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 (H_o) 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 Limitation (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. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (U.S. EPA 2002, EPA-821-R-02-013) (see Table E-4, below), then the Permittee must re-sample and re-test within 14 days.

Table E-4. USEPA Test Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Method 1000.0 (Table 1 of the test method, above).	80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg. (required)
Daphnid, *Ceriodaphnia dubia*, Survival and Reproduction Test Method 1002.0 (Table 3 of the test method, above).	80% or greater survival of all control organisms and an average of 15 or more young per surviving female in the control solutions. 60% of surviving control females must produce three broods. (required)
Green Alga, *Selenastrum capricornutum*, Growth Toxicity Test Method 1003.0 (Table 3 of the test method, above).	Mean cell density of at least 1 X 10^6 cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

d. 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.

e. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC25 [27].

f. The Permittee shall perform toxicity tests on final effluent samples. Chlorine in the final effluent sample may be removed prior to conducting toxicity tests in order to simulate the dechlorination process at the facility. However,ammonia

[27] 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.

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 TRE Work Plan**

The Permittee shall prepare and submit a copy of the Permittee's initial investigation TRE work plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Permittee shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Permittee intends to follow if toxicity is detected. 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).

7. **Accelerated Monitoring Schedule for Median Monthly Summary Result: "Fail" (or Maximum Daily Single Result: "Fail and % Effect ≥50").**

The summary result shall be used when there is discharge more than one day in a calendar month. The single result shall be used when there is discharge of only one day in a calendar month.

Once the Permittee becomes aware of this result, the Permittee shall implement an accelerated monitoring schedule within 48 hours for the *Ceriodaphnia dubia* test, and within 5 calendar days for both the *Pimephales promelas* and *Selenastrum capricornutum* tests. However, if the sample is contracted out to a commercial laboratory, the Permittee shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Permittee becoming aware of the summary result. The accelerated monitoring schedule shall consist of four, five-concentration toxicity tests (including the discharge IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass", the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail", the Permittee shall immediately implement the Toxicity Reduction Evaluation (TRE) Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

8. Toxicity Reduction Evaluation (TRE) Process

During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

a. **Preparation and Implementation of Detailed TRE Work Plan.** The Permittee shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 15 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:

   i. Further actions by the Permittee to investigate, identify, and correct the causes of toxicity.

   ii. Actions the Permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

   iii. A schedule for these actions, progress reports, and the final report.

b. **TIE Implementation.** The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA 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.

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 Permittee 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 Permittee shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE process is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE is begun.

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.

f. The Board may consider results of any TIE/TRE studies in an enforcement action.

9. 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 measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

c. TRE/TIE results. The Executive Officer 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.

e. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request of Regional Water Board staff.

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 Permittee 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 not other toxicants before the Executive Officer would allow for control of pH in the test.

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

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

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

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

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

C. Chlorine Removal

Except with prior approval from the Executive Office of the Regional Water Board, chlorine shall not be removed from bioassay samples. However, chlorine may be removed from the Pomona WRP effluent bioassay samples in the laboratory because

often the recycled water demand is high and there is no effluent water available for sampling over the weir after the dechlorination process.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001D, RSW-002D, and RSW-003D

1. The Permittee shall monitor the South Fork San Jose Creek at RSW-001D (12 feet downstream of Discharge Serial 001); the main branch of San Jose Creek at RSW-002D (downstream of RSW-001D); and, RSW-003D (200 yards downstream from Third Avenue in the City of Industry), as follows (only if there is a discharge from Discharge Serial No. 001):

Table E-5a. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total flow[28]	cfs	calculation	monthly	--
Turbidity	NTU	grab	monthly	[29]
Temperature	°F	grab	monthly	[29]
pH[31]	pH units	grab	monthly	[29]
E.Coli	MPN/100ml or CFU/100ml	grab	monthly	[29]
Total residual chlorine	mg/L	grab	monthly	[29]
Settleable Solids	mL/L	grab	monthly	[29]
Total Suspended Solids	mg/L	grab	monthly	[29]
BOD_5 20°C	mg/L	grab	monthly	[29]
Oil and grease	mg/L	grab	quarterly	[29]
Dissolved oxygen[31]	mg/L	grab	monthly	[29]
Total Hardness ($CaCO_3$)	mg/L	grab	monthly	[29]
Conductivity	µmho/cm	grab	monthly	[29]
Total Dissolved Solids	mg/L	grab	monthly	[29]
Sulfate	mg/L	grab	monthly	[29]
Chloride	mg/L	grab	monthly	[29]
Boron	mg/L	grab	monthly	[29]
Chronic toxicity[30]	Pass or Fail, %	grab	quarterly	[29]

[28] When conditions at receiving water stations RSW-001, RSW-002, and RSW-003 prevent accurate measurement of flow, the flow may be qualitatively estimated and reported.

[29] Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

[30] The Permittee shall conduct Whole Effluent Toxicity monitoring as outlined in section V. Please refer to section V.A.7 of this MRP for the accelerated monitoring schedule. The median monthly summary result

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
	Effect (TST)			
Nitrate nitrogen	mg/L	grab	monthly	[29]
Nitrite nitrogen	mg/L	grab	monthly	[29]
Ammonia nitrogen	mg/L	grab	monthly	[29]
Organic nitrogen	mg/L	grab	monthly	[29]
Total kjeldahl nitrogen (TKN)	mg/L	grab	monthly	[29]
Total nitrogen	mg/L	grab	monthly	[29]
Total phosphorus	mg/L	grab	monthly	[29]
Orthophosphate-p	mg/L	grab	monthly	[29]
Surfactants (MBAS)	mg/L	grab	quarterly	[29]
Surfactants (CTAS)	mg/L	grab	quarterly	[29]
Arsenic	µg/L	grab	semiannually	[29]
Copper	µg/L	grab	semiannually	[29]
Mercury	µg/L	grab	semiannually	[29]
Nickel	µg/L	grab	quarterly	[29]
Cyanide	µg/L	grab	quarterly	[29]
Bis(2-ethyhexyl)Phthalate	µg/L	grab	monthly	[29]
Iron	µg/L	grab	quarterly	[29]
Selenium	µg/L	grab	monthly	[29]
Chlorpyrifos	µg/L	grab	annually	[29]
Diazinon	µg/L	grab	annually	[29]
Chlordane	µg/L	grab	semiannually	[29]
PCBs as aroclors [31]	µg/L	grab	annually	[29]
PCBs as congeners[32]	µg/L	grab	annually	[29]

is a threshold value for a determination of meeting the narrative receiving water objective and shall be reported as "Pass" or "Fail". The maximum daily single result is a threshold value for a determination of meeting the narrative receiving water objective and shall be reported as "Pass or Fail" with a "% Effect". Up to three independent toxicity tests are required when one toxicity test results in "Fail".

If the chronic toxicity median monthly threshold at the immediate downstream receiving water location is not met and the toxicity cannot be attributed to upstream toxicity, as assessed by the Permittee, then the Permittee shall initiate accelerated monitoring.

If the chronic toxicity median monthly threshold of the receiving water at both upstream and downstream stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented.

31 Receiving water samples will be analyzed for PCBs only at station RSW-002D, not at station RSW-001D or RSW-003D. PCBs as aroclors is the sum of PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, and PCB 1260 when monitoring using USEPA method 608.

32 Receiving water samples will be analyzed for PCBs only at station RSW-002D, not at station RSW-001D or RSW-003D. PCBs mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105,110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified. PCBs as congeners shall be analyzed using method EPA 1668c for three

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Toxaphene	µg/L	grab	semiannually	[29]
Antimony	µg/L	grab	semiannually	[29]
Beryllium	µg/L	grab	semiannually	[29]
Cadmium	µg/L	grab	semiannually	[29]
Chromium III	µg/L	calculation	semiannually	[29]
Chromium VI	µg/L	grab	semiannually	[29]
Lead	µg/L	grab	monthly	[29]
Silver	µg/L	grab	quarterly	[29]
Thallium	µg/L	grab	semiannually	[29]
Zinc	µg/L	grab	quarterly	[29]
Fluoride	mg/L	grab	semiannually	[29]
Barium	µg/L	grab	semiannually	[29]
Methoxychlor	µg/L	grab	semiannually	[29]
2,3,7,8-TCDD[33]	pg/L	grab	semiannually	[29]
1,4-Dioxane	µg/L	grab	annually	[34]
Perchlorate	µg/L	grab	annually	[34]
1,2,3-Trichloropropane	µg/L	grab	annually	[34]
Methyl tert-butyl-ether (MTBE)	µg/L	grab	Annually	[34]
Remaining EPA priority pollutants[35] excluding asbestos	µg/L	grab	semiannually	[29]

years and may be discontinued for the remaining life of this Order if none of the PCB congeners are detected using method EPA 1668c.

USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR 136, Permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as aroclor results, that will be used for assessing compliance with WQBELs, and (2) USEPA proposed method 1668c, with lower detection levels, for monitoring data, reported as 41 congener results, that will be used for informational purposes.

33 In accordance with the SIP, the Discharger shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Stations RSW-001D. The Discharger shall use the appropriate TEF to determine TEQ. Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding TEF_i., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

34 Emerging chemicals include 1,4-dioxane (USEPA 8270M test method), perchlorate (USEPA 314 test method, or USEPA method 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA 504.1, 8260B test method, or USEPA 524.2 in SIM mode), and methyl tert-butyl ether (USEPA 8260B test method or USEPA method 624 if a detection level of less than 5 µg/L is achieved, and if the Permittee received ELAP certification to run USEPA method 624).

35 Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

2. Receiving water samples shall not be taken during or within 48-hours following the flow of rainwater runoff into the South Fork San Jose Creek. Sampling may be rescheduled within the same calendar month, at receiving water stations, if weather and/or flow conditions would endanger personnel collecting receiving water samples. The monthly monitoring report shall note such occasions.

B. TMDL Stream Flow and Rainfall Monitoring

1. The Discharger shall report the maximum daily flow at the San Gabriel River at United States Geological Survey (USGS) station 11087020 (RSW-004D). This information is necessary to determine the wet-weather condition of the river as defined by the *San Gabriel River Metals TMDL*. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

Table E-5b TMDL Stream Flow and Rainfall Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Maximum Daily Flow	cubic feet per second (cfs)	recorder	daily	N/A

IX. OTHER MONITORING REQUIREMENTS

A. Watershed Monitoring

1. The goals of the Watershed-wide Monitoring Program for the San Gabriel River Watershed are to:
   - Determine compliance with receiving water limits;
   - Monitor trends in surface water quality;
   - Ensure protection of beneficial uses;
   - Provide data for modeling contaminants of concern;
   - Characterize water quality including seasonal variation of surface waters within the watershed;
   - Assess the health of the biological community; and
   - Determine mixing dynamics of effluent and receiving waters in the estuary.

2. To achieve the goals of the Watershed-wide Monitoring Program, the Discharger shall undertake the responsibilities delineated under an approved watershed-wide monitoring plan in the implementation of the Watershed-wide Monitoring Program for the San Gabriel River, which was approved by the Regional Water Board on September 25, 2006.

3. In coordination with the Los Angeles County Public Works and other interested stakeholders in the San Gabriel River Watershed, the Discharger shall conduct instream bioassessment monitoring once a year, during the spring/summer period (unless an alternate sampling period is approved by the Executive Officer) and include an analysis of the community structure of the instream macroinvertebrate assemblages, the community structure of the instream algal assemblages (benthic diatoms and soft-bodied algae), chlorophyll a and biomass for instream algae, and physical habitat assessment at the random monitoring stations designated by the San Gabriel River Watershed Monitoring Program. Over time, bioassessment

monitoring will provide a measure of the physical condition of the waterbody and the integrity of its biological communities.

a. The bioassessment program shall include an analysis of the community structure of the instream macroinvertebrate, algal assemblages, algal biomass, and physical habitat assessment at the monitoring stations RSW-001D, RSW-002D, and RSW-003D.

   This program shall be implemented by appropriately trained staff. Alternatively, a professional subcontractor qualified to conduct bioassessments may be selected to perform the bioassessment work for the Discharger. Analyses of the results of the bioassessment monitoring program, along with photographs of the monitoring site locations taken during sample collection, shall be submitted in the corresponding annual report. If another stakeholder, or interested party in the watershed subcontracts a qualified professional to conduct bioassessment monitoring during the same season and at the same location as specified in the MRP, then the Discharger may, in lieu of duplicative sampling, submit the data, a report interpreting the data, photographs of the site, and related QA/QC documentation in the corresponding annual report.

b. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Water Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well as, related QA/QC procedures. The SOP must also include specific information about each bioassessment program including: assessment program description, its organization and the responsibilities of all its personnel; assessment project description and objectives; qualifications of all personnel; and the type of training each member has received.

c. Field sampling must conform to the SOP established for the California Stream Bioassessment Procedure (CSBP) or more recently established sampling protocols, such as used by the Surface Water Ambient Monitoring Program (SWAMP). Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and gross errors. Field inspections shall be planned with random visits and shall be performed by the Discharger or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.

d. A taxonomic identification laboratory shall process the biological samples that usually consist of subsampling organisms, enumerating and identifying taxonomic groups and entering the information into an electronic format. The Regional Water Board may require QA/QC documents from the taxonomic laboratories and examine their records regularly. Intra-laboratory QA/QC for subsampling, taxonomic validation and corrective actions shall be conducted and documented. Biological laboratories shall also maintain reference collections, vouchered specimens (the Discharger may request the return of their sample voucher collections) and remnant collections. The laboratory should participate in an (external) laboratory taxonomic validation program at a recommended level of 10% or 20%. External QA/QC may be arranged through the California

Department of Fish and Game's Aquatic Bioassessment Laboratory located in Rancho Cordova, California.

4. The Executive Officer of the Regional Water Board may modify Monitoring and Reporting Program to accommodate the watershed-wide monitoring.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Permittee 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 the 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 discharge requirements, as well as all excursions of effluent limitations.
4. The Permittee shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

B. Self-Monitoring Reports (SMRs)

1. The Permittee 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 website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Permittee shall submit monthly, quarterly, semiannual, and annual 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 Permittee 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-6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	By the 15th day of the third month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	June 15 September 15 December 15 March 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	September 15 March 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 15

4. Reporting Protocols. The Permittee shall report with each sample result the applicable RL and the current MDL, as determined by the procedure in 40 CFR part 136.

   The Permittee 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. Permittees 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 Permittee 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 of this Order. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

6. Multiple Sample Data. When determining compliance with an average monthly effluent limitation (AMEL), average weekly effluent limitation (AWEL), or maximum daily effluent

limitation (MDEL) for priority pollutants and more than one sample result is available, the Permittee shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Permittee 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 Permittee shall submit SMRs in accordance with the following requirements:

a. The Permittee 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 Permittee 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 Permittee shall electronically submit the data in a tabular format as an attachment.

b. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify instances of non-compliance or exceedances of effluent limitations 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. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D). Paper SMRs should be converted to a Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to losangeles@waterboards.ca.gov. Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed below: (Reference the reports to Compliance File No. 0755 to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA90013
Attention: Information Technology Unit.

However, Permittees who have been certified to only submit electronic SMRs to CIWQS should continue doing so, as previously required.

C. Discharge Monitoring Reports (DMRs)

1. As described above, at any time during the term of this permit, the State Water Board or Regional Water Board may notify the Permittee to electronically submit DMRs. On October 1, 2014, notification was given specifically for the electronic submittal of DMRs by the Permittee. The Permittee shall submit DMRs electronically via CIWQS and will discontinue submitting paper DMRs.

D. Other Reports

1. The Permittee shall report the results of any special studies, chronic toxicity testing, TRE/TIE, Pollutant Minimization Program (PMP), and Pollution Prevention Plan required by Special Provisions – section VI.C. The Permittee shall submit reports in compliance with SMR reporting requirements described in subsection X.B above.

2. **Annual Summary Report**

   By April 15 of each year, the Permittee shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water monitoring data. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Permittee shall submit annual report to the Regional Water Board in accordance with the requirements described in subsection X.B.7 above.

   Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

   a. A list of the pollutant(s) that triggered reasonable potential;

   b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;

   c. The concentration of the pollutant(s);

   d. The test method used to analyze the sample; and,

   e. The date and time of sample collection.

3. The Permittee shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

4. The Regional Water Board requires the Permittee to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

   b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

   c. Describe facilities and procedures needed for effective preventive and contingency plans.

   d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

ATTACHMENT F – FACT SHEET

Contents

Tables

ATTACHMENT F – FACT SHEET

As described in section IIB, the 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 Permittees 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 Permittee. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Permittee.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	4B190107019
Discharger/ Permittee	Joint Outfall System[1]
Name of Facility	Pomona Water Reclamation Plant and its associated wastewater collection system and outfall
Facility Address	295 Humane Way Pomona, CA 91766 Los Angeles County
Facility Contact, Title and Phone	Ann Heil, Supervising Engineer, (562) 908-4288 X2803
Authorized Person to Sign and Submit Reports	Ann Heil, Supervising Engineer
Mailing Address	1955 Workman Mill Road, Whittier, CA 90601
Billing Address	Same as above
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Y
Recycling Requirements	Producer/User
Facility Permitted Flow	15.0 million gallons per day (mgd)
Facility Design Flow	15.0 mgd
Watershed	San Gabriel River Watershed
Receiving Water	South Fork San Jose Creek
Receiving Water Type	Inland surface water

A. The Joint Outfall System (JOS, Permittee or Discharger), formerly referred to as Los Angeles County Sanitation District of Los Angeles County, owns and operates a publicly-owned treatment works (POTW) comprised of the Pomona Water Reclamation Plant (Pomona WRP or Facility) and its associated wastewater collection system and outfalls.

