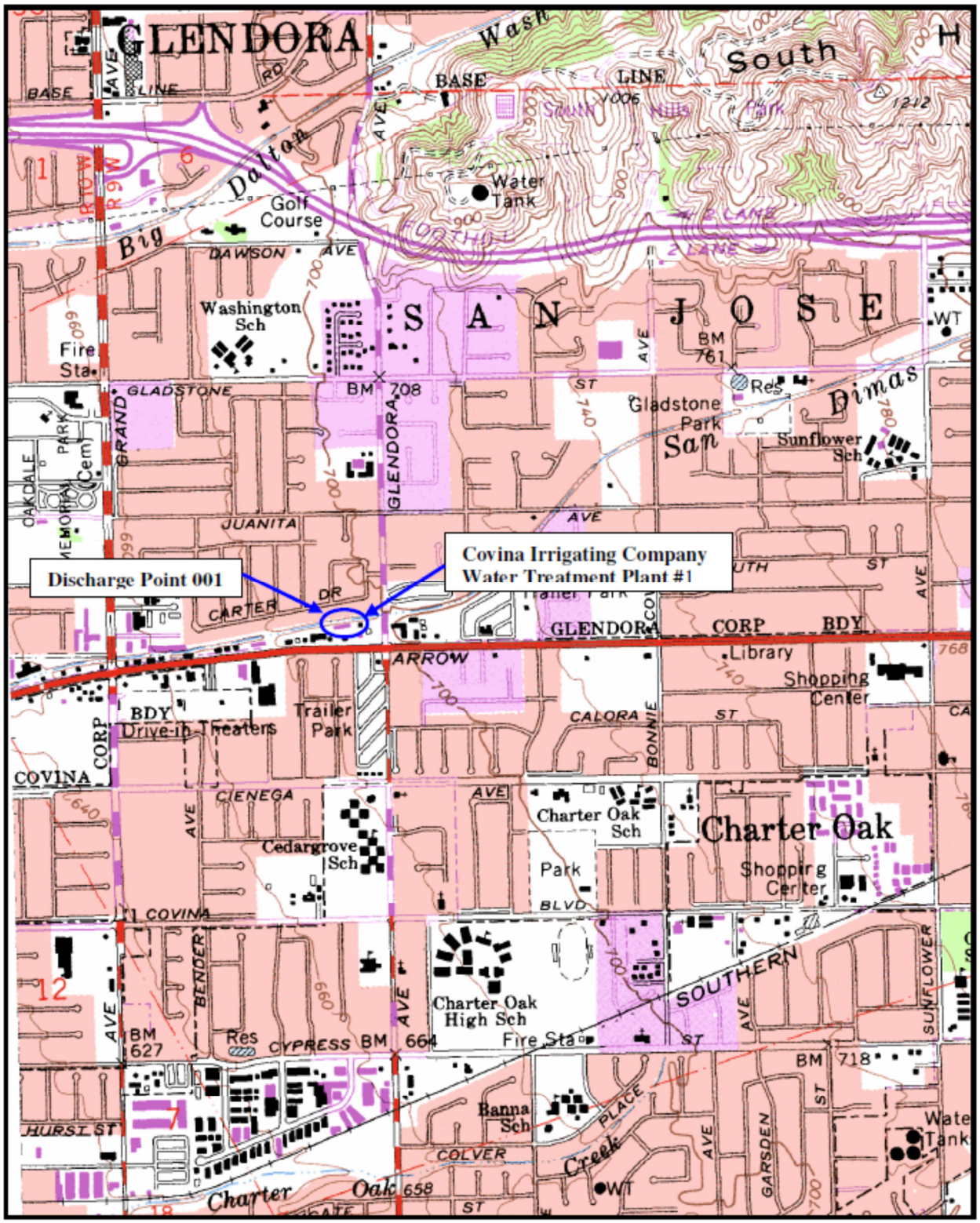
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first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

ACRONYMS AND ABBREVIATIONS

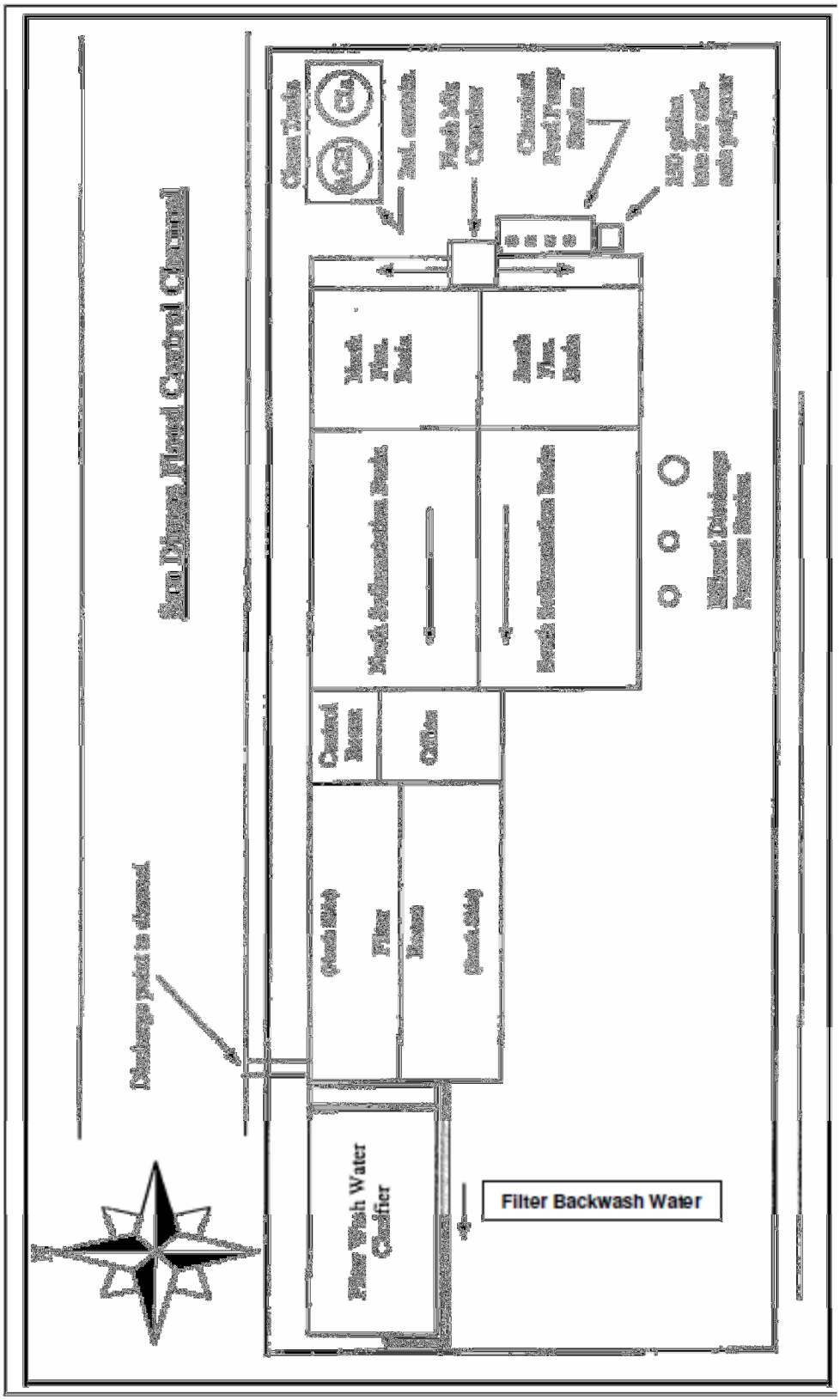
AMEL	Average Monthly Effluent Limitation
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	*Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20 ℃
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
C.F.R.	Code of Federal Regulations
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
Discharger	Covina Irrigating Company
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	State Water Resources Control Board Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
Facility	William B. Temple Water Treatment Plant #1
gpd	gallons per day
IC	Inhibition Coefficient
IC_{15}	Concentration at which the organism is 15% inhibited
IC_{25}	Concentration at which the organism is 25% inhibited
IC_{40}	Concentration at which the organism is 40% inhibited
IC_{50}	Concentration at which the organism is 50% inhibited
IWC	In-stream Waste Concentration
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MRP	Monitoring and Reporting Program
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule
OAL	Office of Administrative Law
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan

POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
Sediment Quality Plan	*Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*
SIP	State Implementation Policy (*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*)
SMR	Self-Monitoring Reports
State Water Board	California State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Test Acceptability Criteria
Thermal Plan	*Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California*
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solid
TST	Test of Significant Toxicity
TU_c	Chronic Toxicity Unit
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Waste Load Allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

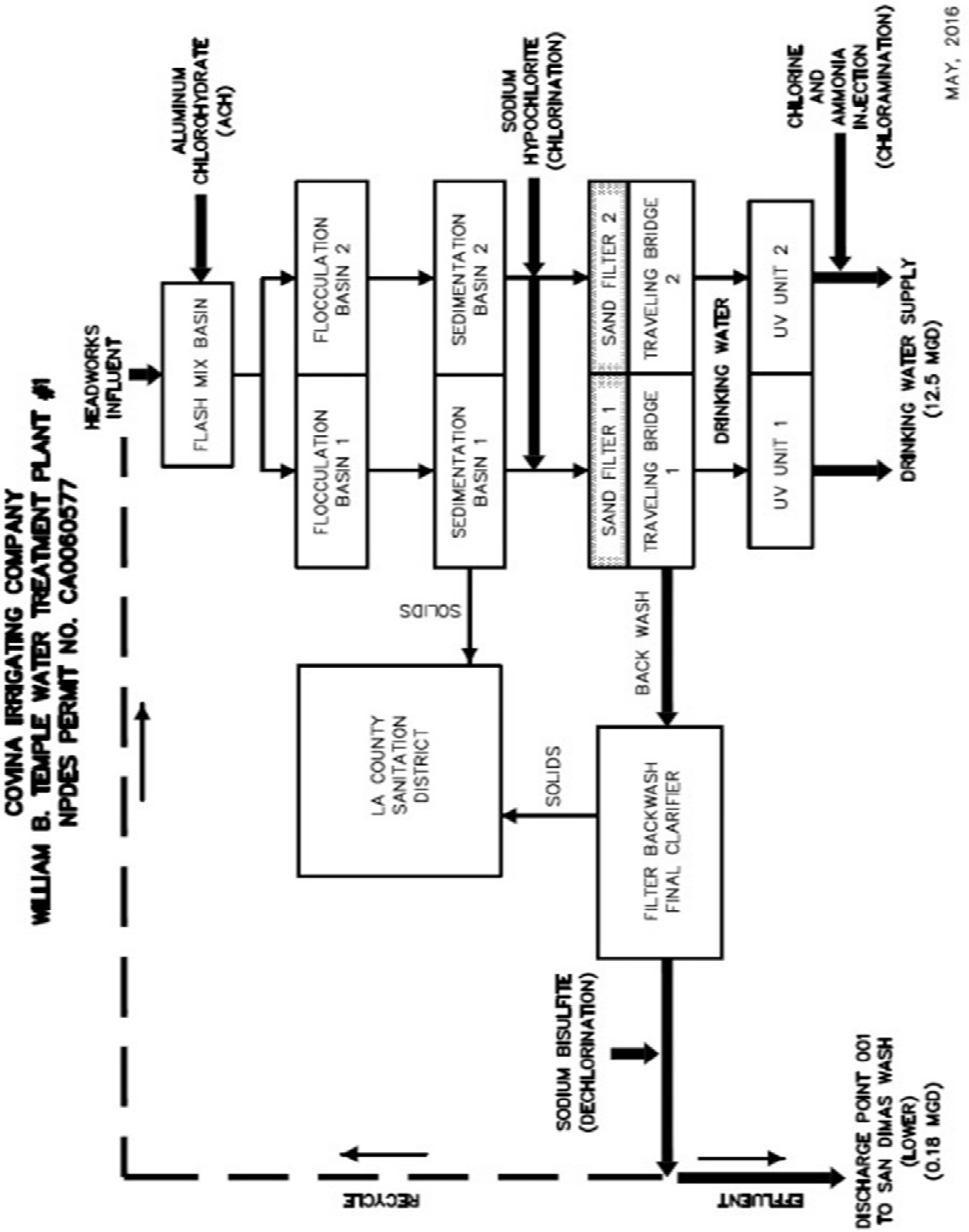
ATTACHMENT B – MAP



ATTACHMENT B – SITE PLAN



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the 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):

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).)

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).) As of December 21, 2020 all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 C.F.R. section 127.2(b), in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (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). As of December 21, 2020 all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 C.F.R. section 127.2(b), in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (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).)

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 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. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; 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 1, subchapter N or O for the measured pollutant or pollutant parameter.

C. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 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 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 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).)

6. If documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all of the relevant requirements of 40 C.F.R. part 3 (including, in all cases, subpart D of part 3) (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

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. As of

December 21, 2016 all reports and forms must be submitted electronically by the Discharger to the initial recipient, as defined in Standard Provisions – Reporting V.J, in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by the permit or if required to do so by state law. (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 which 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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).). For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically by the Discharger to the initial recipient, as defined in Standard Provisions – Reporting V.J, in compliance with this section and 40 C.F.R. part 3 (including in all cases, subpart D of part 3), section 122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 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 prior 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. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically by the Discharger to the initial recipient, as defined in Standard Provisions – Reporting V.J, in compliance with this section and 40 C.F.R. part 3 (including, in all cases, subpart D of part 3), section122.22, and 40 C.F.R. part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (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).)