[1] Ownership and operation of the Joint Outfall System is proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995. These parties include County Sanitation Districts of Los Angeles County Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 28, 29, and 34, and South Bay Cities Sanitation District of Los Angeles County.

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 Permittee herein.

B. The Facility discharges wastewater to South Fork San Jose Creek, a water of the United States. The Permittee was previously regulated by Order No. R4-2009-0076 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053619 adopted on June 4, 2009, and expired on May 10, 2014. The terms and conditions of the current NPDES order have been automatically continued and remain in effect until new WDRs and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on November 5, 2013. Supplemental information was requested on December 5, 2013, and received on January 2 and 3, 2014. A site visit was conducted in July 2014, to observe operations and collect additional data to develop permit limitations and conditions. The application was deemed complete on March 27, 2014, so the NPDES permit was administratively extended.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

1. The Discharger owns and operates the Pomona WRP, a tertiary wastewater treatment plant located at 295 Humane Way, Pomona, California. Attachment B shows the location of the plant. The Pomona WRP currently receives wastewater from the cities of Claremont, La Verne, Pomona, and portions of unincorporated of Los Angeles County. The wastewater is a mixture of domestic and industrial wastewater that is pre-treated pursuant to 40 C.F.R. Part 403. The Pomona WRP has a design capacity of 15.0 million gallons per day (MGD) and serves an estimated population of 149,058.

   The Pomona WRP is part of an integrated network of facilities, known as the Joint Outfall System (JOS). The JOS incorporates the Pomona WRP and six other wastewater treatment plants, which are connected by more than 1,200 miles of interceptors and trunk sewers. The upstream treatment plants (Whittier Narrows, Pomona, La Cañada, Long Beach, Los Coyotes, and San Jose Creek) are connected to the Joint Water Pollution Control Plant (JWPCP) located in Carson. This system allows for the diversion of influent flows into or around each upstream plant if so desired.

   The Districts have undertaken a full evaluation of local limits for the JOS, which is an interconnected system consisting of the Long Beach, Los Coyotes, Pomona, San Jose Creek and Whittier Narrows WRPs, as well as JWPCP, and La Canada WRP (non-industrial). Due to the interconnectedness of this system, it is appropriate to formally evaluate local limits for all treatment plants on the system at one time so that conditions throughout the system can be considered. The Districts have reviewed the discharge limitations in the NPDES permits issued to these facilities and have found that changes to existing local limits are not necessary to meet the limitations. The most recent local limits evaluation was submitted on August 22, 2012 finding that the existing limits were fully protective of the JOS system. However, a re-evaluation will be required following the renewal of the NPDES permit issued to the Joint Water Pollution Control Plant (JWPCP).

2. Treatment at the Pomona WRP consists of primary sedimentation, activated sludge treatment, secondary clarification, filtration, chlorination and dechlorination. Although the plant is configured with a backwash equalization system, it is rarely used. Treated wastewater discharged to the South Fork San Jose Creek is dechlorinated.

3. Sodium hypochlorite is added to the nitrified filtered secondary treated effluent to form chloramines by reacting with ammonia that is either already present or added to the effluent. The chloramines inactivate bacteria, pathogens and viruses, and minimize the formation of total trihalomethanes (TTHMs).. Prior to discharge, sodium bisulfite is added to the treated effluent to remove residual chlorine.

4. No facilities are provided for solids processing at the plant. Sewage solids separated from the wastewater are returned to the trunk sewer for conveyance to JWPCP for treatment and disposal occurs, under Order No. R4-2011-0151 (NPDES No. CA0053813. Attachment C is a schematic of the Pomona WRP wastewater flow.

5. The biological nutrient removal system at the Pomona WRP with nitrogen de-nitrification process (NDN) complies with the ammonia Basin Plan objectives. The system was completed and has been in operation since September 2003.

B. Discharge Points and Receiving Waters

The Pomona WRP discharges tertiary-treated municipal and industrial wastewater to the South Fork San Jose Creek, tributary to the San Gabriel River, waters of the United States, above the Estuary. Treated effluent is discharged from the plant to surface waters at the following discharge point:

Discharge Point 001: Discharge to South Fork San Jose Creek via a point located at the approximate coordinates: Latitude 34° 03' 19", Longitude 117° 47' 44"). The treated effluent generally flows down the river to the San Gabriel River Spreading Grounds.

During dry weather (May 1 – October 31), the primary sources of water flow in San Gabriel River, downstream of the discharge point is the Pomona WRP effluent and other NPDES-permitted discharges, including urban runoff conveyed through the municipal separate storm sewer systems (MS4). Storm water and dry weather urban runoff from MS4 are regulated under an NPDES permit, *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* (LA Municipal Permit), NPDES Permit No. CAS004001.

The Los Angeles County Flood Control District channelized portions of the San Gabriel River to convey and control floodwater, and to prevent damage to homes located adjacent to the river. Although this is not the main purpose, the San Gabriel River conveys treated wastewater along with floodwater, and urban runoff. The San Gabriel River is unlined near the points of discharge. Groundwater recharge occurs both incidentally and through separate water reclamation requirements (WRR) for groundwater recharge, in these unlined areas of the San Gabriel River where the underlying sediments are highly transmissive to water as well as pollutants. The Water Replenishment District recharges groundwater through the Rio Hondo and San Gabriel Spreading Grounds, located in the Montebello Forebay, with water purchased from JOS's Whittier Narrows, Pomona, and San Jose Creek WRPs, under WRR Order No. 91-100, adopted by the Board on September 9, 1991. This order was amended on April 10, 2014, by Order No. R4-2009-0048-A-01.

Notwithstanding that segments located further downstream of the discharge are concrete-lined, the watershed supports a diversity of wildlife, particularly an abundance of avian

species such as the *Least Bell's Vireo, Tricolored Blackbird, and California Gnatcatcher.* Aquatic life, such as fish, invertebrates, and algae exist 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 previous Order, as reported by the Permittee in the ROWD, are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation (Order No. R4-2009-0076)			Monitoring Data		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
$BOD_5 20^{\circ}C$	mg/L	20	30	45	<3	--	11
Total Suspended Solids (TSS)	mg/L	15	40	45	<2.5	--	3.9
Oil and Grease	mg/L	10	--	15	<4.3	--	<5
Settleable Solids	ml/L	0.1	--	0.3	<0.1	--	<0.1
Residual Chlorine	mg/L	--	--	0.1	<0.05	--	1.2
Total Dissolved Solids	mg/L	750	--	--	552	--	618
MBAS	mg/L	0.5	--	--	<0.1	--	0.1
Chloride	mg/L	180			129	--	153
Sulfate	mg/L	350	--	--	65	--	91.7
Boron	mg/L	1	--	--	0.2	--	0.3
Fluoride	mg/L	1.4	--	--	0.3	--	0.372
Organic nitrogen (as N)	mg/L	--	--	--	1	--	2.68
Nitrate + Nitrite as N	mg/L	8	--	--	6.9	--	9.02
Ammonia-N all yr long	mg/L	2.0	--	3.5	1.4	--	3.14
Ammonia ELS Present	mg/L	2.6	--	4.6	1.4	--	3.14
Amminia ELS Absent	mg/L	3.6	--	6.3	1.4	--	3.14
Total kjeldahl nitrogen (TKN)	mg/L	--	--	--	2.5	--	4.37
Turbidity	NTU	2	--	5	0.69	--	2.2
Total hardness	mg/L	--	--	--	208	--	288
Antimony	µg/L	6	--	--	0.4 DNQ	--	0.65
Arsenic	µg/L	--	--	--	0.98 DNQ	--	1.69
Beryllium	µg/L	--	--	--	<0.25	--	<0.25
Cadmium	µg/L	--	--	--	0.25 DNQ	--	0.5
Chromium III	µg/L	--	--	--	0.95	--	1.57
Chromium VI	µg/L	--	--	--	0.55	--	E 0.7
Copper	µg/L	--	--	--	6	--	8.12
Lead	µg/L	--	--	166	0.4	--	0.58
Mercury	µg/L	--	--	--	0.002	--	0.0035
Nickel	µg/L	--	--	--	1.8	--	3.03
Selenium	µg/L	4.7	--	6.2	0.4 DNQ	--	0.61 DNQ
Silver	µg/L	--	--	--	0.04 DNQ	--	0.15 DNQ

Parameter	Units	Effluent Limitation (Order No. R4-2009-0076)			Monitoring Data		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Thallium	µg/L	--	--	--	<0.25	--	<0.25
Zinc	µg/L	--	--	--	61	--	74.3
Cyanide	µg/L	--	--	--	0.002 DNQ	--	0.0049 DNQ
Asbestos	µg/L	--	--	--	--	--	--
2,3,7,8-TCDD (Dioxin)	pg/L	--	--	--	<11	--	<12
Acrolein	µg/L	--	--	--	<2	--	0.67 DNQ
Acrylonitrile	µg/L	--	--	--	<2	--	<2
Benzene	µg/L	--	--	--	<0.2	--	<0.5
Bromoform	µg/L	--	--	--	<0.5	--	107
Carbon Tetrachloride	µg/L	--	--	--	<0.5	--	<0.5
Chlorobenzene	µg/L	--	--	--	<0.5	--	<0.5
Dibromochloromethane	µg/L	--	--	--	0.8	--	32.9
Chloroethane	µg/L	--	--	--	<0.5	--	<0.5
2-chloroethyl vinyl ether	µg/L	--	--	--	<0.5	--	<0.5
Chloroform	µg/L	--	--	--	10	--	29.6
Dichlorobromomethane	µg/L	--	--	--	6	--	13.6
1,1-dichloroethane	µg/L	--	--	--	<0.5	--	<0.5
1,2-dichloroethane	µg/L	--	--	--	<0.5	--	<0.5
1,1-dichloroethylene	µg/L	--	--	--	<0.5	--	<0.5
1,2-dichloropropane	µg/L	--	--	--	<0.5	--	<0.5
1,3-dichloropropylene	µg/L	--	--	--	<0.5	--	<0.5
Ethylbenzene	µg/L	--	--	--	<0.5	--	<0.5
Methyl bromide	µg/L	--	--	--	<0.5	--	<0.5
Methyl chloride	µg/L	--	--	--	<0.5	--	0.16 DNQ
Methylene chloride	µg/L	--	--	--	<0.5	--	0.21 DNQ
1,1,2,2-tetrachloroethane	µg/L	--	--	--	<0.5	--	<0.5
Tetrachloroethylene	µg/L	--	--	--	<0.5	--	<0.5
Toluene	µg/L	--	--	--	<0.5	--	0.11 DNQ
Trans 1,2-Dichloroethylene	µg/L	--	--	--	<0.5	--	<0.5
1,1,1-Trichloroethane	µg/L	--	--	--	<0.5	--	<0.5
1,1,2-Trichloroethane	µg/L	--	--	--	<0.5	--	<0.5
Trichloroethylene	µg/L	--	--	--	<0.5	--	<0.5
Vinyl Chloride	µg/L	--	--	--	<0.5	--	<0.5
2-chlorophenol	µg/L	--	--	--	<5	--	<5
2,4-dichlorophenol	µg/L	--	--	--	<5	--	<5
2,4-dimethylphenol	µg/L	--	--	--	<2	--	<2
4,6-dinitro-o-resol(aka 2-methyl-4,6-Dinitrophenol)	µg/L	--	--	--	<5	--	<5

Parameter	Units	Effluent Limitation (Order No. R4-2009-0076)			Monitoring Data		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
2,4-dinitrophenol	µg/L	--	--	--	<5	--	<5
2-nitrophenol	µg/L	--	--	--	<10	--	<10
4-nitrophenol	µg/L	--	--	--	<10	--	<10
3-Methyl-4-Chlorophenol (aka 4-chloro-m-cresol)	µg/L	--	--	--	<1	--	<1
Pentachlorophenol	µg/L	--	--	--	<1	--	<1
Phenol	µg/L	--	--	--	0.3 DNQ	--	2.6
2,4,6-trichlorophenol	µg/L	--	--	--	0.3 DNQ	--	0.72 DNQ
Acenaphthene	µg/L	--	--	--	<1	--	<1
Acenaphthylene	µg/L	--	--	--	<10	--	<10
Anthracene	µg/L	--	--	--	<10	--	<10
Benzidine	µg/L	--	--	--	<5	--	<5
Benzo(a)Anthracene	µg/L	--	--	--	<5	--	<5
Benzo(a)Pyrene	µg/L	--	--	--	<0.02	--	<0.02
Benzo(b)Fluoranthene	µg/L	--	--	--	<0.02	--	<0.025
Benzo(ghi)Perylene	µg/L	--	--	--	<5	--	<5
Benzo(k)Fluoranthene	µg/L	--	--	--	<0.02	--	0.032
Bis(2-Chloroethoxy) methane	µg/L	--	--	--	<5	--	<5
Bis(2-Chloroethyl)Ether	µg/L	--	--	--	<1	--	<1
Bis(2-Chloroisopropyl) Ether	µg/L	--	--	--	<2	--	<2
Bis(2-Ethylhexyl) Phthalate	µg/L	4	--	--	<2	--	3
4-Bromophenyl Phenyl Ether	µg/L	--	--	--	<5	--	<5
Butylbenzyl Phthalate	µg/L	--	--	--	<10	--	<10
2-Chloronaphthalene	µg/L	--	--	--	<10	--	<10
4-Chlorophenyl Phenyl Ether	µg/L	--	--	--	<5	--	<5
Chrysene	µg/L	--	--	--	<0.02	--	<0.02
Dibenzo(a,h) Anthracene	µg/L	--	--	--	<0.02	--	0.014 DNQ
1,2-Dichlorobenzene	µg/L	--	--	--	<0.5	--	<0.5
1,3-Dichlorobenzene	µg/L	--	--	--	<0.5	--	<0.5
1,4-Dichlorobenzene	µg/L	--	--	--	<0.5	--	0.12 DNQ
3,3'-Dichlorobenzidine	µg/L	--	--	--	<5	--	<5
Diethyl Phthalate	µg/L	--	--	--	<2	--	0.37 DNQ
Dimethyl Phthalate	µg/L	--	--	--	<2	--	<2
Di-n-Butyl Phthalate	µg/L	--	--	--	<10	--	0.18 DNQ
2-4-Dinitrotoluene	µg/L	--	--	--	<5	--	<5

Parameter	Units	Effluent Limitation (Order No. R4-2009-0076)			Monitoring Data		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
2-6-Dinitrotoluene	µg/L	--	--	--	<5	--	<5
Di-n-Octyl Phthalate	µg/L	--	--	--	<10	--	<10
1,2-Diphenylhydrazine	µg/L	--	--	--	<1	--	<1
Fluoranthene	µg/L	--	--	--	<1	--	<1
Fluorene	µg/L	--	--	--	<10	--	<10
Hexachlorobenzene	µg/L	--	--	--	<1	--	<1
Hexachlorobutadiene	µg/L	--	--	--	<1	--	<1
Hexachlorocyclopentadiene	µg/L	--	--	--	<5	--	<5
Hexachloroethane	µg/L	--	--	--	<1	--	<1
Indeno(1,2,3-cd)Pyrene	µg/L	--	--	--	<0.02	--	0.021
Isophorone	µg/L	--	--	--	<1	--	<1
Naphthalene	µg/L	--	--	--	<1	--	<1
Nitrobenzene	µg/L	--	--	--	<1	--	<1
N-Nitrosodimethylamine	µg/L	--	--	--	0.08	--	0.430
N-Nitrosodi-n-Propylamine	µg/L	--	--	--	<5	--	<5
N-Nitrosodiphenylamine	µg/L	--	--	--	<1	--	<1
Phenanthrene	µg/L	--	--	--	<5	--	<5
Pyrene	µg/L	--	--	--	<10	--	<10
1,2,4-Trichlorobenzene	µg/L	--	--	--	<5	--	<5
Aldrin	µg/L	--	--	--	<0.005	--	<0.01
Alpha-BHC	µg/L	--	--	--	<0.01	--	<0.01
Beta-BHC	µg/L	--	--	--	<0.01	--	<0.01
Gamma-BHC (aka Lindane)	µg/L	--	--	--	<0.01	--	0.01
delta-BHC	µg/L	--	--	--	<0.005	--	<0.01
Chlordane	µg/L	--	--	--		--	
4,4'-DDT	µg/L	--	--	--	<0.01	--	<0.01
4,4'-DDE	µg/L	--	--	--	<0.01	--	<0.01
4,4'-DDD	µg/L	--	--	--	<0.01	--	<0.01
Dieldrin	µg/L	--	--	--	<0.01	--	<0.01
Alpha-Endosulfan	µg/L	--	--	--	<0.01	--	<0.01
Beta-Endosulfan	µg/L	--	--	--	<0.01	--	<0.01
Gamma-BHC (lindane)	µg/L	--	--	--	<0.01	--	<0.01
Delta-Endosulfan	µg/L	--	--	--	<0.01	--	<0.01
Endosulfan Sulfate	µg/L	--	--	--	<0.01	--	<0.01
Endrin	µg/L	--	--	--	<0.01	--	<0.01
Endrin Aldehyde	µg/L	--	--	--	<0.01	--	<0.01
Heptachlor	µg/L	--	--	--	<0.01	--	<0.01
Heptachlor Epoxide	µg/L	--	--	--	<0.01	--	<0.01

Parameter	Units	Effluent Limitation (Order No. R4-2009-0076)			Monitoring Data		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
PCB 1016	µg/L	--	--	--	<0.1	--	<0.1
PCB 1221	µg/L	--	--	--	<0.5	--	<0.5
PCB 1232	µg/L	--	--	--	<0.3	--	<0.3
PCB 1242	µg/L	--	--	--	<0.1	--	<0.1
PCB 1248	µg/L	--	--	--	<0.1	--	<0.1
PCB 1254	µg/L	--	--	--	<0.05	--	<0.05
PCB 1260	µg/L	--	--	--	<0.1	--	<0.1
Toxaphene	µg/L	-	--	--	<0.5	--	<0.5
Iron	µg/L	--	--	--	40	--	160
Total trihalomethanes	µg/L	80	--	--	20	--	149.7

D. Compliance Summary

1. Toxicity

Although chronic toxicity testing showed that eight single chronic toxicity effluent tests exhibited results greater than 1.0 TUc, the 1.0 TUc monthly median trigger was only exceeded once, as follows:

Date	Test Species	Endpoint	NOEC	TUc	Monthly Median (TUc)	EC/IC25	%Effect in 100% Sample
9/3/2009	*Ceriodaphnia dubia*	Survival Reproduction	60% 60%	1.7 1.7	1	60.6% 52.0%	87.5% 87.6%
10/4/2011	*Ceriodaphnia dubia*	Survival Reproduction	100% 80%	1.0 1.2	1	>100% 99.3%	20.0% 25.6%
10/13/2011	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% 1.7%
10/18/2011	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% 7.1%
1/5/2012	*Ceriodaphnia dubia*	Survival Reproduction	100% 50%	1.0 2.0	1	>100% 49.0%	20.0% 30.2%
1/17/2012	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% 6.1%
1/19/2012	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	-11.1% 2.7%
10/2/2012	*Ceriodaphnia dubia*	Survival Reproduction	50% 50%	2.0 2.0	1	57.9% 54.1%	100% 100%
10/23/2012	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0	1	>100% >100%	-11.1% -27.3%

Date	Test Species	Endpoint	NOEC	TUc	Monthly Median (TUc)	EC/IC25	%Effect in 100% Sample
10/25/2012	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0	1	>100% >100%	0% -9.2%
9/12/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 75%	1.0 1.3	1 1.3	>100% >100%	0% 16.6%
10/3/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0	Six Accelerated Tests	>100% >100%	0% -4.9%
10/15/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	10% 9.5%
10/29/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% -20.5%
11/12/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 25%	1.0 4.0		93.8% 93.2%	30% 27.8%
11/26/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% -10.3%
12/10/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	0% -30.4%
12/17/2013	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0	Extra Accelerated Tests	>100% >100%	-11.1% -32.0%
12/31/2014	*Ceriodaphnia dubia*	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	-11.1% -24.6%
	Ceriodaphnia dubia	Survival Reproduction	100% 100%	1.0 1.0		>100% >100%	-11.1% -38.4%
1/14/2014	*Ceriodaphnia dubia*	Survival Reproduction	100% 75%	1.0 1.3		>100% >100%	0% 9.8%

During 2009 and 2011, the Discharger was conducting the most sensitive species screening test, rather than the standard compliance determination testing. Therefore, those exceedances were not considered violations by the Discharger. Following the individual test exceedance in January 2012, the Discharger conducted additional testing during the month and was able to meet the monthly median trigger of 1.0 TUc. There was no observable pattern to the individual trigger exceedances.

The Permittee initiated accelerated testing following the September 12, 2013, individual test exceedance of the Monthly median1.0 TUc trigger. It consisted of ten accelerated tests that continued until two of six consecutive accelerated tests exhibited a TUc of greater than 1.0. Since toxicity was persistent in the effluent, during the accelerated testing period, the Permittee had to investigate what caused the 1 TUc trigger to be exceeded. The Permittee implemented the Toxicity Reduction Evaluation (TRE) Work Plan beginning in January 2014 and submitted the final TRE report to the Regional Water Board on July 23, 2014. However, the results of the TIE were inconclusive and

the cause of toxicity could not be determined. The Permittee resumed regular toxicity testing once toxicity was no longer observed in the effluent.

Eighteen acute toxicity testing results from the same period did not exceed any acute toxicity requirements.

On June 6, 2014, the Regional Water Board issued the Joint Outfall System a Notice of Violation for failure to report a valid toxicity test result in July 2011 (effluent), September 2011 (effluent), February 2012 (receiving water), and April 2012 (effluent).

2. **Other pollutants**
The Pomona WRP also exceeded the total coliform final effluent limitation on 8/17/13. The Discharger reported that the high result was believed to be attributed to sample contamination. The Discharger did not collect a fluoride sample on 2/28/2013 due to a scheduling error. Enforcement action is pending.

3. **Spills**
There were no spills from 2009 through 2013.

4. **Plant Shut Downs**
The plant was temporarily shut down hydraulically on 8/28/2013, 9/12/2013, 1/15/2014, 2/11/2014, and 4/10/2014 for maintenance purposes.

E. Planned Changes

The Pomona WRP's treatment system had been upgraded in the past to nitrify and de-nitrify the effluent for ammonia-nitrogen and nitrate-nitrogen removal. However, there are no major planned upgrades proposed by the Permittee. In May 2011 a new effluent flow meter was installed. In 2013, upgrades to the filter effluent pump station electrical system were completed.

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 (CWC; 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 United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the CWC (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 CWC 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 for the Los Angeles Region (Basin Plan) on June 4, 1994 that designates beneficial uses, establishes water quality objectives (WQOs), 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 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. On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential MUN-designated water bodies. On August 22, 2000, the City of Los Angeles, City of Burbank, City of Simi Valley, and the County Sanitation Districts of Los Angeles County challenged USEPA's water quality standards action in the U.S. District Court. On December 18, 2001, the court issued an order remanding the matter to USEPA to take further action on the 1994 Basin Plan consistent with the court's decision. On February 15, 2002, USEPA revised its decision and approved the 1994 Basin Plan in whole. In its February 15, 2002 letter, USEPA stated:

> EPA bases its approval on the court's finding that the Regional Board's identification of waters with an asterisk ("*") in conjunction with the implementation language at page 2-4 of the 1994 Basin Plan, was intended "to only conditionally designate and not finally designate as MUN those water bodies identified by an ('*') for the MUN use in Table 2-1 of the Basin Plan, without further action." Court Order at p. 4. Thus, the waters identified with an ("*") in Table 2-1 do not have MUN as a designated use until such time as the State undertakes additional study and modifies its Basin Plan. Because this conditional use designation has no legal effect, it does not constitute a new water quality standard subject to EPA review under section 303(c)(3) of the Clean Water Act ("CWA"). 33 U.S.C. § 1313(c)(3).

USEPA's decision has no effect on the MUN designations of groundwater.

Beneficial uses applicable to South Fork San Jose Creek are as follows:

Table F-3. Basin Plan Beneficial Uses – Receiving Waters

Hydrologic Unit Code (HUC)	Receiving Water Name	Beneficial Use(s)
180701060501 (Hydro unit 405.51)	San Jose Creek Reach 2	Existing: wildlife habitat (WILD); Intermittent: groundwater recharge (GWR); non-contact water recreation (REC-2); and, warm freshwater habitat (WARM); Potential: water contact recreation (REC-1) and municipal and domestic water supply (MUN[2]).
180701060502 (Hydro unit 405.41)	San Jose Creek Reach 1	Existing: wildlife habitat (WILD); Intermittent: groundwater recharge (GWR); non-contact water recreation (REC-2); and, warm freshwater habitat (WARM); Potential: water contact recreation (REC-1) and MUN[2*].
180701060601 (Hydro unit 405.41)	San Gabriel River Reach 3- San Jose Creek to Ramona Blvd.	Existing: WILD Intermittent: GWR, REC-1, REC-2, and WARM Potential: MUN[2].
180701060606 (Hydro unit 405.15)	San Gabriel River Reach 2 – Whittier Narrows to Firestone Blvd.	Existing: REC-1, REC-2, WILD, and rare, threatened, or endangered species (RARE); Intermittent: GWR and WARM Potential: industrial service supply (IND), and industrial process supply (PROC), and MUN[2].
180701060606 (Hydro unit 405.15)	San Gabriel River Reach 1: Firestone Boulevard to Estuary	Existing: REC-1 and REC-2 Potential: MUN[2], WARM, and WILD.
180701060606 (Hydro unit 405.15)	San Gabriel River Estuary	Existing: IND, navigation (NAV), REC-1, REC-2, commercial and sport fishing (COMM), estuarine habitat (EST), marine habitat (MAR), WILD, RARE, migration of aquatic organisms (MIGR); and spawning, reproduction, and/or early development (SPWN). Potential: shell harvesting (SHELL)

Beneficial uses of the receiving ground waters are as follows:

Table F-4. Basin Plan Beneficial Uses – Ground Waters

Department of Water Resources (DWR) Basin	Receiving Water Name	Beneficial Use(s)				
		MUN	IND	PROC	AGR	AQUA
4-13	**San Gabriel Valley**	existing	existing	existing	existing	
4-11.04	**Coastal Plain of Los Angeles**					
	Central basin	existing	existing	existing	existing	

[2] The potential municipal and domestic supply (p*MUN) beneficial use for the waterbody is consistent with the State Water Resources Control Board Resolution 88-63 and Regional Water Board Resolution No. 89-003; however, the Regional Water Board has only conditionally designated the MUN beneficial use of the surface water and at this time cannot establish effluent limitations designed to protect the conditional designation.

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

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

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

5. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, and pH are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are carried over from the previous permit.

   WQBELs have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs 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 CFR § 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.

6. **Antidegradation Policies.** Federal regulation 40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to

Maintaining the Quality of the Waters of the State"). 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 discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR § 131.12 and State Water Board Resolution 68-16.

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

8. **Endangered Species Act (ESA) 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 ESA (Fish and Game Code, sections 2050 to 2097) or the Federal ESA (16 USC sections 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 Permittee is responsible for meeting all requirements of the applicable ESA.

9. **Water Rights.** 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 surface or subterranean stream, the Permittee must file a petition with the State Water Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under CWC section 1211.

10. **Domestic Water Quality.** 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 developed to protect human health and ensure that water is safe for domestic use.

11. **Water Recycling -** In accordance with statewide policies concerning water reclamation[3], this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The Permittee submitted a feasibility study on January 3, 2014, investigating the feasibility of recycling, conservation, and/or alternative disposal methods of wastewater (such as groundwater injection) and/or use of storm water and dry-weather urban runoff. The Permittee shall submit an update to this feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

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

[3] See, e.g., CWC sections 13000 and 13550-13557, State Water Board Resolution No. 77-1 (Policy with Respect to Water Reclamation in California), and State Water Board Resolution No. 2009-0011 (Recycled Water Policy).

13. **Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR part 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The state has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency to require compliance with 40 CFR Part 503.

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

The State Water Board proposed the California 2008-2010 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing 303(d) List of Impaired Waters and 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested parties. The Regional Water Boards' Integrated Reports were used to revise their 2006 303(d) List. On August 4, 2010, the State Water Board adopted the California 2008-2010 Integrated Report. On November 12, 2010, the USEPA approved California 2008-2010 Integrated Report Section 303(d) List of Impaired Waters requiring Total Maximum Daily Loads (TMDL) for the Los Angeles Region. The 303(d) List can be viewed at the following link:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

San Jose Creek, San Gabriel River and their tributaries are in the California 2008-2010 Integrated Report. The following are the identified pollutants impacting the receiving water:

San Jose Creek Reach 2 (Temple to I-10 and White Ave.)
Pollutant: Coliform bacteria

San Jose Creek Reach 1 (San Gabriel confluence to Temple St.)
Pollutants: Ammonia, Coliform bacteria, TDS, Toxicity and pH

San Gabriel River Reach 2 (Firestone Blvd. to Whittier Narrows Dam) -- Hydrologic unit 405.15, Calwater Watershed 18070104
Pollutants: Coliform bacteria, cyanide and lead.

San Gabriel River Reach 1 (Estuary to Firestone Blvd.) -- Hydrologic unit 405.15, Calwater Watershed 18070104
Pollutants: Coliform bacteria and pH.

San Gabriel River Estuary -- Hydrologic unit 405.15, Calwater Watershed 18070104
Pollutants: Copper, dioxin, nickel, and dissolved oxygen.

E. Other Plans, Polices and Regulations

1. Sources of Drinking Water Policy. On May 19, 1988, the State Water Board adopted Resolution No. 88-63, Sources of Drinking Water (SODW) Policy, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Water Board's SODW Policy, on March 27, 1989, the Regional Water Board adopted Resolution No. 89-03, Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B).

   Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional

designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Water Board's enabling resolution] until the Regional Water Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Water Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Water Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

2. **Title 22 of the California Code of Regulations (CCR Title 22).** The California Department of Public Health (CDPH) established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

3. **Secondary Treatment Regulations**. 40 CFR part 133 of establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.

4. **Storm Water**. CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, *General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities*. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity. General *NPDES Permit No. CAS000001* was revised on April 1, 2014 and becomes effective on July 1, 2015.

   Stormwater runoff from the Pomona WRP is regulated separately under General NPDES permit No. CAS000001. On June 4, 1992, the City filed a Notice of Intent to comply with the requirements of the general permit. The Permittee developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Water Board's General NPDES permit No. CAS000001.

5. **Sanitary Sewer Overflows (SSOs).** The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code (USC) sections 1311 and 1342). The State Water Board adopted General WDRs for Sanitary Sewer Systems, (Water Quality Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory

approach to address SSOs. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSO WDR, the Permittee's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Permittee must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order sections VI.C.3.b (Spill Cleanup Contingency Plan section), VI.C.4 (Construction, Operation and Maintenance Specifications section), and VI.C.6 (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

6. **Watershed Management -** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region, as detailed in the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science. Information about the San Gabriel River Watershed and other watersheds in the region can be obtained from the Regional Water Board's web site at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/index.shtml#Watershed. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available.

   The accompanying Order fosters the implementation of this approach by protecting beneficial uses in the watershed and requiring the Discharger to participate with other stakeholders, in the development and implementation of a watershed-wide monitoring program. The Monitoring and Reporting Program (Attachment E) requires the Discharger to undertake the responsibilities delineated under an approved watershed-wide monitoring plan in the implementation of the Watershed-wide Monitoring Program for the San Gabriel River, which was approved by the Regional Water Board on September 25, 2006.

   The Regional Water Board has prepared and periodically updates its Watershed Management Initiative Chapter, the latest is updated June 2000. This document contains a summary of the region's approach to watershed management. It addresses each watershed and the associated water quality problems and issues. It describes the background and history of each watershed, current and future activities, and addresses

TMDL development. The information can be accessed on our website: http://www.waterboards.ca.gov/losangeles.

7. **Relevant TMDLs –** Section 303(d) of the CWA requires states to identify water bodies that do not meet water quality standards and then to establish TMDLs for each waterbody for each pollutant of concern. TMDLs identify the maximum amount of pollutants that can be discharged to waterbodies without causing violations of water quality standards.

   San Gabriel River and Tributaries Metals TMDL - On March 26, 2007, USEPA established the San Gabriel River watershed metals TMDLs. This Order includes effluent limitations for metals established by USEPA TMDLs. These effluent limitations are consistent with the concentration-based Waste Load Allocations (WLA) established for the POTWs and other point sources in these TMDLs. In this permit, Regional Water Board staff translate WLAs into effluent limitations by applying the CTR/SIP procedures or other applicable engineering practices authorized under federal regulations. The copper, lead, and zinc waste load allocations for Coyote Creek and San Gabriel River may be modified based on the results of new studies if the USEPA approves a revised TMDL and Implementation Plan for Metals in the San Gabriel River.

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 40 CFR § 122.44(a) requires that permits include applicable TBELs and standards; and 40 CFR § 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The variety of potential pollutants found in discharges from the Facility present a potential for aggregate toxic effects to occur. Whole effluent toxicity (WET) is an indicator of the combined effect of pollutants contained in the discharge. Chronic toxicity is a more stringent requirement than acute toxicity. Therefore, chronic toxicity is considered pollutant of concern for protection and evaluation of narrative Basin Plan Objectives.

A. Discharge Prohibitions

Effluent and receiving water limitations in this Board Order are based on the CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. This order authorizes the discharge of tertiary-treated wastewater from Discharge Points 001. It does not authorize any other types of discharges.