J. Identification of the Initial Recipient for NPDES Electronic Reporting Data

The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in appendix A to 40 C.F.R. part 127) to the appropriate initial recipient, as determined by USEPA, and as defined in 40 C.F.R. section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see

40 C.F.R. section 127.2(c)]. USEPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

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 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));
    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).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) NO. 6849

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: 34.10693° N, longitude: -117.86828º W), 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 San Dimas Wash (lower).

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. Laboratory Certification: Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), Drinking Water Division, Environmental Laboratory Accreditation Program (ELAP) in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with 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 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 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. The MLs employed for effluent analyses to determine compliance with effluent limitations shall be lower than the effluent limitations established in this Order for a given parameter as per the 40 C.F.R. Parts 122 and 136; Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year , the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

J. The MLs employed for effluent analyses not associated with determining compliance with effluent limitations in this Order shall be lower than the lowest applicable water quality objective for a given parameter as per the 40 C.F.R. Parts 122 and 136; Use of Sufficiently Sensitive Methods for Permit Applications and Reporting. Water quality objectives for parameters may be found in Chapter 3 of the Basin Plan and the CTR (40 C.F.R. section 131.38). If the ML value is not below the water quality objective, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of all the analytical methods employed for each test, the associated laboratory QA/QC procedures, reporting levels (RLs), and method detection limits (MDLs).

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 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.

K. Water/wastewater samples must be analyzed within allowable holding time limits as specified in section 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.

L. 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.

M. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

N. Field analyses with short sample holding times such as pH, total residual chlorine, and temperature, may be performed using properly calibrated and maintained portable instruments by trained personnel acting on the Discharger's behalf, using methods in accordance with 40 C.F.R. part 136. All field instruments must be calibrated per manufacturer's instructions. A manual containing the standard operating procedures for all field analyses, including records of personnel proficiency training, instruments calibration and maintenance, and quality control procedures shall be maintained onsite, and shall be available for inspection by Regional Water Board staff. Information including instrument calibration, time of sample collection, time of analysis, name of analyst, quality assurance/quality control data, and measurement values shall be clearly documented during each field analysis and submitted to the Regional Water Board as part of the corresponding regular monitoring report.

O. 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.

P. 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%.

Q. 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.

R. 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.

S. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

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	Outfall of settling basin for sand filter backwash treatment, prior to discharging into the San Dimas Wash (lower) [Latitude: 34.10693° N, Longitude: -117.86828° W]
--	RSW-001	At a location in the receiving water (San Dimas Wash – lower) at least 50 feet upstream of the discharge point into the receiving water.
--	RSW-002	USGS flow gauging station 11085000, located in San Gabriel River Reach 3 above the Whittier Narrows Dam. This gauging station is operated and maintained by the USGS.
--	RSW-003	At a location in the receiving water (San Dimas Wash – lower) within 50 feet downstream of the discharge point into the receiving water.

III. INFLUENT MONITORING REQUIREMENTS—NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated filter backwash at Monitoring Location EFF-001 as follows:

Table E-2. Effluent Monitoring at EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD (million gallons per day)	Measured	1/Day	--
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L, lbs/day[1]	Grab	1/Quarter	[3]
Oil and Grease	mg/L, lbs/day[1]	Grab	1/Quarter	[3]
pH	s.u.	Grab	1/Quarter	[3]
Total Suspended Solids (TSS)	mg/L, lbs/day[1]	Grab	1/Month	[3]

Aluminum, Total Recoverable	mg/L	Grab	1/Month	[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	2/Year	[3]
Boron, Total Recoverable	mg/L, lbs/day[1]	Grab	2/Year	[3]
Chloride	mg/L, lbs/day[1]	Grab	1/Quarter	[3]
Chlorine, Total Residual	mg/L, lbs/day[1]	Grab	1/Month	[3]
Chronic Toxicity	Pass or Fail, % Effect[4]	24-hr. Composite[5]	1/Year	[3]
Escherichia coli (*E. coli*)	MPN/100mL	Grab	2/Year[2]	[3]
Manganese, Total Recoverable	mg/L	Grab	2/Year	[3]
Nitrite, Total (as N)	mg/L, lbs/day[1]	Grab	2/Year	[3]
Nitrite plus Nitrate (as N)	mg/L, lbs/day[1]	Grab	2/Year	[3]
Settleable Solids	ml/L	Grab	1/Quarter	[3]
Sulfate	mg/L, lbs/day[1]	Grab	2/Year	[3]
Sulfide, Total (as S)	mg/L, lbs/day[1]	Grab	2/Year	[3]
Temperature	ºF	Grab	1/Quarter	[3]
Total Dissolved Solids (TDS)	mg/L, lbs/day[1]	Grab	2/Year	[3]
Turbidity	NTU	Grab	1/Quarter	[3]
Priority Pollutants				
Copper, Total Recoverable	µg/L, lbs/day[1]	Grab	1/Month	[3]
Lead, Total Recoverable	µg/L, lbs/day[1]	Grab	1/Quarter	[3]
Chlorodibromomethane	µg/L, lbs/day[1]	Grab	1/Month	[3]
TCDD Equivalents[7]	µg/L	Grab	1/Year	[3]
Other Priority Pollutants[6]	µg/L	Grab	1/Year	[3]

[1] 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 x Ce x Q

where:

M = mass discharge for a pollutant, lbs/day
Ce = Reported concentration for a pollutant in mg/L
Q = actual discharge flow rate (MGD).

[2] Monitoring once per semiannual period (January – June, July – December). For each semiannual monitoring event, at least five (5) weekly samplings and analyses shall be conducted until a geometric mean can be obtained for each parameter (using the five most recent sample results).

[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, provided in Attachment H. Where no methods are specified for a given pollutant, the methods must be approved by the 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 ML necessary to demonstrate compliance with applicable effluent limitations.

[4] The Discharger shall conduct Whole Effluent Toxicity monitoring as outlined in section V. 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 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."

[5] 24-hour composite sample means a combination of no fewer than eight individual samples taken at intervals of not more than 1-hour such that the volumes of each of the individual samples and of the combination are proportional to the volumes of flow during each interval and during the 24-hour period respectively.

[6] Priority Pollutants as defined by the CTR included as Attachment H of this Order. All metals shall be reported as total recoverable.

[7] TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), and toxicity equivalency factors (TEFs) are provided in the Table below. The Discharger shall report all measured values of

individual congeners, including data qualifiers. When calculated TCDD equivalents the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

Dioxin-TEQ (TCDD equivalents) = $\Sigma(C_x \times TEF_x)$

where: C_x = concentration of dioxin or furan congener x

TEF_x= TEF for congener x

Minimum Levels, and Toxicity Equivalency Factors

Congeners	Minimum Level (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity

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

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

2. 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. For the receiving water, sufficient sample volume shall also be collected for subsequent TIE studies, if necessary, at each sampling event. 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.

3. Chronic Freshwater Species and Test Methods

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. part 136). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

a. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).

b. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01).

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

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted monthly for a period of three months for this Order's first required sample collection event. During 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 as referenced in this section. The sample shall also be analyzed for the parameters required for the discharge. The species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle.

Rescreening is required at least once per five (5) 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 suit 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 using enough collected effluent for a minimum of three, but not to exceed five suites.

5. 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.

a. 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) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST approach is: Mean discharge IWC response ≤0.75 × 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: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100.

b. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies 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."

c. 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.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using EC25[1].

e. 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 rational is explained in the Fact Sheet (Attachment F).

6. **Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan**

The Discharger shall prepare or update and submit a Initial Investigation TRE Work Plan (1-2 pages) within **90 days** of the permit effective date, to be ready to respond to toxicity events. The Discharger shall use the USEPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989) or most current version, as guidance. 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:

a. 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.

b. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,

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

[1] 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.

7. **Toxicity Identification Evaluation and Toxicity Reduction Evaluation Process**

   a. **Toxicity Identification Evaluation (TIE).** A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if a chronic toxicity test shows "Fail and % Effect value ≥50." The Discharger shall initiate a TIE using, 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.

   b. **Toxicity Reduction Evaluation (TRE).** When a toxicant or class of toxicants is identified, a TRE shall be performed for that toxicant. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. No later than 30 days after the source of toxicity and appropriate BMPs and/or treatment are identified, the Discharger Shall submit a TRE Corrective Action Plan to the Executive Officer for approval. At minimum, the plan shall include:

      i. The potential source of pollutant(s) causing toxicity.

      ii. Recommended BMPs and/or treatment to reduce the pollutant(s) causing toxicity.

   c. 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.

   d. The Discharger shall continue to conduct routine effluent monitoring for the duration of the TIE/TRE process.

   e. 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.

8. **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:

   a. The toxicity test results for the TST approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge.

   b. Water quality measures for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

   c. TRE/TIE results. The Executive Officer of the Regional Water Board shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses.

d. Statistical program (e.g., TST calculator, CETIS, etc.) output results for each toxicity test.

B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test.

   a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

   b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

   c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

   d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, chlorine shall not be removed from bioassay samples.

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 San Dimas Wash (lower) at RSW-001 [50 feet upstream of the location where the discharge enters the San Dimas Wash (lower)] as follows:

Table E-3. Receiving Water Monitoring Requirements – Monitoring Location RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	1/Year	[1, 2, 3]
Hardness (as mg/L $CaCO_3$)	mg/L	Grab	1/Year	[1]
E. coli	CFU/100 mL or MPN/100 mL	Grab	1/Year	[1]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Year	[1]
Dissolved Oxygen	mg/L	Grab	1/Year	[1, 3]
TDS	mg/L	Grab	1/Year	[1, 2]
Temperature	F	Grab	1/Year	[1, 2, 3]
TCDD Equivalents[5]	µg/L	Grab	1/Year	[3]
Priority Pollutants[4]	µg/L	Grab	1/Year	[1, 3]

1. 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.
2. Receiving water pH and temperature must be analyzed at the same time the effluent samples (Monitoring Location EFF-001) are collected for ammonia.
3. Receiving water pH, temperature and dissolved oxygen must be analyzed at the same time the effluent samples (Monitoring Location EFF-001) are collected for priority pollutant analysis. A hand-held field meter may be used for pH and temperature, provide the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
4. Priority pollutants as defined by the CTR included in Attachment H of this Order. All metals shall be reported as total recoverable.
5. TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (ML), and toxicity equivalency factors (TEFs) are provided in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculated TCDD equivalents the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

   Dioxin-TEQ (TCDD equivalents) = $\Sigma(C_x \times TEF_x)$
   where: C_x = concentration of dioxin or furan congener x
   TEF_x= TEF for congener x

Minimum Levels, and Toxicity Equivalency Factors		
Congeners	**Minimum Level (pg/L)**	**Toxicity Equivalence Factor (TEF)**
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

B. Monitoring Location RSW-002 (aka USSGS station 11085000)

1. The Discharger shall report the maximum daily flow at RSW-002 (USGS station 11085000), located in Reach 3 above the Whittier Narrows Dam. This station is also known as RSW-002 for the purpose of this permit. RSW-002 gauging station is operated and maintained by the USGS.

   The stream flow data can be obtained by contacting the Los Angeles County Department of Public Works at (626) 458-5100. The data for this station is downloaded once a month with a 1-2 weeks processing time for the provisional data. This information is necessary to determine the wet-weather and dry-weather condition of the river, as defined in the San Gabriel River Metals TMDL. If the gauging station is not operational, an estimated maximum daily flow may be submitted. Estimates shall be noted in the report as a qualifier.

C. Monitoring Location RSW-003

1. The Discharger shall monitor San Dimas Wash (lower) at RSW-003 [50 feet downstream of the location where the discharge enters the San Dimas Wash (lower)] as follows:

Table E-4. Receiving Water Monitoring Requirements – Monitoring Location RSW-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	1/Year	[1, 2]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Year	[1, 2]
Dissolved Oxygen	mg/L	Grab	1/Year	[1, 2]
E. coli	MPN/100 mL	Grab	1/Year	[1, 2]
Temperature	F	Grab	1/Year	[1, 2]

1. 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.
2. Receiving water pH, temperature, and ammonia must be analyzed at the same time the effluent samples (Monitoring Location EFF-001) are collected for ammonia. A hand-held field meter may be used for pH and temperature, provide the meter utilizes an EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

IX. OTHER MONITORING REQUIREMENTS – NOT APPLICABLE

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. 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.A.7

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website <http://www.waterboards.ca.gov/ciwqs/index.html>. The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned 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-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period	Start Date	Monitoring Period	SMR Due Date
1 / Day	Daily	Permit effective date	Midnight through 11:59 PM	Submit with quarterly SMR
1 / Month	Monthly	First day of each calendar month	First day of calendar month through last day of calendar month	Submit with quarterly SMR
1 / Quarter	1st Quarter	January 1	January 1 through 31 March	May 1
	2nd Quarter	April 1	April 1 through June 30	August 1
	3rd Quarter	July 1	July 1 through September 30	November 1
	4th Quarter	October 1	October 1 through December 30	February 1
2 / Year	1st Semiannual	January 1	January 1 through June 30	August 1
	2nd Semiannual	July 1	July 1 through December 30	February 1
1 / Year	Annual	January 1	January 1 through December 31	February 1

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

C. Discharge Monitoring Reports (DMRs)

As of the effective date of this Order, if the Discharger operates a "minor" facility as designated on page 1 of this Order, submittal of Discharge Monitoring Reports (DMRs) is not required. However, at any time during the term of this Order, the State Water Board or the Regional Water Board may notify and require the Discharger to electronically submit DMRs.

D. Other Reports

1. The Discharger shall report the results of any TRE/TIE required by the Special Provisions.
2. 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

   b. Updated BMPP

   c. Updated SCP

   The BMPP and the SPC status shall be reviewed at a minimum once per year. All changes or revisions to the BMPP and the SCP shall be submitted to the Regional Water Board within 30 days of revisions.