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Permittee to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary treatment" --that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA

required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology- based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of $BOD_5$20°C, TSS, and pH.

2. **Applicable TBELs**

This Facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of $BOD_5$20°C, TSS, and pH. However, all TBELs from the previous Order No. R4-2009-0076 are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding. Further, mass-based effluent limitations are based on a design flow rate of 15.0 mgd. The removal efficiency for BOD and TSS is set at the minimum level attainable by secondary treatment technology. The principal design parameter for wastewater treatment plants is the daily BOD and TSS loading rates and the corresponding removal rate of the system. In applying 40 CFR Part 133 for weekly and monthly average BOD and TSS limitations, the application of tertiary treatment processes results in the ability to achieve lower levels for BOD and TSS than the secondary standards. In addition to the average weekly and average monthly effluent limitations, a daily maximum effluent limitation for BOD and TSS is included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. The following Table summarizes the TBELs applicable to the Facility:

Table F-5. Summary of TBELs

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5$20°C	mg/L	20	30	45	--	--
	lbs/day[4]	2500	3800	5600	--	--
TSS	mg/L	15	40	45	--	--
	lbs/day[4]	1900	5000	5600	--	--
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--	--	--

This Facility is also subject to TBELs contained in similar NPDES permits, for similar facilities, based on the treatment level achievable by tertiary-treated wastewater treatment systems. These effluent limitations are consistent with the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 for the City of Woodland. The Pomona WRP is able to meet these limitations with the existing treatment processes in place in the POTW.

C. Water Quality-Based Effluent Limitations (WQBELs)

[4] The mass emission rates are based on the plant design flow rate of 15.0 MGD, and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

1. **Scope and Authority**

CWA section 301(b) and 40 CFR § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, that are necessary to achieve water quality standards. The Regional Water Board has considered the factors listed in CWC section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed starting from section IV.C.2.

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

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable WQOs and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

a. The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of the South Fork San Jose Creek affected by the discharge have been described previously in this Fact Sheet.

b. The Basin Plan also specifies narrative and numeric WQOs applicable to surface water as shown in the following discussions.

i. **$BOD_5$20°C and TSS**

$BOD_5$20°C is a measure of the quantity of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, fish kills.

40 CFR part 133 describes the minimum level of effluent quality attainable by secondary treatment, for BOD and TSS, as:

- The 30-day average shall not exceed 30 mg/L, and

- The 7-day average shall not exceed 45 mg/L.

Pomona WRP provides tertiary treatment. As such, the BOD and TSS limits in the permit are more stringent than secondary treatment requirements and are based on Best Professional Judgment (BPJ). The Facility achieves solids removals that are better than secondary-treated wastewater by filtering the effluent.

The monthly average, the 7-day average, and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. Those limits were all included in the previous permit (Order R4-2009-0076) and the Pomona WRP has been able to meet both limits (monthly average and the daily maximum), for both BOD and TSS.

In addition to having mass-based and concentration-based effluent limitations for BOD and TSS, the Pomona WRP also has a percent removal requirement for these two constituents. In accordance with 40 CFR §s 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the Facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

ii. **pH**

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. In accordance with 40 CFR § 133.102(c), the effluent values for pH shall be maintained within the limits of 6.0 to 9.0 unless the POTW demonstrates that (1) inorganic chemicals are not added to the waste stream as part of the treatment process; and (2) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0. The effluent limitation for pH in this permit requiring that the wastes discharged shall at all times be within the range of 6.5 to 8.5 is taken from the Basin Plan (page 3-15) which reads "the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge."

iii. **Settleable solids**

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin Plan (page 3-16) narrative, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." The numeric limits are empirically based on results obtained from the settleable solids 1-hour test, using an Imhoff cone.

It is impracticable to use a 7-day average limitation, because short-term spikes of settleable solid levels that would be permissible under a 7-day

average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit (Order R4-2009-0076) and the Pomona WRP has been able to meet both limits.

iv. **Oil and grease**

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation, because spikes that occur under a 7-day average scheme could cause a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. Both limits were included in the previous permit (Order No. R4-2009-0076) and the Pomona WRP has been able to meet both limits.

v. **Residual Chlorine**

Disinfection of wastewaters with chlorine produces a chlorine residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-9) narrative, "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."

It is impracticable to use a 7-day average or a 30-day average limitation, because it is not as protective as of beneficial uses as a daily maximum limitation is. Chlorine is very toxic to aquatic life and short term exposures of chlorine may cause fish kills.

vi. **Total Dissolved Solids (TDS), Chloride, Sulfate, and Boron**

The limitations for total dissolved solids, chloride, sulfate, and boron are based on Basin Plan Table 3-8 (page 3-13), for the San Gabriel River watershed (between Ramona Boulevard and Firestone Boulevard). TDS = 750 mg/L; and Sulfate = 300 mg/L. Boron = 1.0 mg/L only applies to the San Gabriel River. The Chloride limit is no longer 150 mg/L, but 180 mg/L, which resulted from Regional Water Board Resolution No. 97-02, Amendment to the Water Quality Control Plan to incorporate a Policy for Addressing Levels of Chloride in Discharges of Wastewaters. Resolution 97-02 was adopted by

Regional Water Board on January 27, 1997; approved by SWRCB (Resolution 97-94); and, approved by OAL on January 8, 1998; and served to revise the chloride water quality objective in the San Gabriel River and other surface waters. It is practicable to express these limits as monthly averages, since they are not expected to cause acute effects on beneficial uses.

Limits based upon the Basin Plan Objectives have been included in this Order because, based upon Best Professional Judgment, these constituents are always present in potable water which is the supply source of the wastewater entering the Treatment Plant. They may be present in concentrations which meet California drinking water standards but exceed the Basin Plan Objectives. Therefore, limitations are warranted to protect the beneficial uses of the receiving water.

vii. **Methylene Blue Activated Substances (MBAS)**

The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface and ground waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of both surface and ground waters.

Given the nature of the facility (a POTW) which accepts domestic washwater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for prohibition of floating material such as foams and scums. Therefore, an effluent limitation is required.

The discharge from the Pomona WRP may have reasonable potential to contribute to an exceedance of the 0.5 mg/L WQO. The 0.5 mg/L concentration (which has been determined to be protective of beneficial uses and the aesthetic quality of waters) is based on the Department of Public Health's (formerly known as the Department of Health Services) secondary drinking water standard, and on the Basin Plan WQO (p.3-11) which reads, "Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN." While the wastewater from this POTW is not directly discharged into a MUN designated surface water body, it will percolate into unlined reaches of the San Gabriel River [via ground water recharge designated beneficial use (GWR)] to ground water designated for MUN beneficial use. In addition, the Basin Plan states that "Ground water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the secondary MCL should be the MBAS limit for this discharge to protect ground water recharge and the MUN use of the underlying ground water, while also protecting surface waters from exhibiting scum or foaming.

Since the Basin Plan objective is based on a secondary drinking water standard, it is practicable to have a monthly average limitation in the permit, rather than a daily maximum.

The existing permit effluent limitation of 0.5 mg/l for MBAS was developed based on the Basin Plan incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water groundwater recharge (GWR) beneficial use and the groundwater basin's MUN beneficial use. Given the nature of the Facility which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the pollutants discharged, the discharge has reasonable potential to exceed both the numeric MBAS WQO and the narrative WQO for the prohibition of floating material such as foams and scums. The discharge has tier 3 Reasonable Potential (RP), therefore an effluent limitation is required.

viii. **Total Inorganic Nitrogen (NO_2 + NO_3 as N)**

Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen is also considered a nutrient. Excessive amounts of nutrients can lead to other water quality impairments.

(a) **Algae**

Excessive growth of algae and/or other aquatic plants can degrade water quality. Algal blooms sometimes occur naturally, but they are often the result of excess nutrients (i.e., nitrogen, phosphorus) from waste discharges or nonpoint sources. These algal blooms can lead to problems with tastes, odors, color, and increased turbidity and can depress the dissolved oxygen content of the water, leading to fish kills. Floating algal scum and algal mats are also an aesthetically unpleasant nuisance.

The WQO for biostimulatory substances are based on Basin Plan (page 3-8) narrative, "Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses," and other relevant information to arrive at a mass based-limit intended to be protective of the beneficial uses, pursuant to 40 CFR § 122.44(d). Total inorganic nitrogen will be the indicator parameter intended to control algae, pursuant to 40 CFR § 122.44(d)(1)(vi)(C).

(b). **Concentration-based limit**

Total inorganic nitrogen (NO_2–N + NO_3–N) effluent limitation of 8 mg/L is based on Basin Plan Table 3-8 (page 3-13, for San Gabriel River between Ramona Boulevard and Firestone Boulevard.

(c). **Mass-based limit**

The mass emission rates are based on the plant design flow rate of 15.0 mgd.

ix. **Nitrite as Nitrogen**

The effluent limit for nitrite as nitrogen (NO_2-N) of 1.0 mg/L is based on the Basin Plan and best professional judgement. The mechanism for reducing ammonia concentrations in the effluent involves the nitrification-denitrification treatment process, where the ammonia and organic nitrogen are oxidized to nitrite before final conversion to nitrate. Therefore there is reasonable

potential for nitrite to be present in the discharge if the oxidation process is not complete.

$2NH_4$+ (ammonia) + $3O_2 \rightarrow 4H^+ + 2NO_2^-$ (nitrite) + H_2O (water)

$2NO_2^-$ (nitrite) + $O_2 \rightarrow 2NO_3^-$ (nitrate)

x. **Total ammonia**

Ammonia is a pollutant routinely found in the wastewater effluent of POTWs, in landfill-leachate, as well as in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. There is groundwater recharge in these reaches. Ammonia also combines with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

(a) San Gabriel River Ammonia

The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board, with the adoption of Resolution No. 2002-011, *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 Beneficial Use designations for protection of Aquatic Life*. Resolution No. 2002-011 was approved by the State Water Board, OAL, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively, and is now in effect.

On December 1, 2005, the Regional Water Board adopted Resolution No. 2005-014, An Amendment to the *Water Quality Control Plant for the Los Angeles Region to Revise Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life.* This amendment contains ammonia objectives to protect Early Life Stages (ELS) of fish in inland surface water supporting aquatic life. This resolution was approved by the USEPA on April 5, 2007. This amendment revised the implementation provision included as part of the freshwater ammonia objectives relative to the protection of ELS of fish in inland surface waters.

On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles*

Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds. This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site- specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. The State Water Board, OAL, and USEPA approved this Basin Plan amendment on January 15, 2008, May 12, 2008, and March 30, 2009, respectively. Resolution No. 2007-005 went into effect on April 23, 2009.

(b) Applicable Ammonia Objectives

The Pomona WRP discharges into the San Gabriel River Watershed, which is governed by the Basin Plan amendment with respect to Inland Surface Water Ammonia Objectives. The Basin Plan-derived ammonia nitrogen effluent limitations, without applying the Ammonia SSO, are equal to 2.4 mg/L and 4.9 mg/L, average monthly and maximum daily limits, respectively.

The Regional Water Board has adopted NPDES permits recently using an approach for calculating both the end-of-pipe limitations for ammonia, as well as receiving water limitations that address site-specific characteristics of effluent, and the receiving water. These limitations are protective of beneficial uses.

The procedures for calculating the ammonia nitrogen effluent limitation based on Basin Plan amendment is discussed below:

(1) **One-Hour Average Objective**

The Facility's immediate receiving waterbody has no "COLD" or "MIGR" beneficial use designation. Although the downstream most portion of the San Gabriel River Estuary has an "MIGR" beneficial use designation, according to the USEPA approval letter dated June 19, 2003, of the 2002 Ammonia Basin Plan Amendment, EPA discussed it clearly that the acute criteria are dependent on pH and whether sensitive coldwater fish are present. Although the Estuary has an MIGR, it has no COLD beneficial use designation. There are no coldwater fish present in the receiving water. Therefore, the receiving water will be designated as "Waters not Designated Cold or MIGR." The one-hour average objective is dependent upon whether or not salmonid fish are present and on pH. However, the one-hour average objective is not temperature-dependent. For waters not designated COLD or MIGR, the one-hour average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-1 (amended on April 25, 2002) of the Basin Plan or as described in the equation below:

$$\text{One-hour Average Concentration} = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

The 90th percentile of effluent pH is 7.5. Use of the 90th percentile pH to set effluent limitations is appropriate because of the shorter time scale of the one-hour average. It is conservative, because it is overprotective 90% of the time. Additionally, there is little variability in the effluent pH data. Using the pH value of 7.5 in the formula above, the resulting One-hour Average Objective is equal to 19.9 mg/L.

(2) **30-Day Average Objective**

Early life stage of fish is presumptively present and must be protected at all times of the year unless the water body is listed in Table 3-X, *Water Bodies Subject to 30-day Average Objective Applicable to "ELS Absent" Condition*, of Attachment A of the Basin Plan (in Resolution No. 2005-014) or unless a site-specific study is conducted, which justifies applying the ELS absent condition or a seasonal ELS present condition. The Pomona WRP discharges to the South Fork of San Jose Creek, tributary to San Jose Creek, within Hydro Unit 405.51, in the San Gabriel River Watershed. Therefore, the ELS Absent condition applies. For freshwaters subject to the "Early Life Stage Absent" condition, the thirty-day average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-3 of the Basin Plan. However, for temperatures above 15 °C, Table 3-3 reverts to Table 3-2, or as described in the equation below:

$$\text{30-day Average Concentration} = \left(\frac{0.0577}{1+10^{7.688-\text{pH}}} + \frac{2.487}{1+10^{\text{pH}-7.688}}\right) * MIN\left(2.85, 1.45*10^{0.028*(25-T)}\right)$$

Where T = temperature expressed in °C.

The 30-day average objective[5] is dependent on pH, temperature, and the presence or absence of early life stages of fish. The 50th percentile of effluent pH and temperature is 7.3 pH and 25°C, respectively. Use of the 50th percentile pH and temperature is appropriate to set the 30-day average objective, because the 30-day average represents more long-term conditions. Additionally, there is little variability in the effluent pH data, and the 30-day objective is primarily dependent upon pH. Using the Discharger's monitoring data in the formula above, the resulting 30-Day Average Objective is equal to 2.58 mg/L.

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[5] This is the current Basin Plan definition of the 30-day average objective, according to the Ammonia Basin Plan Amendment, Resolution No. 2002-011, *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 Beneficial Use designations for protection of "Aquatic Life,"* adopted by the Los Angeles Regional Water Quality Control Board on April 25, 2002. It was amended by Resolution No. 2005-014, adopted by the Regional Water Board on December 1, 2005 and was approved by the USEPA on April 5, 2007. This new Resolution implements ELS Provision as described under "implementation", subparagraph 3. In this Resolution, the Discharger's receiving waterbody is designated as ELS present.

(3) **4-Day Objective**

From the Basin Plan Amendment, the 4-Day Average Objective is equal to 2.5 times the 30-Day Average Objective. The resulting 4-Day Average Objective is equal to 6.45 mg/L.

(4) **Site Specific Objective (SSO) 30-Day Average Objective**

On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds.* This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. Resolution No. 2007-005was approved by the State Water Board, OAL, and USEPA on January 15, 2008, May 12, 2008, and March 30, 2009, respectively. It became operative on April 23, 2009. As part of its triennial review process, the Regional Board shall reconsider the continued appropriateness of the site-specific objectives. The application of the SSO is not considered backsliding under Exception (2) of Section 402(o)(2) of the Clean Water Act 40 CFR 122.44. The SSO 30-Day Average Objective is determined with two different formulas, incorporating the seasonality of early life stages (ELS) of fish in San Jose Creek, according to Attachment 1 of the Basin Plan amendment.

From April 1 to September 30, when ELS are present, the following formula applies to San Jose Creek (Pomona WRP to confluence with San Gabriel River):

$$CCC_{SSO\ 30\text{-}Day\ Average\ ELS\ P} = \left(\frac{0.0676}{1+10^{7.688-pH}}+\frac{2.912}{1+10^{pH-7.688}}\right)*0.92*MIN(\ 2.85,2.02*10^{0.028*(25-T)}\ )$$

From October 1 to March 31, when ELS are absent, the following formula applies:

$$CCC_{SSO\ 30\text{-}Day\ Average\ ELS\ A} = \left(\frac{0.0676}{1+10^{7.688-pH}}+\frac{2.912}{1+10^{pH-7.688}}\right)*0.92*2.02*(\ 10^{0.028*(25-MAX(T,7)}\ )$$

(5) **Translation of Ammonia Nitrogen Objectives into Effluent Limitations without using the Ammonia SSO**

In order to translate the water quality objectives for ammonia into effluent limitations, described in the preceding discussions, Regional Water Board staff followed the Implementation Provisions of the 2002 Basin Plan Amendment, Section 5 – Translation of Objectives into Effluent Limits, as discussed below. This method is similar to the

method contained in "Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2000). The method is also consistent with that outlined in the US EPA "Technical Support Document for Water Quality-based Toxics Control (1991).

Step 1 – Identify applicable water quality criteria.