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

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	4B192526001
Discharger	Covina Irrigating Company
Name of Facility	William B. Temple Water Treatment Plant #1
Facility Address	255 West Arrow Highway
	Glendora, CA 91740
	Los Angeles County
Facility Contact, Title and Phone	Steve Sherman, Field Operations Manager, (626) 332-1502
Authorized Person to Sign and Submit Reports	Steve Sherman, Field Operations Manager, (626) 332-1502
Mailing Address	146 East College Street, Covina, CA 91723
Billing Address	SAME
Type of Facility	Water Supply (SIC Code 4941)
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	0.180 million gallons per day (MGD)
Facility Design Flow	Not Applicable
Watershed	San Gabriel River Watershed
Receiving Water	San Dimas Wash (lower)
Receiving Water Type	Inland Surface Water – Freshwater

Covina Irrigating Company (hereinafter Discharger) is the owner and operator of the William B. Temple Water Treatment Plant #1 (hereinafter Facility), a domestic water supply treatment plant located at 255 West Arrow Highway in Glendora, California.

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.

A. The Facility discharges wastewater to the San Dimas Wash (lower), a water of the United States, a tributary to the San Gabriel River within the San Gabriel River watershed. The Discharger was previously regulated by Order No. R4-2010-0197 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0060577 adopted on November 4, 2010 and expired on October 10, 2015. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

B. The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on April 8, 2015.

C. Pursuant to the provisions of the Code of Federal Regulations (CFR) [40 C.F.R. Section 122.6] and the California Code of Regulations [Title 23, Section 2235.4], Order No. R4-2010-0197 was administratively extended until the adoption of a new order.

D. A site visit was conducted on December 8, 2015, 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 water supply treatment plant located at 255 West Arrow Highway in Glendora, CA. The Facility supplies water to the City of Covina and five other purveyors. The Facility receives raw water through a 30-inch pipeline from the Morris and San Gabriel Reservoirs on the San Gabriel River, or from the State Water Project which is a water and power development and conveyance system operated by the State of California. The water filtration system is designed to treat 12.5 million gallons per day (MGD) of water, and consists of a flash mix chamber, two flocculation basins, two sedimentation basins, two banks of sand filters, and disinfection.

At the headworks of the drinking water treatment plant, aluminum chlorohydrate (ACH) polymer is added as a coagulant in a flash mix chamber. Following the flash mix chamber, the treatment stream splits into two parallel trains, each including north and south flocculation basins, sedimentation basins, and sand filtration basins, followed by disinfection units. Settled solids from the sedimentation basin and filter wastewater clarifier are collected and disposed of as a slurry to the Los Angeles County Sanitation District.

Sodium hypochlorite (12.5% solution) is added to the drinking water prior to entering the sand filters. The two north and south sand filtration units are within a building and are comprised of 170 cells that are approximately 8 inches wide, and 14.5 inches deep. Following sand filtration, drinking water is further disinfected by one of two ultraviolet units, and then injected with chlorine and ammonia (i.e., chloramination) prior to domestic water supply distribution.

The Facility has two separate covered materials storage areas located in the northeastern and northwestern corners of the property. In the northeastern section, the Facility stores sodium hypochlorite. In the northwestern section, the Facility stores ACH and ammonium hydroxide. Both areas are bermed.

A. Description of Wastewater and Biosolids Treatment and Controls

Discharges from the Facility consist of treated sand filter backwash. Filter backwashing dislodges debris that accumulates on the filter, which assists with maintaining the proper flow through the filters. The sand filters are backwashed six times per day by a traveling bridge. The backwash pumps and mechanics are located on the travelling bridge structure, with one bridge/backwash unit for each row of sand filter. The backwash pump has a design rate of 180 gallons per minute.

Filter backwash is conveyed to a one-stage clarifier (i.e., sedimentation basin that is approximately 15’ x 40’ x 6’) to remove additional solids. Water that exits the clarifier collects

in a vault where sodium bisulfite is added for dechlorination. Prior to 2014, treated backwash was discharged in entirety to the San Dimas Wash. In 2014, the Facility installed a filter backwash recycling system. As of 2014, most of the treated backwash is recycled back to the headworks of the plant after dechlorination. Typically, only a small portion is discharged to the San Dimas Wash (lower) through Discharge Point 001; however, recycling to the headworks may vary when the Facility needs to perform maintenance, repairs, or to manage influent flow to the headworks.

Discharge flows through Discharge Point 001 reported by the Discharger in Self-Monitoring Reports (SMRs) from December 1, 2010 through September 30, 2015 ranged from 0.001 MGD to 0.297 MGD (November 20, 2014) and averaged 0.084 MGD. The newly implemented recycling system is responsible for the more recently observed low flows from the Facility.

The Facility discharges up to 0.18 million gallons per day (MGD) of treated sand filter backwash wastewater. The solids removed from the backwash process are discharged to the Los Angeles County Sanitation Districts' sewer system under an industrial user permit. Sanitary wastes from the Facility are also discharged to the Los Angeles County Sanitation District's sewer system.

B. Discharge Points and Receiving Waters

Consistent with Order No. R4-2010-0197 and the submitted ROWD, the Facility proposes to discharge up to 0.180 million gallons per day (MGD) of treated sand filter backwash water through Discharge Point 001 (Latitude: 34.10693° N, Longitude: -117.86828° W) to the San Dimas Wash (lower). The San Dimas Wash (lower) flows to the San Gabriel River Reach 3, above the Whittier Narrows Dam. The San Dimas Wash (lower) is a tributary to the San Gabriel River, and both are waters of the United States in the San Gabriel River watershed.

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

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the existing Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation		Monitoring Data (December 1, 2010 through September 30, 2015)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Conventional Pollutants					
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	1.7	1.7
	lbs/day[1]	30	45	2.2	2.2
Oil and Grease	mg/L	10	15	7.1	7.1
	lbs/day[1]	15	23	2.49	2.49
pH	s.u.	6.5 - 8.5[2]		7.6 – 8.0	
Total Suspended Solids (TSS)	mg/L	50	75	74	74
	lbs/day[1]	75	113	74	74
Non-Conventional Pollutants					
Acute Toxicity	% Survival	[3]		98%-100%[4]	

Parameter	Units	Effluent Limitation		Monitoring Data (December 1, 2010 through September 30, 2015)	
		Average Monthly	Maximum Daily	Highest Average Monthly Discharge	Highest Daily Discharge
Boron, Total Recoverable	mg/L	--	1	--	0.22
	lbs/day[1]	--	1.5	--	0.28
Chloride	mg/L	--	150	--	90
	lbs/day[1]	--	225	--	116
Chlorine, Total Residual	mg/L	--	0.1	--	0.064
	lbs/day[1]	--	0.15	--	0.080
Nitrite, Total (as N)	mg/L	--	1	--	0.01
	lbs/day[1]	--	1.5	--	0.02
Nitrite + Nitrate (as N)	mg/L	--	8	--	0.57
	lbs/day[1]	--	12	--	0.71
Settleable Solids	ml/L	0.1	0.3		ND
Sulfate	mg/L	--	300	--	97
	lbs/day[1]	--	450	--	125
Sulfide, Total (as S)	mg/L	--	1	--	ND
	lbs/day[1]	--	1.5	--	ND
Temperature	ºF	--	86[2]	--	78.1
Total Dissolved Solids (TDS)	mg/L	--	750	--	370
	lbs/day[1]	--	1,126	--	475
Turbidity	NTU	50	75	6.6	6.6
Priority Pollutants					
Copper, Total Recoverable (All Year)	µg/L	5.3	14	8.2	13
	lbs/day[1]	0.0080	0.021	0.0109	0.0109
Lead, Total Recoverable (Wet-weather)[5]	µg/L	--	166	--	0.53
	lbs/day[1]	--	0.25	--	0.00040

ND = Non-Detect

1. Mass-based effluent limitations are based on a maximum permitted flow rate of 0.18 MGD.
2. Instantaneous minimum and maximum.
3. There shall be no acute toxicity in the discharge. 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 percent, and no single test shall produce less than 70 percent survival.
4. Out of five reported acute toxicity results, four were 100% survival and one was 98% survival.
5. The wet-weather TMDL based effluent limit applies when the maximum daily flow in the San Gabriel River is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dams. At all other times, no effluent limitations for lead are applicable to the discharge.

D. Compliance Summary

Table F-3. Summary of Compliance History–Discharge Point 001

Date	Monitoring Period	Violation Type	Pollutant	Limitation Value	Reported Value	Units
06/01/2011	2Q11	Monthly Average	Copper	5.3	8.2	µg/L
10/31/2011	4Q11	Monthly Average	Copper	5.3	5.5	µg/L

Two violations were identified in 2011 for exceedances of the effluent limitation for copper. Copper sulfate was previously applied to control algae in the canal where the source water was obtained. The application of copper sulfate ceased four to five years ago. No additional copper violations have occurred during the last permit term. In addition, the Discharger was cited four times for deficient reporting violations in 2011. The Regional Water Board issued Settlement Offer R4-2011-0132-M for $6,000 on August 15, 2011. The Discharger accepted the offer, and the fine was paid in full on August 23, 2011.

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.

   In addition, the Basin Plan implements the 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 San Dimas Wash (lower) are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	San Dimas Wash (lower)	Existing: Wildlife Habitat (WILD), and Preservation of Rare, Threatened or Endangered Species (RARE). Intermittent: Groundwater Recharge (GWR), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), and Warm Freshwater Habitat (WARM). Potential: Municipal and Domestic Supply (MUN)[1]
1. MUN designations under SB 88-63 and RB-03 may be considered for exceptions at a later date.		

2. **High Flow Suspension.** On July 10, 2003, the Regional Water Board adopted Resolution No. 2003-010 (High Flow Suspension) to suspend recreational beneficial uses in engineered channels during unsafe weather conditions. The High Flow Suspension became effective on November 2, 2004. The High Flow Suspension applies to water contact recreational activities associated with the swimmable goal as expressed in the federal Clean Water Act section 101(a)(2) and regulated under the REC-1 use, non-contact water recreation involving incidental water contact regulated under the REC-2 use, and the associated bacteriological objectives set to protect those activities. Water quality objectives set to protect (1) other recreational uses associated with the fishable goal as expressed in the federal CWA section 101(a)(2) and regulated under the REC-1 use and (2) other REC-2 uses (e.g., uses involving the aesthetic aspects of water) shall remain in effect at all times for water bodies to which the High Flow Suspension applies. The High Flow Suspension shall apply on days with rainfall greater than or equal to ½ inch and the 24 hours following the end of the ½-inch or greater rain event, as measured at the nearest local rain gauge, using local Doppler radar, or using widely accepted rainfall estimation methods. The High Flow Suspension only applies to engineered channels, defined as inland, flowing surface water bodies with a box, Vshaped or trapezoidal configuration that have been lined on the sides and/or bottom with concrete. San Dimas Wash (lower) has been identified by the Regional Water Board as a water body to which the High Flow Suspension applies.

Table F-5. Basin Plan Beneficial Uses of Groundwaters

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	San Gabriel Valley[1]	Existing: Municipal and Domestic Supply (MUN), Industrial Service Supply (IND), Industrial Process Supply (PROC), and Agricultural Supply (AGR)
1. Raymond Basin was formerly a sub-basin of San Gabriel Valley and is now a separate basin. The main San Gabriel Basin was formerly separated into Eastern and Western area. Because these areas had the same beneficial use as Puente Basin, all three areas have been combined into San Gabriel Valley. Any groundwater up-gradient of these areas is subject to down-gradient beneficial uses and objectives. See pages 2-30 of the Basin Plan for more details.		

3. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. This plan contains a maximum temperature limitation of 86°F for thermal discharges to the Estuaries. Requirements of this Order implement the Thermal Plan. Additionally, a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, evaluated the optimum temperatures for a number of aquatic species prevalent in the region including: steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam and blue mussel. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and it is consistent with the maximum temperature limitation of 86°F in the Thermal Plan. Therefore, a maximum effluent temperature limitation of 86°F is included in this Order.

4. **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.

5. **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.

6. **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.

7. **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.

8. **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.

9. **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.

10. **Trash Provisions Requirements.** The State Water Board adopted a narrative water quality objective and implementation requirements to control trash, through resolution 2015-0019 *"Amendment to the Ocean Plan and Part I Trash Provisions of the Water Quality control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California"* (Trash provisions). The Resolution was approved by OAL on December 2, 2015 and became effective upon USEPA approval on January 12, 2016. The Trash Provisions apply to all surface waters of the State, with the exception of those waters within the jurisdiction of the Los Angeles Regional Water Board where trash or debris Total Maximum Daily Loads (TMDLs) are in effect prior to the effective date of the Trash Amendments. There are currently no Trash TMDLs for the San Dimas Wash (lower); therefore the discharger described in this Order is subject to Trash Provisions. This Order includes a prohibition of discharges of trash to surface water. In addition, through requirements to implement BMPs, this Order, satisfies conditions of the Trash Provisions.

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 2012 303(d) list of impaired water bodies on June 26, 2015. 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 2012 303(d) list and have been scheduled for TMDL development.

The Facility discharges to the San Dimas Wash (lower). Based on the 2012 303(d) list, the San Dimas Wash is not classified as impaired for any parameters. San Dimas Wash is tributary to Big Dalton Wash, which is tributary to Walnut Creek, which is tributary to San Gabriel River Reach 3, which is immediately upstream of San Gabriel River Reach 2. San Gabriel River Reach 2 is included on the 303(d) list of impaired waterbodies for lead and coliform bacteria. The TMDLs adopted for San Gabriel River watershed are described below:

1. **Metals TMDL for San Gabriel River and Tributaries:** To address the impairment in the San Gabriel River watershed due to lead, on March 26, 2007 the USEPA established the "*Total Maximum Daily Load for Metals and Selenium, San Gabriel River and Impaired Tributaries*" (San Gabriel River Metals TMDL). The TMDL includes wet-weather

allocations for lead that are assigned to all upstream reaches and tributaries of San Gabriel River Reach 2, including San Dimas Wash. Therefore, this order includes effluent limitations for wet-weather lead that implement the requirements of the TMDL.