Effluent pH and temperature are used to calculate effluent ammonia limits. This is appropriate when using the translation procedure, because the translation procedure uses variability in ammonia effluent concentrations to set the limits from the objectives. Additionally, conditions in the effluent may be significantly different than conditions in the receiving water. Use of effluent data to set effluent ammonia limits will ensure that ammonia water quality objectives are met in the effluent at all times, even in the case where effluent conditions are less favorable than receiving water conditions. Additional receiving water monitoring and compliance determinations will be required in addition to the effluent limits, to ensure that ammonia water quality objectives are met in the receiving water at all times.

The Discharger's effluent data is summarized below:

pH = 7.5 at 90th percentile (from July 2009 to September 2013)
pH = 7.3 at 50th percentile (from July 2009 to September 2013)
Temperature = 25°C at the 50th percentile

The receiving water is classified as Waters Not Designated COLD and/or MIGR.

From Table 3-1 of the Basin Plan, when pH is equal to 7.5;
One-hour Average Objective = 19.9 mg/L

From Table 3-2 of the Basin Plan, when pH = 7.3 and temperature = 25°C;
30-day Average Objective = 2.58 mg/L

From Basin Plan amendment Resolution No. 2002-011;
4-day Average Objective = 2.5 times the 30-day average objective.
4-day Average Objective = 2.5 X 2.58 = 6.45 mg/L

Ammonia Water Quality Objectives (WQO) Summary:

One-hour Average= 19.9 mg/L
Four-day Average = 6.45 mg/L
30-day Average $_{\text{all year long}}$ = 2.58 mg/L

Step 2 – For each water quality objective, calculate the effluent concentration allowance (ECA) using the steady-state mass balance model. Since mixing has not been allowed by the Regional Water Board, this equation applies:

ECA = WQO

Step 3 – Determine the Long-Term Average discharge condition (LTA) by multiplying each ECA with a factor (multiplier) that adjust for variability. By using Table 3-6, calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 0.4

$ECA\ multiplier_{One\text{-}hour\ Average} = 0.440$
$ECA\ multiplier_{Four\text{-}day\ Average} = 0.643$
$ECA\ multiplier_{30\text{-}day\ Average} = 0.846$

Using the LTA equations:

$LTA_{1\text{-}hour/99} = ECA_{1\text{-}hour} \times ECA\ multiplier_{1\text{-}hour99} = 19.9 \times 0.440 = 8.76\ mg/L$

$LTA_{4\text{-}day/99} = ECA_{4\text{-}day} \times ECA\ multiplier_{4\text{-}day99} = 6.45 \times 0.643 = 4.1\ mg/L$

$LTA_{30\text{-}day/99} = ECA_{30\text{-}day} \times ECA\ multiplier_{30\text{-}day99} = 2.58 \times 0.846 = 2.18\ mg/L$

Step 4 – Select the (most limiting) of the LTAs derived in Step 3 (LTA_{min})

$LTA_{min} = 2.18\ mg/L$, the $LTA_{30\text{-}day/99}$

Step 5 – Calculate water quality based effluent limitation MDEL and AMEL by multiplying LTA_{min} as selected in Step 4, with a factor (multiplier) found in Table 3-7.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the $LTA_{30\text{-}day/99}$, therefore n = 30, CV = 0.4.

MDEL multiplier = 2.27
AMEL multiplier = 1.12

$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 2.18 \times 2.27 = 4.9\ mg/L$

$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 2.18 \times 1.12 = 2.4\ mg/L$

Table F-6. Translated Ammonia Effluent Limitations without Ammonia SSO

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen	4.9	2.4

(6) **Translation of Ammonia Nitrogen Objectives into Effluent Limitations by applying the Ammonia SSO:**

Step 1 – Identify applicable water quality criteria.

The Discharger's effluent data is separated by time of year when ELS are present (from April 1 to September 30) and when ELS are absent (from October 1 to March 31), from 2009 to 2013:

ELS Present:

pH = 7.3 at 50th percentile and Temperature = 27°C
pH = 7.5 at 90^{th} percentile and Temperature = 29°C

From Table 3-1 of the Basin Plan, using 90^{th} percentile pH 7.5;
One-hour Average Objective = 26.2 mg/L

The Ammonia SSO formula replaces Table 3-2 of the Basin Plan.
Using 50^{th} percentile pH 7.3 and temperature = 27°C;
30-day Average $_{SSO\ ELA\ Present}$ = 3.4 mg/L

From Basin Plan amendment Resolution No. 2002-011;
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 3.4 = 8.5 mg/L

ELS Absent:

pH = 7.4 at 50th percentile and Temperature = 22°C
pH = 7.5 at 90^{th} percentile and Temperature = 27 °C

From Table 3-1 of the Basin Plan, using 90^{th} percentile pH 7.5;
One-hour Average Objective = 19.9 mg/L

The Ammonia SSO formula replaces Table 3-2 of the Basin Plan.
Using 50^{th} percentile pH 7.4 and temperature = 22°C;
30-day Average $_{SSO\ ELA\ Absent}$ = 4.4 mg/L

From Basin Plan amendment Resolution No. 2002-011;
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 4.4 = 11 mg/L

Step 2 – For each water quality objective, calculate the effluent concentration allowance (ECA) using the steady-state mass balance model. Since mixing has not been allowed by the Regional Water Board, this equation applies:

ECA = WQO

Step 3 – Determine the Long-Term Average discharge condition (LTA) by multiplying each ECA with a factor (multiplier) that adjust for variability. By using Table 3-6, calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 0.4

ECA multiplier$_{One\text{-}hour\ Average}$ = 0.44
ECA multiplier$_{Four\text{-}day\ Average}$ = 0.643
ECA multiplier$_{30\text{-}day\ Average}$ = 0.846

Using the LTA equations:

ELS Present:

$LTA_{1\text{-hour/99}} = ECA_{1\text{-hour}} \times ECA\ multiplier_{1\text{-hour99}}$
$= 26.2 \times 0.44 = 11.528 = 11.5$ mg/L

$LTA_{4\text{-day/99 ELS Present}} = ECA_{4\text{-day}} \times ECA\ multiplier_{4\text{-day99}}$
$= 8.5 \times 0.643 = 5.4655 = 5.5$ mg/L

$LTA_{30\text{-day/99 ELS Present}} = ECA_{30\text{-day}} \times ECA\ multiplier_{30\text{-day99}}$
$= 3.4 \times 0.846 = 2.8764 =$ **2.9** mg/L

ELS Absent:

$LTA_{1\text{-hour/99}} = ECA_{1\text{-hour}} \times ECA\ multiplier_{1\text{-hour99}}$
$= 19.9 \times 0.44 = 8.756 = 8.8$ mg/L

$LTA_{4\text{-day/99 ELS Absent}} = ECA_{4\text{-day}} \times ECA\ multiplier_{4\text{-day99}}$
$= 11 \times 0.643 = 7.073$ mg/L

$LTA_{30\text{-day/99 ELS Absent}} = ECA_{30\text{-day}} \times ECA\ multiplier_{30\text{-day99}}$
$= 4.4 \times 0.846 = 3.7224 =$ **3.7** mg/L

Step 4 – Select the (most limiting) of the LTAs derived in Step 3 (LTA_{min})

ELS Present LTA_{min} = **2.9** mg/L
ELS Absent LTA_{min} = **3.7** mg/L

Step 5 – Calculate water quality based MDEL and AMEL by multiplying LTA_{min} as selected in Step 4, with a factor (multiplier) found in Table 3-7.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the $LTA_{30\text{-day/99}}$, therefore n = 30, CV = 0.4.

MDEL multiplier = 2.27
AMEL multiplier = 1.12

ELS Present:

$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 2.9 \times 2.27 = 6.583 = 6.6$ mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 2.9 \times 1.12 = 3.248 = 3.2$ mg/L

ELS Absent:

$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 3.7 \times 2.27 = 8.399 = 8.4$ mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 3.7 \times 1.12 = 4.144 = 4.1$ mg/L

Table F-7. Translated Ammonia Effluent Limitations with Ammonia SSO Applied

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Present April 1 – September 30)	6.6	3.2
Ammonia Nitrogen (ELS Absent October 1 – March 31)	8.4	4.1

(7) **Receiving Water Ammonia Limitation**

To ensure that downstream receiving waters are protected at all times, the Discharger will be required to monitor for ammonia at location RSW-001D, within 12 feet from the discharge outfall. The purpose of the monitoring location will be to ensure that ammonia water quality objectives are met in the receiving water, even immediately downstream of the discharge when there has been little time for uptake or volatilization of ammonia in the receiving water. Concurrent sampling of ammonia, pH, and temperature will be required at this monitoring location. The Discharger will be required to compare ammonia results to Basin Plan ammonia water quality objectives, based on the real-time pH and temperature data collected at the time of ammonia sampling.

This permit includes final effluent ammonia effluent limitations based on effluent pH and temperature. Conditions in the effluent may be significantly different than the receiving water conditions. The Basin Plan's water quality objective for ammonia shall be met at the receiving water at all times. In this permit, the Discharger has to meet the ammonia water quality objectives within the first 12 feet downstream of the discharge outfall.

This permit does not require the Discharger to submit an approvable work plan to determine the pH and temperature fluctuations in the first 100 feet downstream of the discharge outfall, because it has already been determined that RSW-001 is the most suitable location for determining compliance with the receiving water ammonia limitation.

xi. **Coliform**

Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Given the nature of the Facility, a wastewater treatment plant, pathogens are likely to be present in the effluent in cases where the disinfection process is not operating adequately. As such, the permit contains the following filtration and disinfection TBELs for coliform:

(1). Effluent Limitations:

- The 7-day median number of total coliform bacteria at some point in the treatment process must not exceed a Most Probable Number (MPN) or Colony Forming Unit (CFU) of 2.2 per 100 milliliters,

- the number of total coliform bacteria must not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period; and

- No sample shall exceed an MPN or CFU of 240 total coliform bacteria per 100 milliliters.

These disinfection-based effluent limitations for coliform are for human health protection and are consistent with requirements established by the California Department of Public Health. These limits for coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

(2). The following Receiving Water Limitations shall not be exceeded as a result of wastes discharged:

- Geometric Mean Limitations
  - E.coli density shall not exceed 126/100 mL.
- Single Sample Limitations
  - E.coli density shall not exceed 235/100 mL.

These receiving water limitations are based on Resolution No. R10-005, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Freshwaters Designated for Water Contact Recreation by Removing the Fecal Coliform Objective*, adopted by the Regional Water Board on July 8, 2010, and became effective on December 5, 2011.

xii. **Temperature**

USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book,* discusses temperature and its effects on beneficial uses, such as recreation and aquatic life.

- The Federal Water Pollution Control Administration in 1967 called temperature "a catalyst, a depressant, an activator, a restrictor, a stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water." The suitability of water for total body immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).

- Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.

- Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin Plan and 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,* a maximum effluent temperature limitation of 86°F is included in the Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100°F temperature which was formerly used in permits was not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. It is impracticable to use a 7-day average or a 30-day average limitation for temperature, because it is not as protective as of beneficial uses as a daily maximum limitation is. A daily maximum limit is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA.

Section IV.A.3.b. of the Order contains the following effluent limitation for temperature:

> "The temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature."

The above effluent limitation for temperature has been quoted in all recent NPDES permits adopted by this Regional Water Board. Section V.A.1. of the Order explains how compliance with the receiving water temperature limitation will be determined.

xiii. **Turbidity**

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The effluent limitation for turbidity which reads, "For the protection of the water contact recreation beneficial use, the discharge to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTU); (b) 5 NTU more than 5 percent of the time (72 minutes) during any 24 hour period; and (c) 10 NTU at any time" is based on the Basin Plan (page 3-17) and section 60301.320 of Title 22, chapter 3, "Filtered Wastewater" of the CCR.

xiv. **Radioactivity**

Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. Section 301(f) of the CWA contains the following statement with respect to effluent limitations for radioactive substances: "Notwithstanding any of other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters." Chapter 5.5 of the CWC contains a similar prohibition under section 13375, which reads as follows: "The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is hereby prohibited." However, rather than an absolute prohibition on radioactive substances, Regional Water Board staff have set the following effluent limit for radioactivity: "Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, sections 64442 and 64443, of the CCR, or subsequent revisions." The limit is based on the Basin Plan incorporation of Title 22, CCR, *Drinking Water Standards,* by reference, to protect the GWR beneficial use. Therefore, the accompanying Order will retain the limit for radioactivity.

c. **CTR and SIP**

The CTR and the SIP specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis (RPA) to determine the need for effluent limitations for priority pollutants. The TSD also specifies procedures to conduct reasonable potential analyses.

3. **Determining the Need for WQBELs**

The Regional Water Board developed WQBELs for selenium and lead based upon Total Maximum Daily Loads (TMDLs). The TMDLs explicitly assign WLAs WRPs that discharge into specific reaches of the San Gabriel River . The Regional Water Board developed water quality-based effluent limitations for these pollutants in compliance with 40 CFR section 122.44(d)(1)(vii).

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that demonstrate reasonable potential, 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 staff identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Permittee. The monitoring data cover the period from July 2009 to September 2013.

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:

Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

Trigger 2 – If background water quality (B) > C and the pollutant is detected in the effluent, a limitation is needed.

Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, then best professional judgment is used to determine that a limit is needed.

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

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, there were no priority pollutants that demonstrated reasonable potential to exceed the CTR criteria, therefore no final effluent limitations were included in the permit. However, since the San Gabriel River Metals TMDL developed WLAs for the Pomona WRP for lead and selenium, final effluent limitations are included in the permit for these pollutants..

Bis(2-ethylhexyl)phthalate and Total trihalomethanes showed reasonable potential to cause or contribute to the Basin Plan Water Quality Objective, using the USEPA Technical Support Document methodology. The following Table summarizes results from RPA.

Table F-8. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L (upstream station not available)	RPA Result - Need Limitation?	Reason
1	Antimony	6	E 0.46		No	MEC<C
2	Arsenic	10	1.69		No	MEC<C
3	Beryllium	4	<0.25		No	MEC<C
4	Cadmium	4.5	E 0.11		No	MEC<C
5a	Chromium III	380	1.57		No	MEC<C
5b	Chromium VI	11	2.2		No	MEC<C
6	Copper	18	8.12		No	MEC<C
7	**Lead**	**166**	**0.58**		YES	TMDL WLA
8	Mercury	0.051	0.0024		No	MEC<C
9	Nickel	99	3.03		No	MEC<C
10	**Selenium**	**5**	**E 0.61**		YES	TMDL WLA

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L (upstream station not available)	RPA Result - Need Limitation?	Reason
11	Silver	14.9	E 0.08		No	MEC<C
12	Thallium	2	<0.25		No	MEC<C
13	Zinc	227	70		No	MEC<C
14	Cyanide	5.2	E4.9		No	MEC<C
15	Asbestos	$7x10^6$ fibers/L	No sample		No	N/A
16	2,3,7,8-TCDD (Dioxin)	0.014 pg/L	<10 pg/L		No	MEC<C
17	Acrolein	780	E0.67		No	MEC<C
18	Acrylonitrile	0.66	<2		No	MEC<C
19	Benzene	1	<0.5		No	MEC<C
20	Bromoform	360	107		No	MEC<C
21	Carbon Tetrachloride	0.5	<0.5		No	MEC<C
22	Chlorobenzene	21,000	<0.05		No	MEC<C
23	Dibromochloromethane	34	32.9		No	MEC<C
24	Chloroethane	No criteria	<0.5		No	No criteria
25	2-chloroethyl vinyl ether	No criteria	<0.5		No	No criteria
26	Chloroform	No criteria	29.6		No	No criteria
27	Dichlorobromomethane	46	18.1		No	MEC<C
28	1,1-dichloroethane	No criteria	<0.5		No	No criteria
29	1,2-dichloroethane	0.5	<0.5		No	MEC<C
30	1,1-dichloroethylene	3.2	<0.5		No	MEC<C
31	1,2-dichloropropane	5	<0.5		No	MEC<C
32	1,3-dichloropropylene	0.5	<0.5		No	MEC<C
33	Ethylbenzene	0.3	<0.5		No	MEC<C
34	Methyl bromide	4,000	<0.5		No	MEC<C
35	Methyl chloride	No criteria	<0.5		No	No criteria
36	Methylene chloride	1,600	E 0.21		No	MEC<C
37	1,1,2,2-tetrachloroethane	1	<0.5		No	MEC<C
38	Tetrachloroethylene	5	<0.5		No	MEC<C
39	Toluene	150	E 0.31		No	MEC<C
40	Trans 1,2-Dichloroethylene	10	<0.5		No	MEC<C
41	1,1,1-Trichloroethane	200	<0.5		No	MEC<C
42	1,1,2-Trichloroethane	5	<0.5		No	MEC<C
43	Trichloroethylene	5	<0.5		No	MEC<C
44	Vinyl Chloride	0.5	<0.5		No	MEC<C
45	2-chlorophenol	400	<5		No	MEC<C
46	2,4-dichlorophenol	790	<5		No	MEC<C
47	2,4-dimethylphenol	2,300	<2		No	MEC<C
48	4,6-dinitro-o-resol(aka 2-methyl-4,6-Dinitrophenol)	765	<5		No	MEC<C
49	2,4-dinitrophenol	14,000	<5		No	MEC<C
50	2-nitrophenol	No criteria	<10		No	No criteria
51	4-nitrophenol	No criteria	<10		No	No criteria

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L (upstream station not available)	RPA Result - Need Limitation?	Reason
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No criteria	<1		No	No criteria
53	Pentachlorophenol	8.2	<0.25		No	MEC<C
54	Phenol	4,600,000	2.6		No	MEC<C
55	2,4,6-trichlorophenol	6.5	E0.72		No	MEC<C
56	Acenaphthene	2,700	<1		No	MEC<C
57	Acenaphthylene	No criteria	<10		No	No criteria
58	Anthracene	110,000	<10		No	MEC<C
59	Benzidine	0.00054	<5		No	MEC<C
60	Benzo(a)Anthracene	0.049	<5		No	MEC<C
61	Benzo(a)Pyrene	0.049	<0.02		No	MEC<C
62	Benzo(b)Fluoranthene	0.049	<0.02		No	MEC<C
63	Benzo(ghi)Perylene	No criteria	<5		No	No criteria
64	Benzo(k)Fluoranthene	0.049	E 0.008		No	MEC<C
65	Bis(2-Chloroethoxy) methane	No criteria	<5		No	No criteria
66	Bis(2-Chloroethyl)Ether	1.4	<1		No	MEC<C
67	Bis(2-Chloroisopropyl) Ether	170,000	<2		No	MEC<C
68	**Bis(2-Ethylhexyl) Phthalate**	4.0	3		YES	MEC>C, USEPA Technical Support Document Methodology
69	4-Bromophenyl phenyl ether	No criteria	<5		No	No criteria
70	Butylbenzyl Phthalate	5,200	<10		No	MEC<C
71	2-Chloronaphthalene	4,300	<10		No	MEC<C
72	4-Chlorophenyl Phenyl Ether	No criteria	<5		No	No criteria
73	Chrysene	0.049	<0.02		No	MEC<C
74	Dibenzo(a,h)anthracene	0.049	E 0.014		No	MEC<C
75	1,2-Dichlorobenzene	600	<0.5		No	MEC<C
76	1,3-Dichlorobenzene	2,600	<0.5		No	MEC<C
77	1,4-Dichlorobenzene	5	0.5		No	MEC<C
78	3-3'-Dichlorobenzidine	0.077	<5		No	MEC<C
79	Diethyl Phthalate	120,000	E0.37		No	MEC<C
80	Dimethyl Phthalate	2,900,000	<2		No	MEC<C
81	Di-n-Butyl Phthalate	12,000	E0.18		No	MEC<C
82	2-4-Dinitrotoluene	9.1	<5		No	MEC<C
83	2-6-Dinitrotoluene	No criteria	<5		No	No criteria
84	Di-n-Octyl Phthalate	No criteria	<10		No	No criteria
85	1,2-Diphenylhydrazine	0.54	<1		No	MEC<C
86	Fluoranthene	370	<1		No	MEC<C
87	Fluorene	14,000	<10		No	MEC<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L (upstream station not available)	RPA Result - Need Limitation?	Reason
88	Hexachlorobenzene	0.00077	<1		No	MEC<C
89	Hexachlorobutadiene	50	<1		No	MEC<C
90	Hexachlorocyclopenta-diene	17,000	<5		No	MEC<C
91	Hexachloroethane	8.9	<1		No	MEC<C
92	Indeno(1,2,3-cd)Pyrene	0.049	0.021		No	MEC<C
93	Isophorone	600	<1		No	MEC<C
94	Naphthalene	No criteria	<1		No	No criteria
95	Nitrobenzene	1,900	<1		No	MEC<C
96	N-Nitrosodimethylamine	8.1	0.34		No	MEC<C
97	N-Nitrosodi-n-Propylamine	1.4	<5		No	MEC<C
98	N-Nitrosodiphenylamine	16	<1		No	MEC<C
99	Phenanthrene	No criteria	<5		No	No criteria
100	Pyrene	11,000	<10		No	MEC<C
101	1,2,4-Trichlorobenzene	No criteria	<5		No	No criteria
102	Aldrin	0.00014	<0.005		No	MEC<C
103	Alpha-BHC	0.013	<0.01		No	MEC<C
104	Beta-BHC	0.046	<0.005		No	MEC<C
105	Gamma-BHC (aka Lindane)	0.063	E 0.006		No	MEC<C
106	delta-BHC	No criteria	<0.005		No	No criteria
107	Chlordane	0.00059	<0.05		No	MEC<C
108	4,4'-DDT	0.00059	<0.01		No	MEC<C
109	4,4'-DDE	0.00059	<0.01		No	MEC<C
110	4,4'-DDD	0.00084	<0.01		No	MEC<C
111	Dieldrin	0.00014	<0.01		No	MEC<C
112	Alpha-Endosulfan	0.056	<0.01		No	MEC<C
113	Beta-Endosulfan	0.056	<0.01		No	MEC<C
114	Endosulfan Sulfate	240	<0.01		No	MEC<C
115	Endrin	0.036	<0.01		No	MEC<C
116	Endrin Aldehyde	0.81	<0.01		No	MEC<C
117	Heptachlor	0.00021	<0.01		No	MEC<C
118	Heptachlor Epoxide	0.00011	<0.01		No	MEC<C
119	PCB 1016	0.00017	<0. 1		No	MEC<C
120	PCB 1221	0.00017	<0. 5		No	MEC<C
121	PCB 1232	0.00017	<0. 3		No	MEC<C
122	PCB 1242	0.00017	<0. 1		No	MEC<C
123	PCB 1248	0.00017	<0. 1		No	MEC<C
124	PCB 1254	0.00017	<0. 05		No	MEC<C
125	PCB 1260	0.00017	<0. 1		No	MEC<C
126	Toxaphene	0.00075	<0.5		No	MEC<C
	Iron	300	66.4		No	MEC<C
	Total Trihalomethanes	80	149.7		YES	MEC>C

4. **WQBEL Calculations**

a. **Calculation Options**. Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include:

i. Use WLA from applicable TMDL
ii. Use a steady-state model to derive MDELs and AMELs.
iii. Where sufficient data exist, use a dynamic model which has been approved by the State Water Board.

b. **San Gabriel River Metals**. Section 7 - Implementation Recommendations of the EPA-established metals TMDLs for San Gabriel River and Impaired Tributaries describes the implementation procedures and regulatory mechanisms that could be used to provide reasonable assurances that water quality standards will be met. For POTWs NPDES permits, USEPA suggest that permit writers could translate waste load allocations (WLAs) into effluent limits by applying the SIP procedures or other applicable engineering practices authorized under federal regulations. According to Table 2-9, Summary of dry-weather and wet-weather impairments, San Gabriel River Reach 2 has only wet-weather impairment for lead. There is reasonable potential for lead because a TMDL WLA has been developed (Tier 3) for Reach 2. Therefore, an effluent limitation has been prescribed for lead. In this permit, the metals criteria for lead were calculated using the TMDL hardness of 175 mg/L. The effluent limit calculation is consistent with the San Gabriel River Metals TMDL implementation procedure. The final effluent limitations for lead shall apply to wet-weather conditions only. Wet-weather is defined as the condition in the San Gabriel River when maximum daily flow at the United States Geological Survey gauging station 11087020 is equal to or greater than 260 cubic feet per second. The *San Gabriel River Metals TMDL* staff report, on page 17, indicated that the United States Geological Survey (USGS) gauge station located just above Whittier Narrows Dam (station 11085000) was the best location to assess wet-weather flow conditions. However, USGS station 1108500 is actually located below Santa Fe Dam in Baldwin Park, not above it. The USGS flow gauging station located above Whittier Narrows Dam in Reach 3 is station 11087020, as depicted on Figure 3 of the *San Gabriel River Metals TMDL* staff report. Therefore, for flow monitoring purposes, and for determination of the wet-weather flow condition, USGS station 11087020 will be used.

Dry weather allocations are assigned to sources in San Jose Creek Reach 1 and Reach 2 to meet the selenium TMDL in San Jose Creek Reach 1. Concentration-based waste load allocations equal to the dry-weather selenium target for San Jose Creek Reach 1 (Table 3-1 of the MetalsTMDL staff report) are assigned to POTWs and other non-storm water point sources. There is reasonable potential (Tier 3) for Selenium because a TMDL WLA has been developed. Therefore, an effluent limitation has been prescribed for selenium. The effluent limit calculation is consistent with the San Gabriel River Metals TMDL implementation procedure. The final effluent limitations for selenium shall apply to dry-weather conditions only. Dry-weather is defined as the condition in the San Gabriel River when maximum daily flow at the USGS gauging station 11087020 is less than 260 cubic feet per second.

c. **SIP Calculation Procedure**. Section 1.4 of the SIP requires the step-by-step procedure to "adjust" or convert CTR numeric criteria into AMELs and MDELs, for toxics.

Step 3 of section 1.4 of the SIP (starting on page 6) lists the statistical equations that adjust CTR criteria for effluent variability.

Step 5 of section 1.4 of the SIP (starting on page 8) lists the statistical equations that adjust CTR criteria for averaging periods and exceedance frequencies of the criteria/objectives. This section also reads, "For this method only, maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations."

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. RPA results showed that there was no reasonable potential for the Pomona WRP to exceed the CTR criteria .

d. **Impracticability Analysis**

Federal NPDES regulations contained in 40 CFR § 122.45 continuous dischargers, states that all permit limitations, standards, and prohibitions, including those to achieve water quality standards, shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all dischargers other than POTWs.

As stated by USEPA in its long standing guidance for developing WQBELs average alone limitations are not practical for limiting acute, chronic, and human health toxic effects.

For example, a POTW sampling for a toxicant to evaluate compliance with a 7-day average limitation could fully comply with this average limit, but still be discharging toxic effluent on one, two, three, or up to four of these seven days and not be meeting 1-hour average acute criteria or 4-day average chronic criteria. For these reason, USEPA recommends daily maximum and 30-day average limits for regulating toxics in all NPDES discharges. For the purposes of protecting the acute effects of discharges containing toxicants (CTR human health for the ingestion of fish), daily maximum limitations have been established in this NPDES permit for mercury because it is considered to be a carcinogen, endocrine disruptor, and is bioaccumulative.

A 7-day average alone would not protect one, two, three, or four days of discharging pollutants in excess of the acute and chronic criteria. Fish exposed to these endocrine disrupting chemicals will be passed on to the human consumer. Endocrine disrupters alter hormonal functions by several means. These substances can:

- mimic or partly mimic the sex steroid hormones estrogens and androgens (the male sex hormone) by binding to hormone receptors or influencing cell signaling pathways.
- block, prevent and alter hormonal binding to hormone receptors or influencing cell signaling pathways.

- alter production and breakdown of natural hormones.
- modify the making and function of hormone receptors.

e. **Mass-based limits**. 40 CFR § 122.45(f)(1) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR § 122.45(f)(2) allows the permit writer, at its discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents.

Table F-9. Summary of WQBELs for Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.
Ammonia Nitrogen (ELS present)	mg/L	3.2[6]	--	6.6[6]	--	--
	lbs/day	400[7]	--	826[7]	--	--
Ammonia Nitrogen (ELS absent)	mg/L	4.1[8]	--	8.4[8]	--	--
	lbs/day	513[9]	--	1051[9]	--	--
[Nitrate + Nitrite] (as N)	mg/L	8[10]	--	--	--	--
	lbs/day	1000	--	--	--	--
Nitrite (as N)	mg/L	1	--	--	--	--
	lbs/day	125	--	--	--	--

6 This seasonal final effluent limitation is derived from the site specific objective for ammonia nitrogen, when early life stage fish are **present (ELS present)**, contained in Regional Board Resolution No. 2007-005 and translated according to the procedures contained in the Implementation Section of Resolution No. 2002-011. This limitation applies from April 1 through September 30.

7 This final effluent limitation is the mass emission rate for ammonia nitrogen for the corresponding ELS present concentration-based effluent limitation, which applies from April 1 through September 30.

8 This seasonal final effluent limitation is derived from the site specific objective for ammonia nitrogen, when early life stage fish are **absent (ELS absent)**, contained in Regional Board Resolution No. 2007-005 and translated according to the procedures contained in the Implementation Section of Resolution No. 2002-011. This limitation applies from October 1 through March 31.

9 This final effluent limitation is the mass emission rate for ammonia nitrogen for the corresponding ELS absent concentration-based effluent limitation, which applies from October 1 through March 31.

10 This limitation is derived from the Basin Plan water quality objective.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.
Lead [Wet weather]	µg/L	--	--	166[11]	--	--
Selenium [Dry weather]	µg/L	4.7[12]	--	6.2[12]	--	--
Bis(2-ethylhexyl)phthalate	µg/L	4[13]	--	--	--	--
	lbs/day	0.5	--	--	--	--
Total trihalomethanes	µg/L	80[13]	--	--	--	--
	lbs/day	10	--	--	--	--
Chronic Toxicity[14]	Pass or Fail, %Effect (TST)	Pass[15]	--	Pass or %Effect <50	--	--

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) testing 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 short or a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. Because of the nature of industrial discharges into the POTW sewershed, it is possible that other toxic constituents could be present in the Pomona WRP effluent, or could have synergistic or additive effects.

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11 This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into effluent limitations by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

12 This final effluent limitation for selenium is derived from the dry weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the dry weather waste load allocation was translated into effluent limitations by applying the SIP procedures. This effluent limitation applies only during dry weather, when the flow in the San Gabriel River is less than 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

13 This limitation is derived from the Basin Plan water quality objective.

14 The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail". The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail".

15 This is a Median Monthly Effluent Limitation.

Two exceedances of the 1.0 TUc monthly median accelerated testing trigger were observed in the final effluent from January 1, 2009 to April 2014. Eighteen acute toxicity testing results from the same period did not exceed any acute toxicity requirements. Regional Water Board staff determined that, pursuant to the SIP, reasonable potential exists for chronic toxicity. As such, the permit contains effluent limitations for toxicity.

The 2009 permit contained final effluent limitations for both acute toxicity and chronic toxicity. But the 2014 permit only contains a final effluent limitation for chronic toxicity, expressed as a monthly median and a daily maximum, since chronic toxicity is a more stringent requirement than acute toxicity. Removal of the numeric acute toxicity effluent limit from the 2009 permit does not constitute backsliding because of this.

For this permit, chronic toxicity in the discharge is evaluated using a monthly median effluent limitation and a maximum daily effluent limitation that utilizes USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach. The chronic toxicity effluent limitation is expressed as "Pass" or "Fail" for the median monthly summary results and "Pass" or "Fail" and "Percent Effect" for each of the individual chronic toxicity result.

In January 2010, USEPA published a guidance document titled, "EPA Regions 8, 9 and 10 Toxicity Training Tool," which among other things discusses permit limit expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR 122.45(d) require that all permit limits be expressed, unless impracticable, as both a Maximum Daily Limitation (MDL) and an Average Monthly Limitation (AML) for all dischargers other than POTWs, and as an average weekly limit (AWL) and AML for POTWs. Following Section 5.2.3 of the Technical Support Document (TSD), the use of an AWL is not appropriate for WET. In lieu of an AWL for POTWs, EPA recommends establishing an MDL for toxic pollutants and pollutants in water quality permitting, including WET. This is appropriate for two reasons. The basis for the average weekly requirement for POTWs derives from secondary treatment regulations and is not related to the requirement to assure achievement of WQS. Moreover, an average weekly requirement comprising up to seven daily samples could average out daily peak toxic concentrations for WET and therefore, the discharge's potential for causing acute and chronic effects would be missed. It is impracticable to use an AWL, because short-term spikes of toxicity levels that would be permissible under the 7-day average scheme would not be adequately protective of all beneficial uses. The MDL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. The AML is the highest allowable value for the average of daily discharges obtained over a calendar month. For WET, this is the average of individual WET test results for that calendar month. However, in cases where a chronic mixing zone is not authorized, EPA Regions 9 and 10 continue to recommend that the AML for chronic WET should be expressed as a median monthly limit (MML).

Later in June 2010, USEPA published another guidance document titled, Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater*

Organisms (EPA/821/R-02/013, 2002), recognizes that, "the statistical methods in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The effluent limitations for chronic toxicity were established because effluent data showed that there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standard. The Permittee's past compliance summary is discussed in greater detail in section II.D. of this Fact Sheet.

In the past, the State Water Board reviewed the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential with respect to SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 (Los Coyotes Order) deferring the issue of numeric chronic toxicity effluent limitations until a subsequent Phase of the SIP is adopted. In the meantime, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1.0 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. The Pomona WRP 2009 permit contained a narrative chronic toxicity limitation consistent with the direction received by the State Water Board.