2. **Implementation Plan for San Gabriel River Metals TMDL.** The Regional Water Board adopted an *Implementation Plan for the Total Maximum Daily Loads for Metals and Selenium in the San Gabriel River and Impaired Tributaries*, Resolution R13-004, on June 6, 2013. The implementation plan was approved the State Water Board by Resolution R2014-0012, on March 4, 2014. The Implementation Plan became effective upon Office of Administrative Law (OAL) approval on October 13, 2014. This Order includes effluent limitations for lead that have been developed based on the Implementation Plan for San Gabriel River Metals TMDL.

E. Other Plans, Polices 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 No. R4-2010-0197. The USEPA *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 Discharger operates a domestic water supply treatment plant that treats and filters water from the Morris and San Gabriel Reservoirs on the San Gabriel River or from the State Water Project. The raw source water entering the headworks via a 30-inch pipe may contain oil and grease, settleable solids, TSS, chloride and sulfate. During the filtration process, these constituents may settle in the filter vessels, may loosen from the filter surfaces, and may be present in the discharge of filter backwash water. As a result, oil and grease, settleable solids, TSS, chloride and sulfate are considered pollutants of concern.

Chemical additions commonly used in the preparation and treatment of drinking water may also be pollutants of concern. After the raw water intake, aluminum chlorohydrate (ACH) polymer is added as a coagulant in the flash mixer. Sodium hypochlorite is added after the sedimentation process for chlorination. As a result, there is a potential for aluminum and residual chlorine to be present in the discharge of the filter backwash water. According to U.S EPA's Guidance Manual entitled, *Filter Backwash Recycling Rule* (December 2002), total and dissolved manganese is expected in the discharge of filter backwash at drinking water facilities *(Appendix F: Characteristics of Spent Filter Backwash Water, Table F-1).* Further, the list of pollutants of concern is based on constituents that are regulated in the Basin Plan, CTR, TMDLs or that have been detected in the effluent, such as bacteria, copper, lead, TCDD-equivalents and chlorodibromomethane. Because the multitude of chemicals in the discharge may in combination have toxic effects, chronic toxicity is a pollutant 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 San Dimas Wash (lower) that are regulated by 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 erformance 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

National ELGs have not been developed for discharges from drinking water supply and treatment facilities.

The technology-based effluent limitations for BOD, oil and grease, TSS, settleable solids, turbidity, and sulfide were developed using BPJ and are retained from existing Order No. R4-2010-0197. In issuing the previous Order, the Regional Water Board appropriately considered the treatment technology of settling. The numeric concentration-based limitations for BOD, oil and grease, settleable solids, TSS, turbidity, and sulfide are consistent with technology-based limitations included in other Orders within the State for similar types of discharges. In addition, the limitations for these pollutants are equal to the numeric limitations in the general permit for non-process wastewater (Order No R4-2010-0197, General NPDES permit No. CAG994003). Pursuant to state and federal antibacksliding regulations, this Order retains effluent limitations for these pollutants as technology-based effluent limitations.

Table F-6. Summary of Technology-based Effluent Limitations at Discharge Point 001.

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
BOD	mg/L	20	30
	lbs/day[1]	30	45
Oil and Grease	mg/L	10	15
	lbs/day[1]	15	23
Settleable Solids	ml/L	0.1	0.3
Sulfide	mg/L	--	1
	lbs/day[1]	--	1.5
TSS	mg/L	50	75
	lbs/day[1]	75	113
Turbidity	NTU	50	75

1. The mass (lbs/day) limitations are based on a maximum flow of 0.180 MGD and are calculated as follows:
Mass (lbs/day) = Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor)

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 beneficial 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.

The specific procedures for determining reasonable potential and, if necessary, calculating WQBELs, are contained in the SIP.

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 and groundwater 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 San Dimas Wash (lower). 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 San Dimas Wash (lower) and as a result, freshwater criteria apply. The CTR criteria for freshwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the San Dimas Wash (lower), a water of the United States in the vicinity of the discharge.

The San Dimas Wash (lower) has the potential beneficial use of MUN with an intermittent beneficial use of groundwater recharge. In addition, the underlying groundwater basin has the 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 a result, the drinking water MCLs from Title 22 are included in the RPA.

The San Gabriel River Valley is designated as GWR (Intermittent). Surface water from the San Dimas Wash (lower) percolates into the San Gabriel Valley Basin, as per Table 2-2 of Beneficial Used of Ground Waters. Groundwater from this Basin may be used to provide drinking water to the community. Therefore, the groundwater aquifers should be protected, and Title 22-based limits are needed to protect the drinking water supply. The MCLs were considered during the reasonable potential analysis (RPA) and subsequent development of effluent limits included in this Order.

Some water quality criteria are hardness or pH dependent. The Discharger collected hardness data for five sample dates between December 1, 2011 and September 30, 2012. For development of this Order, the median receiving water hardness value of 140 mg/L (as $CaCO_3$) was used to calculate metals limits, except those based on TMDLs. The TMDL uses a median hardness value of 175 mg/L as $CaCO_3$ for lead during wet weather. A pH of 6.5 s.u., the minimum pH allowed by this Order, was used for evaluation of reasonable potential.

Table F-7 summarizes the applicable water quality criteria/objective for priority pollutants either limited in the prior 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	Organisms Only	
		µg/L	µg/L	µg/L	µg/L	µg/L
1	Antimony	6	--	--	4,300	6
2	Arsenic	10	340	150	--	10
3	Beryllium	4	--	--	--	4
4	Cadmium	3.21	6.6	3.21	--	5
5a	Chromium (III)	273	2,287	273	--	--
5b	Chromium (VI)	10	16	11	--	10
6	Copper	12	19	12	--	1,300
7	Lead	4.9	125	4.9	--	15
7	Lead (Wet-Weather)	166	166	--	--	--
8	Mercury	0.051	Reserved	Reserved	0.051	2
9	Nickel	69	624	69	4,600	100
10	Selenium	5	20	5	--	50
11	Silver	7.2	7.2	--	--	100
13	Zinc	159	159	159	--	--
16	TCDD Equivalents	1.4×10^{-8}	--	--	1.4×10^{-8}	--
20	Bromoform	80	--	--	360	80[1]
23	Chlorodibromomethane	34	--	--	34	80[1]
26	Chloroform	80	--	--	--	80[1]
27	Dichlorobromomethane	46	--	--	46	80[1]
53	Pentachlorophenol	4.05	5.28	4.05	8.2	--
70	Butylbenzyl Phthalate	5,200	--	--	5,200	--
79	Diethyl Phthalate	120,000	--	--	120,000	--
81	Di-n-Butyl Phthalate	12,000	--	--	12,000	--

On March 26, 2007, USEPA approved the *TMDL for Metals and Selenium in the San Gabriel River and Impaired Tributaries* (Metals TMDL for San Gabriel River and Tributaries). The TMDL establishes wet-weather Waste Load Allocations (WLAs) for lead in the San Gabriel River, Reach 2. These WLAs are applicable when the maximum daily flow in the river is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. Section 2.2.3 of the TMDL indicates wet-weather allocations apply for all upstream reaches and tributaries in the watershed because they may drain to impaired reaches during wet-weather. Therefore, wet-weather WLAs established for the San Gabriel River Reach 2 for lead apply to this discharge because the discharge drains to San Dimas Wash (lower) which is a tributary upstream of the San Gabriel River Reach 2.

The WLAs in the TMDL for metals in the San Gabriel River are based on the CTR criteria for the protection of aquatic life. The TMDL targets, and resulting WLAs, are expressed in terms of total recoverable metals; attainment of numeric targets expressed as total recoverable metals will ensure attainment of the dissolved CTR criterion. Median hardness values of all collected data during the TMDL development were used to calculate reach-specific targets for lead in the San Gabriel River Reach 2 (i.e., 175 mg/L

as $CaCO_3$). The concentration-based wet-weather WLA for lead in the San Gabriel River Reach 2 is 166 µg/L.

The Implementation Plan for the San Gabriel River Metals TMDL provides the following direction to permit writers for incorporating the requirements of the TMDL:

> *"Effluent limitations consistent with the assumptions and requirements of the WLAs shall be incorporated into each permit at the time of issuance, modification, or renewal.*
>
> *"Effluent limitations shall be consistent with concentration-based WLAs established for non-storm water point sources in this TMDL. Permit writers may translate applicable WLAs into final effluent limitations for the major, minor, and general NPDES permits by applying the effluent limitation derivation procedures in Section 1.4 of the State Water Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) or other appropriate methodologies subject to Executive Officer approval. Wet-weather WLAs will not be used to determine monthly permit limits, but will only be used in the determination of a daily limit. For permits subject to both dry- and wet-weather WLAs, permit writers would write a monthly limit based on the dry-weather WLA and two separate daily maximum limits based on dry- and wet-weather WLAs."*

The discharge of treated sand filter backwash from the Facility occurs year-round and is therefore subject to both dry- and wet-weather effluent limitations for total recoverable lead using SIP procedures. The wet-weather maximum daily effluent limitation (MDEL) is based on the WLA established in the Metals TMDL for San Gabriel River and Tributaries (i.e. median hardness value of 175 mg/L as $CaCO_3$). The dry-weather MDEL and average monthly effluent limitation (AMEL) are based on CTR criteria using the median hardness of 140 mg/L as $CaCO_3$ determined from receiving water monitoring results.

3. Determining the Need for WQBELs

In accordance with section 1.3 of the SIP, the Regional Water Board conducts a 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≥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 Regional Water Board developed WQBELs for wet-weather lead based on WLAs included in the Metals TMDL for San Gabriel River and Tributaries. The Regional Water Board developed WQBELs for this pollutant pursuant to 40 C.F.R. section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis for effluent limitations consistent with the assumption and requirements of a TMDL WLA. Similarly, the SIP at Section 1.3 recognizes that a reasonable potential analysis is not appropriate if a TMDL has been developed.

The RPA was performed for the priority pollutants regulated in the CTR for which data were available. Effluent data collected by the Discharger at Monitoring Location EFF-001 from December 2010 through September 2015 were included in the analysis. Based on the RPA, copper, lead, and chlorodibromomethane exhibited reasonable potential to cause or contribute to an excursion above water quality standards. As a result, this Order includes effluent limitations for these parameters. Refer to Attachment J for a summary of the RPA and associated effluent limitation calculations.

Order No. R4-2010-0197 established effluent limitations for copper based on the requirements of the CTR and SIP, and lead (wet-weather) based on the Metals TMDL for the San Gabriel River and Tributaries. Based on the newly available data and the RPA, copper continues to display reasonable potential and effluent limitations for copper have been retained in this Order. In addition, lead, and chlorodibromomethane display reasonable potential and effluent limitations for these pollutants have been added to this Order.

The following table summarizes results from the RPA:

Table F-8. Summary of Reasonable Potential Analysis

CTR No.	Parameter	Applicable Water Quality Criteria (µg/L)	Maximum Effluent Concentration (µg/L)	Maximum Detected Receiving Water Concentration (µg/L)	RPA Result – Need Limitation?	Reason
1	Antimony	6	0.62	1.2	No	MEC<C & B<=C
2	Arsenic	10	6.3	6.7	No	MEC<C & B<=C
3	Beryllium	4	0.021	<0.022	No	MEC<C & B is ND
4	Cadmium	3.21	0.48	0.31	No	MEC<C & B<=C
5a	Chromium (III)	272.65	0.76	3.2	No	MEC<C & B<=C
5b	Chromium (IV)	10	0.34	0.81	No	MEC<C & B<=C

CTR No.	Parameter	Applicable Water Quality Criteria (µg/L)	Maximum Effluent Concentration (µg/L)	Maximum Detected Receiving Water Concentration (µg/L)	RPA Result – Need Limitation?	Reason
6	Copper, Total Recoverable	12.44	13	15	Yes	MEC>=C
7	Lead, Total Recoverable	4.88	0.53	7.8	Yes	B>C, Detected in Effluent
7	Lead, Total Recoverable (Wet-weather)	166	0.53	7.8	Yes	TMDL[1]
8	Mercury	0.051	0.011	0.012	No	MEC<C & B<=C
9	Nickel	69.34	2.8	3.8	No	MEC<C & B<=C
10	Selenium	5	0.71	0.68	No	MEC<C & B<=C
11	Silver	7.24	0.015	<0.008	No	MEC<C & B is ND
13	Zinc	159.34	120	78	No	MEC<C & B<=C
20	Bromoform	80	30	<0.32	No	MEC<C & B is ND
23	Chlorodibromo-methane	34	37	<0.38	Yes	MEC>=C
26	Chloroform	80	45	<0.25	No	MEC<C & B is ND
27	Dichlorobromo-methane	46	21	<0.28	No	MEC<C & B is ND
53	Pentachlorophenol	4.05	ND	1.1	No	MEC<C & B<=C
70	Butylbenzyl Phthalate	5,200	0.47	0.5	No	MEC<C & B<=C
79	Diethyl Phthalate	120,000	ND	13	No	MEC<C & B<=C
81	Di-n-Butyl Phthalate	12,000	0.39	0.38	No	MEC<C & B<=C

1. A wet -weather limitation is required for this constituent, regardless of reasonable potential according to the Metals TMDL for the San Gabriel River and Tributaries Implementation Plan.

4. WQBEL Calculations

a. If a 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. WQBELs for lead (wet-weather) are based on the TMDL applicable to San Gabriel River Reach 2 and tributaries.

c. The final WQBELs for copper, dry-weather lead, wet-weather lead and chlorodibromomethane are calculated following the procedures based on the steady-state model, available in Section 1.4 of the SIP. The final WQBELs for lead includes a wet-weather MDEL, a dry-weather MDEL and a dry-weather AMEL based on the Implementation Plan for the San Gabriel River Metals TMDL and CTR criteria.

d. Mixing zones and dilution credits are usually not appropriate for dischargers because many of the streams in the Region have minimal upstream flows. Therefore, no dilution credit is being allowed in this Order.

e. **WQBELs Calculation Example**

Using copper and lead (wet-weather) as examples, the following demonstrates how WQBELs were established for this Order. The tables in Attachment J summarize the development and calculation of all WQBELs for this Order using the process described below.

Concentration-Based Effluent Limitations

Two sets of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and the MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL are selected as the WQBEL.

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)when C>B, and

ECA = C when C≤B,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. The hardness used for this RPA was the median upstream hardness of 140 mg/L as $CaCO_3$ and a pH of 6.5 s.u. (minimum Basin Plan Objective) was used for pH-dependent criteria.

D = The dilution credit, and

B = The ambient background concentration

As discussed above, this Order does not allow dilution because of the nature of the receiving water; therefore:

ECA = C

For copper (total recoverable), the applicable water quality criteria are:

$ECA_{acute\ (copper)}$ = 19.22 µg/L
$ECA_{chronic\ (copper)}$ = 12.44 µg/L

When a WLA has been established through a TMDL for a parameter, the applicable WLA is set equal to the ECA. For lead (total recoverable), where a wet-weather WLA has been established through a TMDL, the wet-weather WLA is set equal to the ECA_{acute}.

For lead (total recoverable), the applicable water quality criteria are:

$ECA_{acute\ (lead)}$ = 166 µg/L (wet-weather, TMDL WLA)
$ECA_{acute\ (lead)}$ = 125 µg/L (dry-weather, CTR criteria)
$ECA_{chronic\ (lead)}$ = 4.88 µg/L (dry-weather, CTR criteria)

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.

$LTA_{wet\text{-}weather} = ECA_{wet\text{-}weather} \times Multiplier_{acute99}$

$LTA_{dry\text{-}weather} = ECA_{dry\text{-}weather} \times Multiplier_{chronic99}$

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 copper, the following data were used to develop the acute and chronic LTA using Table 1 of the SIP:

No. of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
55	0.745	0.266	0.462

$LTA_{acute\ (copper)} = ECA_{acute} \times Multiplier_{acute99} = 19.22\ \mu g/L \times 0.266 = 5.11\ \mu g/L$

$LTA_{chronic\ (copper)} = ECA_{chronic} \times Multiplier_{chronic99} = 12.44\ \mu g/L \times 0.462 = 5.74\ \mu g/L$

For lead, the following data were used to develop the acute and chronic LTA using Table 1 of the SIP:

No. of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
17	0.789	0.25	0.44

$LTA_{acute\ (lead)} = ECA_{acute} \times Multiplier_{acute99} = 166\ \mu g/L \times 0.25 = 42\ \mu g/L$ (wet-weather)

$LTA_{acute\ (lead)} = ECA_{acute} \times Multiplier_{acute99} = 125\ \mu g/L \times 0.25 = 32\ \mu g/L$ (dry-weather)

$LTA_{chronic\ (lead)} = ECA_{chronic} \times Multiplier_{chronic99} = 4.88 \times 0.44 = 2.17\ \mu g/L$ (dry-weather)

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

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$.

For copper, the most limiting LTA was the $LTA_{acute\ (copper)}$.

$LTA_{copper} – LTA_{acute\ (copper)} = 5.11\ \mu g/L$

For lead (wet-weather), there is only one LTA, the LTA_{acute}

$LTA_{lead} – LTA_{acute\ (lead)} = 42\ \mu g/L$

For lead (dry-weather), the most limiting LTA was the $LTA_{chronic\ (lead)}$

$LTA_{lead} – LTA_{chronic\ (lead)} = 2.1\ \mu g/L$

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.

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

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

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 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	0.745	3.76	1.70

$AMEL_{aquatic\ life\ (copper)} = LTA \times AMEL_{multiplier95} = 5.11\ \mu g/L \times 1.70 = 8.7\ \mu g/L$

$MDEL_{aquatic\ life\ (copper)} = LTA \times MDEL_{multiplier99} = 5.11\ \mu g/L \times 3.76 = 19\ \mu g/L$

For lead, the following data was used to develop the AMEL and MDEL for aquatic life using equations provided in Section 1.4, Step 5 of the SIP:

No. of Samples Per Month	CV	$Multiplier_{MDEL99}$	$Multiplier_{AMEL95}$
4	0.789	3.96	1.74

Wet-weather

$AMEL_{aquatic\ life\ (lead)} = LTA \times AMEL_{multiplier95} =$ Not applicable (based on TMDL)

$MDEL_{aquatic\ life\ (lead)} = LTA \times MDEL_{multiplier99} = 42\ \mu g/L \times 3.96 = 166\ \mu g/L$

Dry-weather

$AMEL_{aquatic\ life\ (lead)} = LTA \times AMEL_{multiplier95} = 2.17\ \mu g/L \times 1.74 = 3.8\ \mu g/L$

$MDEL_{aquatic\ life\ (lead)} = LTA \times MDEL_{multiplier99} = 2.17\ \mu g/L \times 3.96 = 8.6\ \mu g/L$

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

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

For copper:

$AMEL_{human\ health}$ = 1,300 µg/L

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.

$$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL}/Multiplier_{AMEL})$$

For copper,

No. of Samples Per Month	CV	$Multiplier_{MDEL}/Multiplier_{AMEL}$
4	0.745	2.22

$MDEL_{human\ health}$ = 1,300 µg/L x 2.22 µg/L = 2,886 µg/L

For lead (wet-weather), this is not necessary because the WLA is based on a TMDL. For lead (dry-weather):

$AMEL_{human\ health}$ = 15 µg/L

No. of Samples Per Month	CV	$Multiplier_{MDEL}/Multiplier_{AMEL}$
4	0.789	2.28

$MDEL_{human\ health}$ = 15 µg/L x 2.28 µg/L = 34.16 µg/L

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

For copper the AMEL and MDEL based on aquatic life criteria are established as the WQBELs.

For lead (dry-weather), the AMEL and MDEL based on aquatic life criteria are established as the WQBELs. For lead (wet-weather), the effluent limitation is based on the wet-weather WLA. The wet-weather MDEL for lead is applicable when the maximum daily flow in the river is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 of the San Gabriel River, just above the Whittier Narrows Dam.

5. WQBELs Based on Basin Plan Objectives

The following Basin Plan Objectives, evaluated with respect to effluent monitoring data and Facility Operations, are applicable to the Discharger:

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.
Aluminum	µg/L	The Basin Plan incorporates the California Primary MCLs, by reference, under Chemical Constituents.
Ammonia	mg/L	Waters not designated cold and/or MIGR $1-hour\ avg. = \frac{0.411}{(1+10^{7.204-pH})} + \frac{58.4}{(1+10^{pH-7.204})}$ Early Life Stages (ELS) Present $30-day\ avg. =$ $\left(\frac{0.0577}{(1+10^{7.688-pH})} + \frac{2.487}{(1+10^{pH-7.688})}\right) \times MIN\ (2.85, 1.45\ X\ 10^{0.028*(25-T)})$ Where T = temperature expressed in ºC The freshwater four-day average objective is 2.5 times the 30-day average objective.
Bacteria	MPN/100 ml	Geometric Mean *E. coli* density shall not exceed 126/100 ml Single Sample Limits *E. coli* density shall not exceed 576/100 ml.
Boron	mg/L	1
Chloride	mg/L	150
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 WARM shall not be depressed below 5 mg/L as a result of waste discharges.
Nitrogen[1]	mg/L	8
Sulfate	mg/L	300
TDS	mg/L	750

Parameter	Units	Water Quality Objectives
Temperature	ºF	For waters designated WARM, water temperature shall not be altered by more than 5 °F above the natural temperature. At no time shall these WARM-designated waters be raised above 80 °F as a result of waste discharges.
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. Nitrate-nitrogen plus nitrite-nitrogen

a. **pH.** This Order includes effluent and receiving water limitations for pH to ensure compliance with the Basin Plan Objective for pH. These limitations are retained from Order No. R4-2010-0197.

b. **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 (WTP) 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 California Department of Public Health primary MCL of 1,000 µg/L. The Basin Plan water quality objective for chemical constituents includes, by reference, the primary MCL for aluminum. The Discharger uses a polymer containing aluminum chlorohydrate (ACH) in the water treatment process. As discussed in section IV.C.2, the San Dimas Wash (lower) has a beneficial use of GWR; therefore, California Primary MCLs are applied to be protective of the underlying groundwater. Effluent monitoring data from December 1, 2010 through September 30, 2015 exhibited aluminum concentrations ranging from 130 µg/L to 1,400 µg/L. Because the effluent concentration exceeded the California Primary MCL, this Order includes an average monthly effluent limitation for aluminum equal to the MCL.

c. **Ammonia.** No effluent ammonia data were available to evaluate compliance with the ammonia basin plan objective. Effluent and receiving water monitoring requirements are included in this Order to gather data necessary for future evaluation.

d. **Bacteria.** The Basin Plan contains bacteria water quality objectives for the protection of REC-1 and REC-2 beneficial uses. Order No. R4-2010-0197 included receiving water limitations for *e.coli* to protect the intermittent beneficial uses of the receiving water. This Order retains the receiving water effluent limitations for *e.coli*.

e. **Chlorine, Total Residual**. The Basin Plan requires that chloride 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. Order No. R4-2010-0197 contained an MDEL for total residual chlorine equal to 0.1 mg/L. This limitation is retained.

f. **Dissolved Oxygen.** This Order addresses dissolved oxygen through receiving water monitoring and receiving water limitations. This limitation is retained from Order No. R4-2010-0197.

g. **Temperature.** The Basin Plan lists narrative temperature requirements for the receiving water and references the Thermal Plan. The thermal plan contains

temperature objectives for surface waters, and contains a maximum temperature limitation of 86°F for thermal discharges to the Estuaries. Requirements of this Order implement the Thermal Plan. Additionally, a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, evaluated the optimum temperatures for a number of aquatic species prevalent in the region including steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel, A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life and it is consistent with the maximum temperature limitation of 86°F in the Thermal Plan. Therefore, a maximum effluent temperature limitation of 86°F is included in this Order.

h. **TDS, Sulfate, Chloride, Boron and Nitrogen.** Water quality objectives for these pollutants are established in the Basin Plan in Table 3-10. Order No. R4-2010-0197 contained effluent limitations for TDS, sulfate, chloride, boron and nitrogen and they have been included in this Order.

i. **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 a result, 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 retained from Order No. R4-2010-0197.

j. **Turbidity.** Order No. R4-2010-0197 included a BPJ technology-based effluent limitation for turbidity of 50 mg/L (AMEL) and 75 mg/L (MDEL) that is retained in this Order. The turbidity limitations will ensure compliance with the Basin Plan objectives.

6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. Order No. R4-2010-0197 contained acute toxicity limitations and monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%,

with no single test having less than 70% survival. For the period of January 26, 2010 through March 24, 2014, effluent acute toxicity monitoring results were 100% survival for 3 sampling events, and 98% survival in one additional sampling event.

For this Order, chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects. The discharge from the Facility may include a number of chemicals, which individually may not be present in toxic concentrations, but may exhibit aggregate toxic effects as a whole. As a result, this Order prescribes a chronic toxicity effluent limitation and requires chronic toxicity monitoring for the effluent at Discharge Point 001 in place of the acute toxicity requirements. The whole effluent toxicity testing requirements are based on USEPA's 2010 Test of Significant Toxicity (TST) statistical approach. In 2010, USEPA endorsed peer-reviewed Test of Significant Toxicity (TST) statistical approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) as an improved hypothesis-testing tool to evaluate data from USEPA's toxicity test methods. The TST statistical approach more reliably identifies toxicity than the current no observed effect concentration (NOEC) statistical approach. TST statistical results are more transparent than the point estimate model approach used for acute toxicity. The point estimate model approach is not designed to address the question of statistical uncertainty around the modeled toxicity test result in relation to the effect level of concern. The TST statistical approach is the superior statistical approach for addressing statistical uncertainty when used in combination with USEPA's toxicity text methods and is implemented in federal permits issued by USEPA Region 9.

The TST's null hypothesis for chronic toxicity is:

H0: Mean response (In-stream Waste Concentration (IWC) in % effluent)

≤ 0.75 mean response (Control).

Results obtained from a single-concentration chronic toxicity test are analyzed using the TST approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P." Chronic toxicity results are expressed as "Pass" or "Fail" and "% Effect." The chronic toxicity IWCs for Discharge Point 001 is 100 percent effluent. The MDEL for chronic toxicity will be 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."