However, many facts have changed since the State Water Board adopted the Los Coyotes Order in 2003. USEPA published two new guidance documents with respect to chronic toxicity testing; the Los Angeles Regional Water Board adopted NPDES permits for industrial facilities incorporating TST-based limits for chronic toxicity and has adopted numeric chronic toxicity limits for industrial facilities and POTWs with TMDL WLAs of 1 TUc; and the Santa Ana Regional Water Board adopted an NPDES permit for a POTW incorporating TST-based limits for chronic toxicity. In addition to these and other factual developments, the State Water Board has not adopted a revised policy that addresses chronic toxicity effluent limitations in NPDES permits for inland discharges, as anticipated by the Los Coyotes Order. Because the Los Coyotes Order explicitly "declined to make a determination ... regarding the propriety of the final numeric effluent limitations for chronic toxicity...," (Los Coyotes Order, p. 9) and because of the differing facts before the Regional Water Board in 2014 as compared to the facts that were the basis for the Los Coyotes Order in 2003, the Regional Water Board concludes that the Los Coyotes Order does not require inclusion of narrative rather than numeric effluent limitations for chronic toxicity. Further, the Regional Water Board finds that numeric effluent limitations for chronic toxicity are necessary, feasible, and appropriate because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective. The Pomona WRP 2014 permit contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirements contained in the 2014 Order shall be determined in accordance to sections VII. I and J of the WDR.

Never the less, this Order contains a reopener to allow the Regional Water Board to modify the permit, if necessary, to make it consistent with any new policy, law, or regulation.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are as stringent as those in the prior permit, Order No. R4-2009-0076 with the exception of the limitations for ammonia nitrogen.

Section 402(o)(2) of the Clean Water Act provides statutory exceptions to the general prohibition of backsliding contained in CWA section 402(o)(1). One of these exception allows backsliding if "information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance" (Section (B)(i)). The site specific objectives (SSOs) for ammonia nitrogen were based on new information and therefore the Pomona WRP may meet the backsliding exception under CWA section 402(o)(2).

The ammonia nitrogen final effluent limitations in this Order have been relaxed as compared to the prior order as a result of the new coefficient of variation and recent pH and temperature data used in the effluent calculations.

The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitation for ammonia as discussed above. None of the effluent limitations contained in Order No. R4-2009-0076 were removed because the pollutants continued to show reasonable potential to exceed the applicable water quality criteria. This relaxation of the ammonia effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations. Applicable exceptions to the anti-backsliding requirements justifying removal of certain effluent limitations include a) material and substantial alterations or additions to the permitted facility occurred after permit issuance and b) new information obtained after permit issuance.

Under CWA sections 403(o)(1)/303(d)(4)(B) for waters in attainment, relaxation is consistent with the State's antidegradation policy because the discharge is in compliance with existing water quality objectives for ammonia nitrogen in South Fork San Jose Creek.

2. Antidegradation Policies

40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution No. 68-16, *Statement of Policy with Respect to Maintaining the Quality of the Waters of the State*. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR § 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR § 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The

Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

The San Gabriel River is included on the 303(d) list for many pollutants as described above in section II.D of this Fact Sheet, and therefore is not a high quality water with respect to these constituents. The Regional Water Board is implementing the San Gabriel River Metals TMDL adopted by USEPA so that water quality standards in the receiving waters can be attained at a future date for: lead and selenium. The NPDES permit contains concentration-based and mass-based limits for lead and selenium to protect aquatic life beneficial use from the point of discharge and downstream of the discharge. The permit also contains concentration-based limitations based on the Basin Plan to protect human health and recreational uses in the receiving water. In addition, JOS is implementing plans to maximize the recycling of its high-quality tertiary-treated effluent. The renewal of the NPDES permit will not lower surface water quality because the conditions in the Order are at least as stringent as the prior Order and because the Pomona WRP facility is reducing its flow to surface waters. No changes to the plant's treatment facilities or processes are planned that would impact the concentrations of these constituents in the discharged effluent. Monitoring for these constituents in the effluent and receiving waters continue to be required under this Order. The Regional Water Board may modify the terms of this Order to prevent degradation of high quality waters based on any change in the concentration of these constituents in the effluent or receiving water that indicates that a degradation of high quality waters may occur. The treatment required by this Order is the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the State will be maintained. Therefore, discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR § 131.12 and State Water Board Resolution No. 68-16.

3. **Stringency of Requirements for Individual Pollutants**

This Order contains both TBELs and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS and pH 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. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards.

Water quality-based effluent limitations have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs 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 CFR § 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs 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 CFR § 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 and the applicable water quality standards for purposes of the CWA.

Table F-10. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
$BOD_5 20^oC$	mg/L	20	30	45			Tertiary treatment technology
	lbs/day[16]	2500	3800	5600			
Total Suspended Solids (TSS)	mg/L	15	40	45			Tertiary treatment technology
	lbs/day[16]	1900	5000	5600			
pH	standard units	--	--	--	6.5	8.5	Basin Plan
Removal Efficiency for BOD and TSS	%	85	--	--			40 CFR 133
Oil and Grease	mg/L	10	--	15			Basin Plan Narrative & BPJ
	lbs/day[16]	1300	--	1900			
Settleable Solids	ml/L	0.1	--	0.3			Basin Plan Narrative & BPJ
Total Residual Chlorine	mg/L	--	--	0.1			Basin Plan
Total dissolved solids	mg/L	750					Basin Plan
	lbs/day[16]	93,800	--	--			
Sulfate	mg/L	300	--	--			Basin Plan
	mg/L	38,000	--	--			
Chloride	mg/L	180	--	--			Basin Plan
	lbs/day[16]	23,000	--	--			
Boron	mg/L	1.0	--	--			Basin Plan
	lbs/day[16]	125	--	--			
MBAS	mg/L	0.5	--	--			Basin Plan
	lbs/day[16]	60	--	--			
Ammonia Nitrogen (ELS Present)	mg/L	3.2	--	6.6			Basin Plan
	lbs/day[16]	400	--	826			
Ammonia Nitrogen (ELS Absent)	mg/L	4.1		8.4			Basin Plan
	lbs/day[16]	513		1051			
Nitrate + Nitrite (as N)	mg/L	8	--	--			Basin Plan
	lbs/day[16]	1000	--	--			
Nitrite (as N)	mg/L	1	--	--			Basin Plan
	lbs/day[16]	125	--	--			
Lead (wet weather)	µg/L	--	--	166			TMDL WLA

[16] The mass emission rates are based on the plant design flow rate of 15.0 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
Selenium (dry weather)	µg/L	4.7	--	6.2			TMDL WLA
Bis(2-ethylhexyl) Phthalate	µg/L	4.0	--	--			Basin Plan
	lbs/day[16]	0.5	--	--			
Total trihalomethanes (TTHMs)	µg/L	80	--	--			Basin Plan
	lbs/day[16]	10	--	-			
Chronic Toxicity[17]	Pass or Fail, %Effect	Pass[18]	--	Pass or %Effect <50			TST & USEPA Guidance

E. Interim Effluent Limitations

No interim limits are included in this NPDES Order.

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications

The Discharger currently recycles a large portion of its tertiary-treated effluent mainly for landscape irrigation, but also for agricultural irrigation, concrete mixing, cooling tower supply, fire protection, and dust control. The production, distribution, and reuse of recycled water for direct, non-potable applications are presently regulated under Water Reclamation Requirements (WRR) Order No. 81-34, adopted by this Board on July 27, 1981. Pursuant to California Water Code section 13523, these WRRs were reviewed in 1997 and were readopted without change in Board Order No. 97-072, adopted on May 12, 1997. The use of recycled water varies from month to month depending on the demand. During the 2012-13 fiscal year 1.515 MGD (1,697 acre-feet per year (AFY)) were used by the Pomona Water Department, 1.374 MGD (1,540 AFY) by the Walnut Valley Water District, and 0.378 MGD (424 AFY) by the Spadra Landfill and Cal Poly Pomona campus. Approximately 41% (40.05 million gallons per year) of the treated effluent was recycled from the Pomona WRP for the uses described above.

The Discharger recycles almost all of the remaining effluent for groundwater recharge at the Los Angeles County Department of Public Works' San Gabriel River Spreading Grounds and the Rio Hondo Spreading Grounds, under a separate permit (Regional Water Board Order No. 91-100, adopted September 9, 1991, CI-5728). This order was amended on April 10, 2014, by Order No. R4-2009-0048-A-01. JOS is promoting additional reuse options for the treated effluent. During the 2012-13 fiscal year, 4.418 MGD (4,950 AFY) were recycled from the Pomona WRP for groundwater recharge purposes.

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17 The median monthly effluent limitation (MMEL) shall be reported as "Pass" or "Fail". The maximum daily effluent limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect". The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in "Fail".

18 This is a Median Monthly Effluent Limitation.

The total reuse during the 2012-13 fiscal year was 7.685 MGD (8,611 AFY), or 87.6% of total production from the Pomona WRP.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations are based on WQOs contained in the Basin Plan and are a required part of this Order.

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. Sections of South Fork San Jose Creek and San Gabriel River, near the Pomona WRP discharge points, are designated as GWR beneficial use. Surface water from South Fork San Jose Creek percolates into the San Gabriel Valley Groundwater Basin with MUN beneficial use specified in the Basin Plan. Since groundwater from the Basin is used to provide drinking water to the community, the groundwater aquifers must be protected.

The issue of using MCLs as the basis for establishing final effluent limitations in an NPDES permit, to protect the GWR beneficial use of surface waters and the MUN beneficial use of the groundwater basins, has been addressed by the State Board in its WQO No. 2003-0009, in the *Matter of the Petitions of County Sanitation District No. 2 of Los Angeles and Bill Robinson for Review of Waste Discharge Requirements Order No. R4-2002-0142 and Time Schedule Order No. R4-2002-0143 for the Whittier Narrows Water Reclamation Plant*. The groundwater recharge (GWR) beneficial use is premised on a hydrologic connection between surface waters and groundwater, where the groundwater in this case is designated with an existing MUN beneficial use. Since there are no criteria or objectives specific to the GWR beneficial use, the Los Angeles Regional Water Board's Basin Plan, staff based effluent limitations for the GWR use on the groundwater MUN objectives. By doing so, the Regional Water Board ensures that the use of surface waters to recharge groundwater used as an existing drinking water source is protected. The fact that there are no criteria or objectives specific to the GWR beneficial use does not deprive the Regional Water Board the ability to protect the use. The CWA contemplates enforcement of both beneficial uses as well as criteria in state water quality standards. In California, an NPDES permit also serves as waste discharge requirements under state law.

Reasonable potential analysis was conducted using new data. The analysis showed that the discharge had reasonable potential to exceed the primary MCLs for bis(2-ethylhexyl)phthalate and Total trihalomethanes, therefore, a limit is included in the permit for both pollutants. The effluent limitations are expressed as a monthly average rather than a daily maximum, because it was assumed that the groundwater basins have assimilative capacity for these pollutants. The monthly averaging period is justified because these pollutants are not expected to produce acute effects. Since the discharge has reasonable potential to exceed the MCLs, end-of-pipe final effluent limitations for bis(2-ethylhexyl)phthalate and Total trihalomethanes are warranted.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR § 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR § 122.42, are provided in Attachment D. The Permittee must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Parts 122.41(a)(1) and (b) through (n) of 40 CFR 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. Part 123.25(a)(12) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR § 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR § 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

B. Special Provisions

1. Reopener Provisions

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

2. Special Studies and Additional Monitoring Requirements

a. **Constituent of Emerging Concern (CEC)**. In recent years, the Los Angeles Regional Water Board has incorporated monitoring of a select group of man-made chemicals, particularly pesticides, pharmaceuticals and personal care products, known collectively as CECs, into permits issued to POTWs to better understand the propensity, persistence and effects of CECs in our environment. Recently adopted permits in this region contain requirements for CEC effluent monitoring and submittal of a work plan identifying the CECs to be monitored in the effluent, sample type, sampling frequency and sampling methodology. Based on feedback we have received from permittees and our review of the results of a recent CEC-related study by the Southern California Coastal Water Research Project (SCCWRP) and the State Water Board, we have modified our CEC monitoring program to respond to feedback while proceeding to fill identified data gaps without overly burdening any one permittee.

The Permittee has completed annual CEC monitoring for two years. The Regional Water Board has determined that two years is an appropriate time period to determine those CECs that are present in POTW effluent. Analysis under this section is for monitoring purposes only. Analytical results obtained for this study will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136

b. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on the State Water Board Resolution No. 68-16, which requires the Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state. Prior to expanding the plant capacity, the Permittee must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Permittee to clarify that it has increased plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Permittee to report specific time schedules for the plants projects. This provision requires the Permittee to submit report to the Regional Water Board for approval.

c. **Operations Plan for Proposed Expansion.** This provision is based on section 13385(j)(1)(D) of the CWC and allows a time period not to exceed 90 days in which the Permittee may adjust and test the treatment system(s). Prior to start-up of an expansion project, this provision requires the Permittee to submit an Operations Plan describing the actions the Permittee will take during the period of adjusting and testing to prevent violations.

d. **Treatment Plant Capacity.** The treatment plant capacity study required by section VI.C.2.c of this Order shall serve as an indicator for the Regional Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.

3. **Best Management Practices and Pollution Prevention**

a. **Pollutant Minimization Program (PMP).** This provision is based on the requirements of section 2.4.5 of the SIP.

4. **Construction, Operation, and Maintenance Specifications**

This provision is based on the requirements of 40 CFR § 122.41(e) and the previous Order.

5. **Special Provisions for Municipal Facilities (POTWs Only)**

a. **Biosolids Requirements.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Permittee to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Permittee is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.

b. **Pretreatment Requirements.** This permit contains pretreatment requirements consistent with applicable effluent limitations, national standards of performance, and toxic and performance effluent standards established pursuant to sections 208(b), 301, 302, 303(d), 304, 306, 307, 403, 404, 405, and 501 of the CWA, and amendments thereto. This permit contains requirements for the implementation of an effective pretreatment program pursuant to section 307 of the CWA; 40 CFR 35 and 403; and/or Title 23, CCR section 2233.

c. **Spill Reporting Requirements.** This Order established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (SSO WDR) on May 2, 2006. The Monitoring and Reporting Requirements for the SSO WDR were amended by Water Quality Order WQ 2008-0002-EXEC on February 20, 2008. The SSO WDR requires public agencies that own or operate sanitary sewer systems with greater

than one mile of pipes or sewer lines to enroll for coverage under the SSO WDR. The SSO WDR requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the SSO WDR contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Permittee's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section VI.C.5. For instance, the 24-hour reporting requirements in this Order are not included in the SSO WDR. The Permittee must comply with both the SSO WDR and this Order. The Permittee and public agencies that are discharging wastewater into the Facility were required to obtain enrollment for regulation under the SSO WDR by December 1, 2006.

In the past, the Los Angeles Regional Water Board has experienced loss of recreational use in coastal beaches and in recreational areas as a result of major sewage spills. The SSO requirements are intended to prevent or minimize impacts to receiving waters as a result of spills.

6. **Other Special Provisions (Not Applicable)**

7. **Compliance Schedules (Not Applicable)**

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 308(a) of the federal Clean Water Act and sections 122.41(h), (j)-(l), 122,44(i), and 122.48 of Title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP 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

Influent monitoring is required:

- To determine compliance with the permit conditions for BOD_5 20°C and suspended solids removal rates;
- To assess treatment plant performance;
- To assess the effectiveness of the Pretreatment Program; and,
- As a requirement of the PMP

B. Effluent Monitoring

The Permittee is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP Attachment E. This provision requires compliance with the MRP, and is based on 40 CFR parts 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including this Order) issued by the Regional Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board policies. The MRP also contains

sampling program specific for the Permittee's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with section 1.3 of the SIP, a periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the Facility, will be required as shown on the MRP and as required in the SIP. Semi-annual monitoring for priority pollutants in the effluent is required in accordance with the Pretreatment requirements.