7. Final WQBELs

A summary of the WQBELs are described in the following table:

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

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous	
				Minimum	Maximum
pH	s.u.	--	--	6.5	8.5
Aluminum	µg/L	--	1,000	--	--
	lbs/day[1]	--	1.5	--	--
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass[2, 3]	Pass or % Effect <50[2]	--	--
Boron, Total Recoverable	mg/L	--	1	--	--
	lbs/day[1]	--	1.5	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous	
				Minimum	Maximum
Chloride	mg/L	--	150	--	--
	lbs/day[1]	--	225	--	--
Chlorine, Total Residual	mg/L	--	0.1	--	--
	lbs/day[1]	--	0.15	--	--
Nitrite Nitrogen, Total (as N)	mg/L		1	--	--
	lbs/day[1]	--	1.5	--	--
Nitrite Plus Nitrate (as N)	mg/L	--	8	--	--
	lbs/day[1]	--	12	--	--
Sulfate	mg/L	--	300	--	--
	lbs/day[1]	--	450	--	--
Temperature	ºF	--	--	--	86
TDS	mg/L	--	750	--	--
	lbs/day[1]	--	1,126	--	--
Copper, Total Recoverable	µg/L	5.3	14	--	--
	lbs/day[1]	0.0080	0.021	--	--
Lead, Total Recoverable, Dry-weather[4]	µg/L	3.8	8.6	--	--
	lbs/day[1]	0.0057	0.0129	--	--
Lead, Total Recoverable, Wet-weather[4]	µg/L	--	166	--	--
	lbs/day[1]	--	0.25	--	--
Chlorodibromomethane	µg/L	34	68	--	--
	lbs/day[1]	0.051	0.102	--	--

1. The mass limitations are based on a maximum flow of 0.18 MGD and is calculated as follows:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
2. The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail." The MDEL shall be reported as "Pass" or "Fail." The MMEL for chronic toxicity shall only apply when there is a discharge more than 1 day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in a "Fail."
3. This is applied as an MMEL.
4. The wet-weather TMDL limits apply when the maximum daily flow of the San Gabriel River is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. At all other times, the lead dry-weather effluent limitation is applicable. Flow information can be obtained by contacting the Los Angeles County Department of Public Works (see MRP sections II and VIII.B).

D. Final Effluent Limitation Considerations

Section 401(o) of the CWA and section 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in existing Orders based on the submitted sampling data. Existing effluent limitations for pH, temperature, residual chlorine, TDS, nitrite + nitrate (as N), nitrite, total (as N), sulfate, chloride, and boron are based on the Basin Plan. In addition, a wet-weather effluent limitation (MDEL) for lead based on the Metals TMDL for the San Gabriel River and Tributaries is included in this Order. Order No. R4-2010-0197 included effluent limitations for BOD, oil and grease, TSS, settleable solids, sulfide and turbidity based on BPJ. The Regional Water Board has determined that these numeric

effluent limitations continue to be applicable to the Facility. These limitations are retained in this Order.

New effluent limitations for copper, lead (dry-weather) and chlorodibromomethane have been calculated and are based on the results of the RPA. The new calculated effluent limitations for copper are less stringent than the copper limitations in Order No. R4-2010-0197. The difference is largely due to a higher median hardness value obtained from more recent receiving water monitoring data. Since early 2012, after the application of copper sulfide to source water ceased, the Facility has been able to meet the copper limitations. The copper effluent limitations from Order No. R4-2010-0197 will be retained in this Order.

This Order includes a new effluent limitation for aluminum, based on a reasonable potential for the discharge to exceed the Basin Plan Objective for aluminum, as expressed as an MCL

This Order establishes a chronic toxicity limitation, which replaces the acute toxicity limitation contained in Order No. R4-2010-0197. For the discharge covered under this Order, the chronic toxicity limit provides an equal or greater level of protection than the acute toxicity limitation. As a result, a chronic toxicity effluent limitation is included in this Order to ensure that the receiving water meets the Basin Plan narrative water quality objective for toxicity.

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.

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.

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 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. Mass-based Effluent Limitations

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 C.F.R. 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions: (1) for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations; (2) when applicable standards or limitations are expressed in terms of other units of measure; or (3) if in establishing technology-based permit limitation on a case-by-case

basis, limitation based on mass are infeasible because the mass or pollutant cannot be related to a measure of production.

Mass-based effluent limitations are established using the following formula:

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)

where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, oil and grease, settleable solids, turbidity and sulfide. Restrictions on these pollutants are discussed in section IV.B of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

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 WQBELs 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.

5. Summary of Final Effluent Limitations

The following table provides a summary of the final effluent limitations at Discharge Point No. 001:

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

Parameter	Units	Effluent Limitations				Basis for Limitation[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Biochemical Oxygen Demand (BOD) (5-day @20 Deg. C)	mg/L	20	30	--	--	E, BPJ
	lbs/day[2]	30	45	--	--	
Oil and Grease	mg/L	10	15	--	--	E, BPJ
	lbs/day[2]	15	23	--	--	
pH	s.u.	--	--	6.5	8.5	E, BP
TSS	mg/L	50	75	--	--	E, BPJ
	lbs/day[2]	75	113	--	--	
Aluminum	µg/L	--	1,000	--	--	BP, MCL
	lbs/day[2]	--	1.5	--	--	
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass[3, 4]	Pass or % Effect <50[3]	--	--	BP
Boron, Total Recoverable	mg/L	--	1	--	--	E, BP
	lbs/day[2]	--	1.5	--	--	
Chloride	mg/L	--	150	--	--	E, BP
	lbs/day[2]	--	225	--	--	
Chlorine, Total Residual	mg/L	--	0.1	--	--	E, BP
	lbs/day[2]	--	0.15	--	--	
Nitrite Nitrogen, Total (as N)	mg/L		1	--	--	E, BP
	lbs/day[2]	--	1.5	--	--	
Nitrite Plus Nitrate (as N)	mg/L	--	8	--	--	E, BP
	lbs/day[2]	--	12	--	--	
Settleable Solids	ml/L	0.1	0.3	--	--	E, BPJ
Sulfate	mg/L	--	300	--	--	E, BP
	lbs/day[2]	--	450	--	--	
Sulfide, Total (as S)	mg/L	--	1	--	--	E, BPJ
	lbs/day[2]	--	1.5	--	--	
Temperature	ºF	--	--	--	86	E, BP
TDS	mg/L	--	750	--	--	E, BP
	lbs/day[2]	--	1,126	--	--	
Turbidity	NTU	50	75	--	--	E, BPJ
Copper, Total Recoverable	µg/L	5.3	14	--	--	E, CTR, SIP
	lbs/day[2]	0.0080	0.021	--	--	
Lead, Total Recoverable, Dry-weather[5]	µg/L	3.8	8.6	--	--	CTR, SIP
	lbs/day[2]	0.0057	0.0129	--	--	
Lead, Total Recoverable, Wet-weather[5]	µg/L	--	166	--	--	E, TMDL[6]
	lbs/day[2]	--	0.25	--	--	

Parameter	Units	Effluent Limitations				Basis for Limitation[1]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Chlorodibromo-methane	µg/L	34	68	--	--	CTR, SIP
	lbs/day[2]	0.051	0.102	--	--	

1. E = Existing Order; BP = Basin Plan; TMDL = Total Maximum Daily Load; CTR = California Toxic Rule; SIP = State Implementation Policy; BPJ = Best Professional Judgement; MCL = Maximum Contaminant Level.
2. The mass limitations are based on a maximum flow of 0.18 MGD and is calculated as follows:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
3. The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail." The MDEL shall be reported as "Pass" or "Fail." The MMEL for chronic toxicity shall only apply when there is a discharge more than 1 day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in a "Fail."
4. This is applied as an MMEL.
5. The wet-weather TMDL limits apply when the maximum daily flow of the San Gabriel River is equal to or greater than 260 cubic feet per second (cfs) as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. At all other times, the lead dry-weather effluent limitation is applicable. Flow information can be obtained by contacting the Los Angeles Department of Public Works (see MRP sections II and VIII.B).
6. The effluent limitation is based on the Metals TMDL for the San Gabriel River and Tributaries WLA and calculated using the CTR-SIP process.

E. Interim Effluent Limitations – Not Applicable

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 beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan. If there is reasonable potential or a USEPA-approved TMDL WLA, then WQBELs are included in this Order to ensure protection of the water quality standards.

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 San Dimas Wash (lower), is designated as groundwater recharge (GWR) (Intermittent). Surface water from the San Dimas Wash (lower) percolates into the San Gabriel Valley Groundwater Basin. The groundwater aquifers must be protected because groundwater from this Basin may be used to provide drinking water to the community. Therefore, Title 22-based limitations are considered to protect the drinking water supply. Title 22-based drinking water 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. R4-2010-0197. 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. **Best Management Practices Plan (BMPP)**. This Order requires the Discharger to update and implement a BMPP. The purpose of the BMPP is to establish site-specific procedures for proper operation and maintenance of equipment, to ensure that unauthorized non-storm water discharges (i.e., spills) do not occur at the Facility. 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 discharges to surface waters.

b. **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 (POTWs 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

Effluent monitoring for pollutants expected to be present in the discharge will be required at Monitoring Location EFF-001 as prescribed in Table E-2 in the MRP. To demonstrate compliance with established effluent limitations, the Order retains the monitoring requirements for bacteria, BOD, oil and grease, pH, TSS, chronic toxicity, boron, chloride, total residual chlorine, nitrite nitrogen (total as N), nitrite plus nitrate (as N), settleable solids, sulfate, sulfide, temperature, TDS, turbidity, copper, and lead. Flow shall continue to be monitored at 1 time / day.

This Order establishes new monitoring requirements for chlorodibromomethane. The monitoring frequency will be once per month to evaluate compliance with new effluent limitations.

According to U.S EPA's Guidance Manual entitled, *Filter Backwash Recycling Rule* (December 2002), total and dissolved manganese is expected in the discharge of filter backwash at drinking water facilities *(Appendix F: Characteristics of Spent Filter Backwash Water, Table F-1).* As a result, this Order retains the effluent monitoring requirements for manganese.

This Order includes new monitoring requirements for ammonia at twice per year in order to ensure that effluent concentrations do not cause or contribute to exceedances of Basin Plan objectives.

The SIP states that the Regional Water Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This Order requires the Discharger to conduct annual monitoring for the remaining CTR priority pollutants at Discharge Point 001. The Regional Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Regional Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but not acute effects. Chronic toxicity is a more stringent requirement than acute toxicity. For this Order, chronic toxicity monitoring in the discharge is required. The chronic toxicity testing requirements are based on USEPA's 2010 TST statistical approach.

D. Receiving Water Monitoring

1. Surface Water

a. Monitoring Location RSW-001

Monitoring requirements from Order No. R4-2010-0197 at the annual upstream receiving water station RSW-001, 50 feet upstream of the discharge point to the receiving water, San Dimas Wash (lower), are retained for this Order. This Order requires the Discharger to conduct receiving water monitoring of the CTR priority pollutants, including TCDD equivalents, at Monitoring Location RSW-001. Additionally, the Discharger must analyze pH, temperature, and hardness, of the upstream receiving water at the same time the samples are collected for priority pollutants analyses.

The receiving water monitoring requirement for salinity has been deleted and monitoring for total dissolved solids has been added.

b. Monitoring Location RSW-002

The Discharger is required to report the maximum daily flow in the San Gabriel River (UGSS Station 11085000) located in Reach 3 above the Whittier Narrows Dam. This stream flow data can be obtained by contacting LACDPW at (626) 458-5100. The data for this station is downloaded once a month with a 1-2 weeks processing time. This data shall be used to determine wet-weather conditions for compliance with the effluent limitations set forth in this Order. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

c. Monitoring Location RSW-003

This Order requires the Discharger to establish a new downstream monitoring location within San Dimas Wash (in addition to RSW-001). At the new location, RSW-003, the Discharger is required to monitor for pH, temperature, *E. coli*, dissolved oxygen, and ammonia in order to determine compliance with receiving water limitations. Monitoring requirements are included in the MRP (Attachment E) to determine compliance with the receiving water limitations established in Limitations and Discharge Requirements, Receiving Water Limitations, Section V.A.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements – Not Applicable

VIII. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Covina Irrigating Company - William B. Temple Water Treatment Plant #1. 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 email and public notice.

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 thomas.siebels@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 **June 7, 2016.**

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: July 14, 2016
Time: 9:00 AM
Location: The Metropolitan Water District of Southern California Board Room
700 North Alameda Street
Los Angeles, CA 90012

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 Thomas Siebels at (213) 576-6756.

ATTACHMENT G – STATE WATER BOARD MINIMUM LEVELS

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 in micrograms/liter (µg/L) 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	
Benzidine		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		

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
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

Table 2d – PESTICIDES – PCBs*	GC
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
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 H – LIST OF PRIORITY POLLUTANTS

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

CTR Number	Parameter	CAS Number	Analytical Methods
47	2,4-Dimethylphenol	115679	[1]
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]

CTR Number	Parameter	CAS Number	Analytical Methods
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	[1]
115	gamma-BHC	58899	[1]
116	delta-BHC	319868	[1]
117	Chlordane	57749	[1]
118	4,4'-DDT	50293	[1]
119	4,4'-DDE	72559	[1]
111	4,4'-DDD	72548	[1]
111	Dieldrin	60571	[1]
112	alpha-Endosulfan	959988	[1]
113	beta-Endosulfan	33213659	[1]
114	Endosulfan Sulfate	1131178	[1]
115	Endrin	72208	[1]
116	Endrin Aldehyde	7421934	[1]
117	Heptachlor	76448	[1]
118	Heptachlor Epoxide	1124573	[1]
119	PCB-1116	12674112	[1]
120	PCB-1221	11114282	[1]
121	PCB-1232	11141165	[1]
122	PCB-1242	53469219	[1]
123	PCB-1248	12672296	[1]
124	PCB-1254	11197691	[1]
125	PCB-1260	11196825	[1]
126	Toxaphene	8001352	[1]

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

ATTACHMENT I – SUMMARY OF REASONABLE POTENTIAL ANALYSIS AND WQBELS CALCULATIONS

Attachment I

Reasonable Potential Analysis and Effluent Limitations

Covina Irrigating Company- William R. Temple - Water Treatment Plant #1- Discharge Point No. 001

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L)							REASONABLE POTENTIAL ANALYSIS (RPA)									
					Freshwater		Saltwater		Human Health for consumption of:												
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only	Lowest C or WLAs	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
1	Antimony	ug/L		0.62					6.00	4300.00	6.00	No	No	Y	N		1.2		B<=C, Step 7		No
2	Arsenic	ug/L		6.3	340.00	150.00			10.00		10.00	No	No	Y	N		6.7		B<=C, Step 7		No
3	Beryllium	ug/L		0.021					4.00	Narrative	4.00	No	No	Y	Y	0.022		N	No detected value of B, Step 7		No
4	Cadmium	ug/L		0.48	6.60	3.21			5.00	Narrative	3.21	No	No	Y	N		0.31		B<=C, Step 7		No
5a	Chromium (III)			0.76	2287.48	272.65				Narrative	272.65	No	No	Y	N		3.2		B<=C, Step 7		No
5b	Chromium (VI)	ug/L		0.34	16.00	11.00			10.00	Narrative	10.00	No	No	Y	N		0.81		B<=C, Step 7		No
6	Copper	ug/L	0.745	13	19.22	12.44			1300.00		12.44	Yes	Yes	Y	N		15		Limit required, B>C & pollutant dete		Yes
7	Lead	ug/L	0.789	0.53	125.30	4.88			15.00	Narrative	4.88	No	No	Y	N		7.8		Limit required, B>C & pollutant dete		Yes
7	Lead, Wet Weather	ug/L	0.789	0.53	166.00						166.00	No	No	Y	N		7.8		B<=C, Step 7		No
8	Mercury	ug/L		0.01100	Reserved	Reserved			2.00000	0.05100	0.05100	No	No	Y	N		0.01200		B<=C, Step 7		No
9	Nickel	ug/L		2.8	623.68	69.34			100.00	4600.00	69.34	No	No	Y	N		3.8		B<=C, Step 7		No
10	Selenium	ug/L		0.71	20.00	5.00			50.00	Narrative	5.00	No	No	Y	N		0.68		B<=C, Step 7		No
11	Silver	ug/L		0.015	7.24				100.00		7.24	No	No	Y	Y	0.008		N	No detected value of B, Step 7		No
12	Thallium	ug/L		0.02					2.00	6.30	2.00	No	No	Y	Y	0.009		N	No detected value of B, Step 7		No
13	Zinc	ug/L		120	159.34	159.34					159.3	No	No	Y	N		78		B<=C, Step 7		No
14	Cyanide	ug/L		2.7	22.00	5.20				220000.0	5.20	No	No	Y	Y	2.7		N	No detected value of B, Step 7		No
15	Asbestos	MFL		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.2		N	No Criteria	No Criteria	Uc
16	2,3,7,8 TCDD	ug/L								1.4E-08	1.40E-08			Y	Y	0.521		Y	No detected value of B, Step 7		No
	TCDD Equivalents	ug/L	0							1.4E-08	1.40E-08			Y	N		8.38E-09		B<=C, Step 7		No
17	Acrolein	ug/L		2.2						780.0	780	No	No	Y	Y	2.2		N	No detected value of B, Step 7		No
18	Acrylonitrile	ug/L								0.66	0.660			Y	Y	1.8		Y	No detected value of B, Step 7		No
19	Benzene	ug/L		0.23						71	71.0	No	No	Y	Y	0.23		N	No detected value of B, Step 7		No
20	Bromoform	ug/L		30					80.0	360	80.0	No	No	Y	Y	0.32		N	No detected value of B, Step 7		No
21	Carbon Tetrachloride	ug/L		0.33						4.4	4.40	No	No	Y	Y	0.33		N	No detected value of B, Step 7		No
22	Chlorobenzene	ug/L		0.21						21000	21000	No	No	Y	Y	0.21		N	No detected value of B, Step 7		No
23	Chlorodibromomethane	ug/L	0.6	37					80.00	34	34.00	Yes	Yes	Y	Y	0.38		N	No detected value of B, Step 7		Yes
24	Chloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.23		N	No Criteria	No Criteria	Uc
25	2-Chloroethylvinyl ether	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.28		N	No Criteria	No Criteria	Uc
26	Chloroform	ug/L		45					80.00		80.00	No	No	Y	Y	0.25		N	No detected value of B, Step 7		No
27	Dichlorobromomethane	ug/L		21					80.00	46	46.00	No	No	Y	Y	0.28		N	No detected value of B, Step 7		No
28	1,1-Dichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.21		N	No Criteria	No Criteria	Uc
29	1,2-Dichloroethane	ug/L		0.24						99	99.00	No	No	Y	Y	0.24		N	No detected value of B, Step 7		No
30	1,1-Dichloroethylene	ug/L		0.39						3.2	3.200	No	No	Y	Y	0.39		N	No detected value of B, Step 7		No
31	1,2-Dichloropropane	ug/L		0.18						39	39.00	No	No	Y	Y	0.18		N	No detected value of B, Step 7		No
32	1,3-Dichloropropylene	ug/L		0.22						1700	1700	No	No	Y	Y	0.22		N	No detected value of B, Step 7		No
33	Ethylbenzene	ug/L		0.17						29000	29000	No	No	Y	Y	0.17		N	No detected value of B, Step 7		No
34	Methyl Bromide	ug/L		0.47						4000	4000	No	No	Y	Y	0.47		N	No detected value of B, Step 7		No
35	Methyl Chloride	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.26		N	No Criteria	No Criteria	Uc
36	Methylene Chloride	ug/L		0.25						1600	1600.0	No	No	Y	Y	0.25		N	No detected value of B, Step 7		No
37	1,1,2,2-Tetrachloroethane	ug/L		0.18						11	11.00	No	No	Y	Y	0.18		N	No detected value of B, Step 7		No
38	Tetrachloroethylene	ug/L		0.27						8.85	8.9	No	No	Y	Y	0.25		N	No detected value of B, Step 7		No
39	Toluene	ug/L		0.22						200000	200000	No	No	Y	Y	0.22		N	No detected value of B, Step 7		No
40	1,2-Trans-Dichloroethylene	ug/L		0.23						140000	140000	No	No	Y	Y	0.23		N	No detected value of B, Step 7		No
41	1,1,1-Trichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.38		N	No Criteria	No Criteria	Uc
42	1,1,2-Trichloroethane	ug/L		0.25						42	42.0	No	No	Y	Y	0.25		N	No detected value of B, Step 7		No
43	Trichloroethylene	ug/L		0.37						81	81.0	No	No	Y	Y	0.37		N	No detected value of B, Step 7		No
44	Vinyl Chloride	ug/L		0.33						525	525	No	No	Y	Y	0.33		N	No detected value of B, Step 7		No
45	2-Chlorophenol	ug/L		0.28						400	400	No	No	Y	Y	0.28		N	No detected value of B, Step 7		No
46	2,4-Dichlorophenol	ug/L		0.26						790	790	No	No	Y	Y	0.26		N	No detected value of B, Step 7		No
47	2,4-Dimethylphenol	ug/L		0.3						2300	2300	No	No	Y	Y	0.3		N	No detected value of B, Step 7		No
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	ug/L		0.33						765	765.0	No	No	Y	Y	0.33		N	No detected value of B, Step 7		No
49	2,4-Dinitrophenol	ug/L		1.6						14000	14000	No	No	Y	Y	1.6		N	No detected value of B, Step 7		No
50	2-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.26		N	No Criteria	No Criteria	Uc
51	4-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.45		N	No Criteria	No Criteria	Uc
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.23		N	No Criteria	No Criteria	Uc
53	Pentachlorophenol	ug/L		0.19	5.28	4.05				8.2	4.05	No	No	Y	N		1.1		B<=C, Step 7		No
54	Phenol	ug/L		0.16						4600000	4600000	No	No	Y	Y	0.16		N	No detected value of B, Step 7		No
55	2,4,6-Trichlorophenol	ug/L		0.22						6.5	6.5	No	No	Y	Y	0.22		N	No detected value of B, Step 7		No
56	Acenaphthene	ug/L		0.31						2700	2700	No	No	Y	Y	0.31		N	No detected value of B, Step 7		No
57	Acenaphthylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.26		N	No Criteria	No Criteria	Uc
58	Anthracene	ug/L		0.28						110000	110000	No	No	Y	Y	0.28		N	No detected value of B, Step 7		No
59	Benzidine	ug/L								0.00054	0.00054			Y	Y	0.7		Y	No detected value of B, Step 7		No
60	Benzo(a)Anthracene	ug/L								0.049	0.049			Y	Y	0.19		Y	No detected value of B, Step 7		No
61	Benzo(a)Pyrene	ug/L								0.049	0.049			Y	Y	0.13		Y	No detected value of B, Step 7		No
62	Benzo(b)Fluoranthene	ug/L								0.049	0.0490			Y	Y	0.14		Y	No detected value of B, Step 7		No
63	Benzo(ghi)Perylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.1		N	No Criteria	No Criteria	Uc
64	Benzo(k)Fluoranthene	ug/L								0.049	0.0490			Y	Y	0.22		Y	No detected value of B, Step 7		No
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.25		N	No Criteria	No Criteria	Uc
66	Bis(2-Chloroethyl)Ether	ug/L		0.27						1.4	1.400	No	No	Y	Y	0.27		N	No detected value of B, Step 7		No
67	Bis(2-Chloroisopropyl)Ether	ug/L		0.38						170000	170000	No	No	Y	Y	0.38		N	No detected value of B, Step 7		No
68	Bis(2-Ethylhexyl)Phthalate	ug/L		2.3						5.9	5.9	No	No	Y	Y	2.3		N	No detected value of B, Step 7		No
69	4-Bromophenyl Phenyl Ethe	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.23		N	No Criteria	No Criteria	Uc
70	Butylbenzyl Phthalate	ug/L		0.47						5200	5200	No	No	Y	N		0.5		B<=C, Step 7		No
71	2-Chloronaphthalene	ug/L		0.26						4300	4300	No	No	Y	Y	0.26		N	No detected value of B, Step 7		No
72	4-Chlorophenyl Phenyl Ethe	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.24		N	No Criteria	No Criteria	Uc
73	Chrysene	ug/L								0.049	0.049			Y	Y	0.19		Y	No detected value of B, Step 7		No
74	Dibenzo(a,h)Anthracene	ug/L								0.049	0.0490			Y	Y	0.08		Y	No detected value of B, Step 7		No
75	1,2-Dichlorobenzene	ug/L		0.3						17000	17000	No	No	Y	Y	0.3		N	No detected value of B, Step 7		No
76	1,3-Dichlorobenzene	ug/L		0.35						2600	2600	No	No	Y	Y	0.35		N	No detected value of B, Step 7		No
77	1,4-Dichlorobenzene	ug/L		0.32						2600	2600	No	No	Y	Y	0.32		N	No detected value of B, Step 7		No

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS – Organisms only: AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	AQUATIC LIFE CALCULATIONS – Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
1	Antimony	MEC<C & B<=C															No Limit	
2	Arsenic	MEC<C & B<=C															No Limit	
3	Beryllium	MEC<C & B is ND															No Limit	
4	Cadmium	MEC<C & B<=C															No Limit	
5a	Chromium (III)	MEC<C & B<=C															No Limit	
5b	Chromium (VI)	MEC<C & B<=C															No Limit	
6	Copper	MEC>=C	1300	2.22	2883	0.27	5.11	0.46	5.74	5.11	1.70	8.67	3.76	19.22123	8.7	19.2		
7	Lead	B>C & pollutant detected in ef	15	2.28	34.16	0.25	31.63	0.44	2.17	2.17	1.74	3.77	3.96	8.582064	3.8	8.6		
7	Lead, Wet Weather	MEC<C & B<=C				0.25	41.91	0.44		41.91	1.74	72.89	3.96	166	73	166		
8	Mercury	MEC<C & B<=C															No Limit	
9	Nickel	MEC<C & B<=C															No Limit	
10	Selenium	MEC<C & B<=C															No Limit	
11	Silver	MEC<C & B is ND															No Limit	
12	Thallium	MEC<C & B is ND															No Limit	
13	Zinc	MEC<C & B<=C															No Limit	
14	Cyanide	MEC<C & B is ND															No Limit	
15	Asbestos	No Criteria															No Limit	
16	2,3,7,8 TCDD	UD; effluent ND, MDL>C, and															No Limit	
	TCDD Equivalents	UD; effluent ND, MDL>C & B-															No Limit	
17	Acrolein	MEC<C & B is ND															No Limit	
18	Acrylonitrile	UD; effluent ND, MDL>C, and															No Limit	
19	Benzene	MEC<C & B is ND															No Limit	
20	Bromoform	MEC<C & B is ND															No Limit	
21	Carbon Tetrachloride	MEC<C & B is ND															No Limit	
22	Chlorobenzene	MEC<C & B is ND															No Limit	
23	Chlorodibromomethane	MEC>=C	34	2.01	68.21043						1.55		3.11		34	68		
24	Chloroethane	No Criteria															No Limit	
25	2-Chloroethylvinyl ether	No Criteria															No Limit	
26	Chloroform	MEC<C & B is ND															No Limit	
27	Dichlorobromomethane	MEC<C & B is ND															No Limit	
28	1,1-Dichloroethane	No Criteria															No Limit	
29	1,2-Dichloroethane	MEC<C & B is ND															No Limit	
30	1,1-Dichloroethylene	MEC<C & B is ND															No Limit	
31	1,2-Dichloropropane	MEC<C & B is ND															No Limit	
32	1,3-Dichloropropylene	MEC<C & B is ND															No Limit	
33	Ethylbenzene	MEC<C & B is ND															No Limit	
34	Methyl Bromide	MEC<C & B is ND															No Limit	
35	Methyl Chloride	No Criteria															No Limit	
36	Methylene Chloride	MEC<C & B is ND															No Limit	
37	1,1,2,2-Tetrachloroethane	MEC<C & B is ND															No Limit	
38	Tetrachloroethylene	MEC<C & B is ND															No Limit	
39	Toluene	MEC<C & B is ND															No Limit	
40	1,2-Trans-Dichloroethylene	MEC<C & B is ND															No Limit	
41	1,1,1-Trichloroethane	No Criteria															No Limit	
42	1,1,2-Trichloroethane	MEC<C & B is ND															No Limit	
43	Trichloroethylene	MEC<C & B is ND															No Limit	
44	Vinyl Chloride	MEC<C & B is ND															No Limit	
45	2-Chlorophenol	MEC<C & B is ND															No Limit	
46	2,4-Dichlorophenol	MEC<C & B is ND															No Limit	
47	2,4-Dimethylphenol	MEC<C & B is ND															No Limit	
48	4,6-dinitro-o-resol (aka2-methyl-4,6-Dinitrophenol)	MEC<C & B is ND															No Limit	
49	2,4-Dinitrophenol	MEC<C & B is ND															No Limit	
50	2-Nitrophenol	No Criteria															No Limit	
51	4-Nitrophenol	No Criteria															No Limit	
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria															No Limit	
53	Pentachlorophenol	MEC<C & B<=C															No Limit	
54	Phenol	MEC<C & B is ND															No Limit	
55	2,4,6-Trichlorophenol	MEC<C & B is ND															No Limit	
56	Acenaphthene	MEC<C & B is ND															No Limit	
57	Acenaphthylene	No Criteria															No Limit	
58	Anthracene	MEC<C & B is ND															No Limit	
59	Benzidine	UD; effluent ND, MDL>C, and															No Limit	
60	Benzo(a)Anthracene	UD; effluent ND, MDL>C, and															No Limit	
61	Benzo(a)Pyrene	UD; effluent ND, MDL>C, and															No Limit	
62	Benzo(b)Fluoranthene	UD; effluent ND, MDL>C, and															No Limit	
63	Benzo(ghi)Perylene	No Criteria															No Limit	
64	Benzo(k)Fluoranthene	UD; effluent ND, MDL>C, and															No Limit	
65	Bis(2-Chloroethoxy)Methane	No Criteria															No Limit	
66	Bis(2-Chloroethyl)Ether	MEC<C & B is ND															No Limit	
67	Bis(2-Chloroisopropyl)Ether	MEC<C & B is ND															No Limit	
68	Bis(2-Ethylhexyl)Phthalate	MEC<C & B is ND															No Limit	
69	4-Bromophenyl Phenyl Ethe	No Criteria															No Limit	
70	Butylbenzyl Phthalate	MEC<C & B<=C															No Limit	
71	2-Chloronaphthalene	MEC<C & B is ND															No Limit	
72	4-Chlorophenyl Phenyl Ethe	No Criteria															No Limit	
73	Chrysene	UD; effluent ND, MDL>C, and															No Limit	
74	Dibenzo(a,h)Anthracene	UD; effluent ND, MDL>C, and															No Limit	
75	1,2-Dichlorobenzene	MEC<C & B is ND															No Limit	
76	1,3-Dichlorobenzene	MEC<C & B is ND															No Limit	
77	1,4-Dichlorobenzene	MEC<C & B is ND															No Limit	

					CTR Water Quality Criteria (ug/L)							REASONABLE POTENTIAL ANALYSIS (RPA)									
CTR#	Parameters	Units	CV	MEC	Freshwater		Saltwater		Human Health for consumption of:		Lowest C or WLAs	MEC >= Lowest C	Tier 1 - Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND Enter the min detection limit (MDL)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL>C?	If B>C, effluent limit required	Tier 3 - other info. ?	RPA Result - Need Limit?
					C acute = CMC tot	C chronic = CCC tot	C acute = CMC tot	C chronic = CCC tot	Water & organisms	Organisms only											
78	3,3 Dichlorobenzidine	ug/L								0.077	0.08			Y	Y	0.3		Y	No detected value of B, Step 7		No
79	Diethyl Phthalate	ug/L		0.15						120000	120000	No	No	Y	N		13		B<=C, Step 7		No
80	Dimethyl Phthalate	ug/L		0.18						2900000	2900000	No	No	Y	Y	0.18		N	No detected value of B, Step 7		No
81	Di-n-Butyl Phthalate	ug/L		0.39						12000	12000	No	No	Y	N		0.38		B<=C, Step 7		No
82	2,4-Dinitrotoluene	ug/L		0.18						9.10	9.10	No	No	Y	Y	0.18		N	No detected value of B, Step 7		No
83	2,6-Dinitrotoluene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.24		N	No Criteria	No Criteria	Uc
84	Di-n-Octyl Phthalate	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.19		N	No Criteria	No Criteria	Uc
85	1,2-Diphenylhydrazine	ug/L		0.25						0.54	0.540	No	No	Y	Y	0.25		N	No detected value of B, Step 7		No
86	Fluoranthene	ug/L		0.1						370	370	No	No	Y	Y	0.16		N	No detected value of B, Step 7		No
87	Fluorene	ug/L		0.28						14000	14000	No	No	Y	Y	0.28		N	No detected value of B, Step 7		No
88	Hexachlorobenzene	ug/L								0.00077	0.00077			Y	Y	0.15		Y	No detected value of B, Step 7		No
89	Hexachlorobutadiene	ug/L		0.41						50	50.00	No	No	Y	Y	0.41		N	No detected value of B, Step 7		No
90	Hexachlorocyclopentadiene	ug/L		1.5						17000	17000	No	No	Y	Y	1.5		N	No detected value of B, Step 7		No
91	Hexachloroethane	ug/L		0.36						8.9	8.9	No	No	Y	Y	0.36		N	No detected value of B, Step 7		No
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.049	0.0490			Y	Y	0.12		Y	No detected value of B, Step 7		No
93	Isophorone	ug/L		0.21						600	600.0	No	No	Y	Y	0.21		N	No detected value of B, Step 7		No
94	Naphthalene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.35		N	No Criteria	No Criteria	Uc
95	Nitrobenzene	ug/L		0.36						1900	1900	No	No	Y	Y	0.36		N	No detected value of B, Step 7		No
96	N-Nitrosodimethylamine	ug/L		0.14						8.10	8.10000	No	No	Y	Y	0.14		N	No detected value of B, Step 7		No
97	N-Nitrosodi-n-Propylamine	ug/L		0.26						1.40	1.400	No	No	Y	Y	0.26		N	No detected value of B, Step 7		No
98	N-Nitrosodiphenylamine	ug/L		0.19						16	16.0	No	No	Y	Y	0.19		N	No detected value of B, Step 7		No
99	Phenanthrene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.25		N	No Criteria	No Criteria	Uc
100	Pyrene	ug/L		0.16						11000	11000	No	No	Y	Y	0.16		N	No detected value of B, Step 7		No
101	1,2,4-Trichlorobenzene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.26		N	No Criteria	No Criteria	Uc
102	Aldrin	ug/L			3.00					0.00014	0.00014			Y	Y	0.0015		Y	No detected value of B, Step 7		No
103	alpha-BHC	ug/L		0.0018						0.013	0.0130	No	No	Y	Y	0.0018		N	No detected value of B, Step 7		No
104	beta-BHC	ug/L		0.0031						0.046	0.046	No	No	Y	Y	0.0031		N	No detected value of B, Step 7		No
105	gamma-BHC	ug/L		0.0021	0.95					0.063	0.063	No	No	Y	Y	0.0021		N	No detected value of B, Step 7		No
106	delta-BHC	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.0025		N	No Criteria	No Criteria	Uc
107	Chlordane	ug/L			2.40	0.00				0.00059	0.00059			Y	Y	0.08		Y	No detected value of B, Step 7		No
108	4,4'-DDT	ug/L			1.10	0.00				0.00059	0.00059			Y	Y	0.0031		Y	No detected value of B, Step 7		No
109	4,4'-DDE (linked to DDT)	ug/L								0.00059	0.00059			Y	Y	0.0025		Y	No detected value of B, Step 7		No
110	4,4'-DDD	ug/L								0.00084	0.00084			Y	Y	0.003		Y	No detected value of B, Step 7		No
111	Dieldrin	ug/L			0.24	0.06				0.00014	0.00014			Y	Y	0.0021		Y	No detected value of B, Step 7		No
112	alpha-Endosulfan	ug/L		0.0017	0.22	0.056				240	0.0560	No	No	Y	Y	0.0017		N	No detected value of B, Step 7		No
113	beta-Endolsulfan	ug/L		0.0019	0.22	0.056				240	0.0560	No	No	Y	Y	0.0019		N	No detected value of B, Step 7		No
114	Endosulfan Sulfate	ug/L		0.008						240	240	No	No	Y	Y	0.008		N	No detected value of B, Step 7		No
115	Endrin	ug/L		0.0028	0.086	0.036				0.81	0.0360	No	No	Y	Y	0.0028		N	No detected value of B, Step 7		No
116	Endrin Aldehyde	ug/L		0.003						0.81	0.81	No	No	Y	Y	0.003		N	No detected value of B, Step 7		No
117	Heptachlor	ug/L			0.52	0.0038				0.00021	0.00021			Y	Y	0.0017		Y	No detected value of B, Step 7		No
118	Heptachlor Epoxide	ug/L			0.52	0.0038				0.00011	0.00011			Y	Y	0.0019		Y	No detected value of B, Step 7		No
119-125	PCBs sum (2)	ug/L				0.01				0.00017	0.00017			Y	Y	0.04		Y	No detected value of B, Step 7		No
126	Toxaphene	ug/L			0.73	0.0002				0.00075	0.0002			Y	Y	0.12		Y	No detected value of B, Step 7		No

CTR#	Parameters	Reason	HUMAN HEALTH CALCULATIONS – Organisms only: AMEL hh = ECA = C hh O only	MDEL/AMEL multiplier	MDEL hh	AQUATIC LIFE CALCULATIONS – Saltwater / Freshwater / Basin Plan: ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aq life	MDEL multiplier 99	MDEL aq life	LIMITS: Lowest AMEL	Lowest MDEL	Recommendation	Comment
78	3,3 Dichlorobenzidine	UD; effluent ND, MDL>C, and															No Limit	
79	Diethyl Phthalate	MEC<C & B<=C															No Limit	
80	Dimethyl Phthalate	MEC<C & B is ND															No Limit	
81	Di-n-Butyl Phthalate	MEC<C & B<=C															No Limit	
82	2,4-Dinitrotoluene	MEC<C & B is ND															No Limit	
83	2,6-Dinitrotoluene	No Criteria															No Limit	
84	Di-n-Octyl Phthalate	No Criteria															No Limit	
85	1,2-Diphenylhydrazine	MEC<C & B is ND															No Limit	
86	Fluoranthene	MEC<C & B is ND															No Limit	
87	Fluorene	MEC<C & B is ND															No Limit	
88	Hexachlorobenzene	UD; effluent ND, MDL>C, and															No Limit	
89	Hexachlorobutadiene	MEC<C & B is ND															No Limit	
90	Hexachlorocyclopentadiene	MEC<C & B is ND															No Limit	
91	Hexachloroethane	MEC<C & B is ND															No Limit	
92	Indeno(1,2,3-cd)Pyrene	UD; effluent ND, MDL>C, and															No Limit	
93	Isophorone	MEC<C & B is ND															No Limit	
94	Naphthalene	No Criteria															No Limit	
95	Nitrobenzene	MEC<C & B is ND															No Limit	
96	N-Nitrosodimethylamine	MEC<C & B is ND															No Limit	
97	N-Nitrosodi-n-Propylamine	MEC<C & B is ND															No Limit	
98	N-Nitrosodiphenylamine	MEC<C & B is ND															No Limit	
99	Phenanthrene	No Criteria															No Limit	
100	Pyrene	MEC<C & B is ND															No Limit	
101	1,2,4-Trichlorobenzene	No Criteria															No Limit	
102	Aldrin	UD; effluent ND, MDL>C, and															No Limit	
103	alpha-BHC	MEC<C & B is ND															No Limit	
104	beta-BHC	MEC<C & B is ND															No Limit	
105	gamma-BHC	MEC<C & B is ND															No Limit	
106	delta-BHC	No Criteria															No Limit	
107	Chlordane	UD; effluent ND, MDL>C, and															No Limit	
108	4,4'-DDT	UD; effluent ND, MDL>C, and															No Limit	
109	4,4'-DDE (linked to DDT)	UD; effluent ND, MDL>C, and															No Limit	
110	4,4'-DDD	UD; effluent ND, MDL>C, and															No Limit	
111	Dieldrin	UD; effluent ND, MDL>C, and															No Limit	
112	alpha-Endosulfan	MEC<C & B is ND															No Limit	
113	beta-Endolsulfan	MEC<C & B is ND															No Limit	
114	Endosulfan Sulfate	MEC<C & B is ND															No Limit	
115	Endrin	MEC<C & B is ND															No Limit	
116	Endrin Aldehyde	MEC<C & B is ND															No Limit	
117	Heptachlor	UD; effluent ND, MDL>C, and															No Limit	
118	Heptachlor Epoxide	UD; effluent ND, MDL>C, and															No Limit	
119-125	PCBs sum (2)	UD; effluent ND, MDL>C, and															No Limit	
126	Toxaphene	UD; effluent ND, MDL>C, and															No Limit	

Notes:
Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data