Table F-11. Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2009 Permit)	Monitoring Frequency (2014 Permit)
Total waste flow	continuous	no change
Total residual chlorine	continuous	no change
Turbidity	continuous	no change
Temperature	weekly	no change
pH	weekly	no change
Settleable solids	weekly	no change
Total suspended solids	weekly	no change
Oil and grease	quarterly	no change
BOD	weekly	no change
Dissolved oxygen	monthly	no change
Total coliform	weekly	no change
Fecal Coliform	weekly	no change
E.coli	weekly	no change
Total Dissolved Solids	monthly	no change
Sulfate	monthly	no change
Chloride	monthly	no change
Boron	monthly	no change
MBAS	monthly	quarterly
CTAS	quarterly	no change
Ammonia nitrogen	monthly	no change
Nitrate + nitrite (as nitrogen)	monthly	no change
Nitrite nitrogen	monthly	no change
Organic N	monthly	no change
TKN	monthly	no change
Orthophosphate-P	--	quarterly
Total Hardness ($CaCO_3$)	monthly	no change
Chronic toxicity	monthly	no change
Bis(2-ethylhexyl)phthalate	monthly	no change
Total Nitrogen	monthly	no change
Total Phosphorus	--	quarterly
Iron	quarterly	no change
Fluoride	quarterly	semiannually
Antimony	quarterly	semiannually

Parameter	Monitoring Frequency (2009 Permit)	Monitoring Frequency (2014 Permit)
Arsenic	quarterly	no change
Beryllium	semiannually	no change
Cadmium	quarterly	no change
Chromium III	semiannually	no change
Chromium VI	semiannually	no change
Copper	quarterly	no change
Lead	monthly	no change
Mercury	semiannually	no change
Nickel	quarterly	no change
Selenium	monthly	no change
Silver	quarterly	no change
Thallium	semiannually	no change
Zinc	quarterly	no change
Cyanide	quarterly	no change
2,3,7,8-TCDD (Dioxin)	semiannually	no change
Bromoform	monthly	no change
Dibromochloromethane	monthly	no change
Chloroform	monthly	no change
Bromodichloromethane	monthly	no change
Tetrachloroethylene	semiannually	no change
1,4-dichlorobenzene	semiannually	no change
Alpha BHC	semiannually	no change
N-Nitrosodi-n-propylamine	semiannually	no change
Gamma-BHC (Lindane)	semiannually	no change
Chlordane	semiannually	no change
4,4'-DDT	semiannually	no change
4,4'- DDE	semiannually	no change
4,4'-DDD	semiannually	no change
Aldrin	semiannually	no change
Dieldrin	semiannually	no change
Endrin	semiannually	no change
Heptachlor epoxide	semiannually	no change
PCBs	semiannually	annually
Aroclor 1016	semiannually	annually
Aroclor 1221	semiannually	annually
Aroclor 1232	semiannually	annually
Aroclor 1242	semiannually	annually
Aroclor 1248	semiannually	annually
Aroclor 1254	semiannually	annually
Aroclor 1260	semiannually	annually
Toxaphene	semiannually	no change
Chlorpyrifos	semiannually	annually
Diazinon	semiannually	annually

Parameter	Monitoring Frequency (2009 Permit)	Monitoring Frequency (2014 Permit)
Total trihalomethanes[19]	monthly	no change
Perchlorate	semiannually	annually
1,4-Dioxane	semiannually	annually
1,2,3-Trichloropropane	annually	no change
Methyl-tert-butyl-ether (MTBE)	semiannually	annually
Remaining USEPA priority pollutant not listed on this Table	semiannually	semiannually

C. WET 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. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach, and is expressed as "Pass" or "Fail" for the median monthly summary results and "Pass" or "Fail" and "Percent Effect" for each individual chronic toxicity result. The chronic toxicity effluent limitations protect the narrative Basin Plan Water Quality Objective for chronic toxicity. The rationale for WET has been discussed extensively in section IV.C.5 of this Fact Sheet.

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water.

2. Groundwater – (Not Applicable)

E. Other Monitoring Requirements

1. Watershed Monitoring and Bioassessment Monitoring

The goals of the Watershed-wide Monitoring Program including the bioassessment monitoring for the South Fork San Jose Creek Watershed are to:

- Determine compliance with receiving water limits;
- Monitor trends in surface water quality;
- Ensure protection of beneficial uses;
- Provide data for modeling contaminants of concern;
- Characterize water quality including seasonal variation of surface waters within the watershed;
- Assess the health of the biological community; and,

[19] Total trihalomethanes shall mean the sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane.

- Determine mixing dynamics of effluent and receiving waters in the estuary.

VIII. Consideration of Need to Prevent Nuisance & California Water Code Section 13241 Factors.

Some of the provisions/requirements in this Order 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. As required by CWC section 13263, the Regional Water Board has considered the need to prevent nuisance and the factors listed in CWC section 13241 in establishing the state law provisions/requirements. The Regional Water Board finds, on balance, that the state law requirements in this Order are reasonably necessary to prevent nuisance and to protect beneficial uses identified in the Basin Plan, and the section 13241 factors are not sufficient to justify failing to protect those beneficial uses.

A. Need to prevent nuisance: The state law requirements in this Order are required to prevent pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the CWC. Many are also required in accordance with narrative water quality objectives in the Basin Plan. These state requirements include, but are not limited to, groundwater limitations, spill prevention plans, operator certification, sanitary sewer overflow reporting, and requirements for standby or emergency power.

B. Past, present, and probable future beneficial uses of water: Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region. Beneficial uses of water relevant to this Order are also identified above in Section III.C.1.

C. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto: The environmental characteristics are discussed in the Region's Watershed Management Initiative Chapter, as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available water, will be improved by compliance with the requirements of this Order. Additional information on the San Gabriel River Watershed is available at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/ws_sangabriel.shtml

D. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area: The beneficial uses of the waterbodies in the San Gabriel River Watershed can reasonably be achieved through the coordinate control of all factors that affect water quality in the area. TMDLs have been developed (as required by the Clean Water Act) for many of the impairments in the watershed. A number of Regional Water Board programs and actions are in place to address the water quality impairments in the watershed, including regulation of point source municipal and industrial discharges with appropriate NPDES permits and non-point source discharges such as irrigated agriculture. All of these regulatory programs control the discharge of pollutants to surface and ground waters to prevent nuisance and protect beneficial uses. These regulatory programs have resulted in watershed solutions and have improved water quality. Generally, improvements in the quality of the receiving waters impacted by the permittee's discharges can be achieved by reducing the volume of discharges to receiving waters (e.g., through increased recycling), reducing pollutant loads through source control/pollution prevention, including operational source control such as public education (e.g., disposal of pesticides, pharmaceuticals, and personal care products into the sewer) and product or materials elimination or substitution, and removing pollutants through treatment.

E. Economic considerations: The Permittee did not present any evidence regarding economic considerations related to this Order. However, the Regional Water Board has considered the economic impact of requiring certain provisions pursuant to state law. The additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan. Further, the loss of, or impacts to, beneficial uses would have a detrimental economic impact. Economic considerations related to costs of compliance are therefore not sufficient, in the Regional Water Board's determination, to justify failing to prevent nuisance and protect beneficial uses

F. Need for developing housing within the region: The Regional Water Board has no evidence regarding the need for developing housing within the region or how the Permittee's discharge will affect that need. The Regional Water Board, however, does not anticipate that these state law requirements will adversely impact the need for housing in the area. The region generally relies on imported water to meet many of its water resource needs. Imported water makes up a vast majority of the region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining amount. This Order helps address the need for housing by controlling pollutants in discharges, which will improve the quality of local surface and ground water, as well as water available for recycling and re-use. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development. A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary. Therefore, the potential for developing housing in the area will be facilitated by improved water quality.

G. Need to develop and use recycled water: The State Water Board's Recycled Water Policy requires the Regional Water Boards to encourage the use of recycled water. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent. Most of the effluent to be discharged under this order will be reused for beneficial purposes.

IX. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for Pomona WRP. 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 Permittee 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 the following: public notice in daily newspaper by the Daily Journal Corporation which published the information on September 16, 2014, in the *San Gabriel Valley Tribune*.

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. Comments where due either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order, or by email submitted to losangeles@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 October 10, 2014.

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:	November 6, 2014
Time:	9:00 a.m.
Location:	Metropolitan Water District of Southern California, Board Room 700 North Alameda Street Los Angeles, California

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

D. Reconsideration of Waste Discharge Requirements

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

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

For instructions on how to file a petition for review, see
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The ROWD, 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 Veronica Cuevas at (213) 576-6662.

ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

INFORMATION AND DATA ACQUISITION

A. Operations and performance review

1. NPDES permit requirements
   a. Effluent limitations
   b. Special conditions
   c. Monitoring data and compliance history
2. POTW design criteria
   a. Hydraulic loading capacities
   b. Pollutant loading capacities
   c. Biodegradation kinetics calculations/assumptions
3. Influent and effluent conventional pollutant data
   a. Biochemical oxygen demand (BOD5)
   b. Chemical oxygen demand (COD)
   c. Suspended solids (SS)
   d. Ammonia
   e. Residual chlorine
   f. pH
4. Process control data
   a. Primary sedimentation - hydraulic loading capacity and BOD and SS removal
   b. Activated sludge - Food-to-microorganism (F/M) ratio, mean cell residence time (MCRT), mixed liquor suspended solids (MLSS), sludge yield, and BOD and COD removal
   c. Secondary clarification - hydraulic and solids loading capacity, sludge volume index and sludge blanket depth
5. Operations information
   a. Operating logs
   b. Standard operating procedures
   c. Operations and maintenance practices
6. Process sidestream characterization data
   a. Sludge processing sidestreams
   b. Tertiary filter backwash
   c. Cooling water
7. Combined sewer overflow (CSO) bypass data
   a. Frequency

b. Volume

8. Chemical coagulant usage for wastewater treatment and sludge processing
   a. Polymer
   b. Ferric chloride
   c. Alum

B. POTW influent and effluent characterization data

1. Toxicity
2. Priority pollutants
3. Hazardous pollutants
4. SARA 313 pollutants,
5. Other chemical-specific monitoring results

C. Sewage residuals (raw, digested, thickened and dewatered sludge and incinerator ash) characterization data

1. EP toxicity
2. Toxicity Characteristic Leaching Procedure (TCLP)
3. Chemical analysis

D. Industrial waste survey (IWS)

1. Information on IUs with categorical standards or local limits and other significant non-categorical IUs
2. Number of IUs
3. Discharge flow
4. Standard Industrial Classification (SIC) code
5. Wastewater flow
   a. Types and concentrations of pollutants in the discharge
   b. Products manufactured
6. Description of pretreatment facilities and operating practices
7. Annual pretreatment report
8. Schematic of sewer collection system

9. POTW monitoring data
    a. Discharge characterization data
    b. Spill prevention and control procedures
    c. Hazardous waste generation
10. IU self-monitoring data
    a. Description of operations
    b. Flow measurements
    c. Discharge characterization data
    d. Notice of sludge loading
    e. Compliance schedule (if out of compliance)
11. Technically based local limits compliance reports
12. Waste hauler monitoring data manifests
13. Evidence of POTW treatment interferences (i.e., biological process inhibition

ATTACHMENT H – PRETREATMENT REPORTING REQUIREMENTS

The Joint Outfall System (Permittee or District) is required to submit annual Pretreatment Program Compliance Report (Report) to the Regional Water Board and United States Environmental Protection Agency, Region 9 (USEPA). This Attachment outlines the minimum reporting requirements of the Report. If there is any conflict between requirements stated in this attachment and provisions stated in the Waste Discharge Requirements (WDR), those contained in the WDR will prevail.

A. Pretreatment Requirements

1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403, including any subsequent regulatory revisions to part 403. Where part 403 or subsequent revision places mandatory actions upon the Permittee as Control Authority but does not specify a timetable for completion of the actions, the Permittee shall complete the required actions within six months from the issuance date of this permit or the effective date of the part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines and other remedies by the USEPA or other appropriate parties, as provided in the Act. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the act.

2. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Permittee shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.

3. The Permittee shall perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:

   a. Implement the necessary legal authorities as provided in 40 CFR § 403.8(f)(1);

   b. Enforce the pretreatment requirements under 40 CFR parts 403.5 and 403.6;

   c. Implement the programmatic functions as provided in 40 CFR § 403.8(f)(2); and

   d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR § 403.8(f)(3).

4. The Permittee shall submit annually a report to USEPA Pacific Southwest Region, and the State describing its pretreatment activities over the previous year. In the event the District is not in compliance with any conditions or requirements of this permit, then the District shall also include the reasons for noncompliance and state how and when the District shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on April 15 of each year. The report shall contain, but not be limited to, the following information:

   a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the publicly-owned treatment works (POTW) influent and

effluent for those pollutants USEPA has identified under section 307(a) of the Act which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. The District is not required to sample and analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this permit. The District shall also provide any influent or effluent monitoring data for nonpriority pollutants which the District believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR part 136;

b. A discussion of Upset, Interference or Pass Through incidents, if any, at the treatment plant which the District knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through or interference;

c. An updated list of the District's significant industrial users (SIUs) including their names and addresses, and a list of deletions, additions and SIU name changes keyed to the previously submitted list. The District shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations;

d. The District shall characterize the compliance status of each SIU by providing a list or table which includes the following information:

   i. Name of the SIU;
   ii. Category, if subject to federal categorical standards;
   iii. The type of wastewater treatment or control processes in place;
   iv. The number of samples taken by the POTW during the year;
   v. The number of samples taken by the SIU during the year;
   vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
   vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;
   viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR § 403.8(f)(2)(viii) at any time during the year; and
   ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance.

e. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs;

f. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning

the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;

g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and

h. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR § 403.8(f)(2)(viii).

B. LOCAL LIMITS EVALUATION

1. In accordance with 40 CFR § 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR § 403.5(c)(1) within 180 days of issuance or reissuance of the Joint Water Pollution Control Plant (JWPCP) NPDES permit.

C. SIGNATORY REQUIREMENTS AND REPORT SUBMITTAL

1. Signatory Requirements.

   The annual report must be signed by a principal executive officer, ranking elected official or other duly authorized employee if such employee is responsible for the overall operation of the POTW. Any person signing these reports must make the following certification [40 CFR § 403.6(a)(2)(ii)]:

   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.

2. Report Submittal.

   The Annual Pretreatment Report shall be submitted electronically using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

   A copy of the Annual Report must be sent to USEPA electronically to the following address:

   R9Pretreatment@epa.gov.

EXHIBIT C

DOWNEY BRAND LLP
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Special Counsel for Petitioner
COUNTY SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY

BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of County Sanitation District No. 2 of Los Angeles County, California Association of Sanitation Agencies, Southern California Alliance of POTWs, and Bay Area Clean Water Agencies for Review of Action and Failure to Act by the California Regional Water Quality Control Board, Los Angeles Region, in Adopting Order Nos. R4-2014-0213 and R4-2014-0212 for the Pomona and Whittier Narrows Water Reclamation Plants.	SWRCB/OCC File A-_____ **DECLARATION OF PHILIP L. FRIESS IN SUPPORT OF THE DISTRICT'S PETITION FOR STAY**

I, Philip L. Friess, declare

1. I am the Department Head of the Technical Services Department for the Petitioner County Sanitation District No. 2 of Los Angeles County (the "District"). The District serves as the appointed agent for the Joint Outfall System and its member districts and filed the accompanying petition on behalf of the these districts. The Joint Outfall System is an integrated network of wastewater collection, treatment, and disposal facilities in Los Angeles County, which is constructed, maintained, and operated as one unit, and is jointly and proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995. These parties include County Sanitation Districts Nos. 1, 2, 3, 5, 8, 15, 16,17, 18, 19, 21, 22, 23, 28, 29, and 34 of Los Angeles County, and South Bay Cities Sanitation District of Los Angeles County. My business address is 1955 Workman Mill Road, Whittier, California 90601.

I have personal knowledge of the facts stated herein and, if necessary, could testify thereto.

2. I am responsible for the administration of the Districts' water reclamation and research programs and the wastewater quality and compliance programs. My duties include reviewing National Pollutant Discharge Elimination System ("NPDES") discharge permits, developing technical and policy comments on wastewater and recycling permits and regulations, state and federal legislation, and participating in other regulatory activities such as the adoption of Water Quality Control Plans, Total Maximum Daily Loads, and state and federal policies.

3. I have a Bachelor's Degree in Physics from the University of Maryland and a Master's Degree in Civil and Environmental Engineering from the University of Wisconsin-Madison. I am a registered civil engineer in the State of California and a Board Certified Environmental Engineer of the American Academy of Environmental Engineers and Scientists. I serve on the Board of Directors of the National Association of Clean Water Agencies ("NACWA"), as an Alternate Commissioner for the Southern California Coastal Water Research Project ("SCCWRP"), and as an Alternate Director for the Southern California Salinity Coalition and the Santa Monica Bay Restoration Commission. I have served on committees advising the State Water Resources Control Board ("State Board") on operator certification and collection system regulatory issues.

4. Essentially all of the recycled water produced at Whittier Narrows Water Reclamation Plant ("WRP") and the Pomona WRP, approximately 9,000 acre-feet per year ("AFY") from each WRP, is recycled and beneficially reused, primarily for groundwater recharge and landscape irrigation.

5. At the November 6, 2014 California Regional Water Quality Control Board, Los Angeles Region ("Regional Board") hearing concerning the NPDES permits for the Whittier Narrows WRP and the Pomona WRP ("Permits"), representatives from the District, the California Association of Sanitation Agencies ("CASA"), and the Southern California Alliance of POTWs ("SCAP") testified and expressed numerous concerns related to the numeric and daily effluent limitations for chronic toxicity; use of a two-concentration test design, precluding application of a concentration-response evaluation; using the Test of Significant Toxicity ("TST") statistical

procedure ("two-concentration TST method"); and continuing to assess violations during the accelerated monitoring and Toxicity Reduction Evaluation ("TRE")/Toxicity Identification Evaluation ("TIE") process. The District, SCAP, CASA, and BACWA had also provided extensive written comments on the tentative permits.

6. When the Regional Board adopted the Permits, the Regional Board failed to comply with binding precedential orders regarding the appropriate limitations for chronic toxicity, even though the Regional Board was aware of these orders. The Regional Board's failure to include a *narrative* effluent limit for chronic toxicity within the Permits not only ignored State Board precedent, but also ignored the Regional Board's prior practice of basing effluent limitations on chronic toxicity units ("TUc") and implemented as a trigger instead of as numeric effluent limitations. This failure by the Regional Board to follow applicable precedent and prior practice places the District in immediate jeopardy of violating the final effluent limitations for chronic toxicity set forth in the Permits, starting on January 1, 2015, the effective date of the Permits, due to either valid indications of toxicity or false indications of toxicity associated with test error.

7. It is unclear why the District is being burdened with these newly imposed, final effluent limitations since the WRPs have a very high level of treatment including nitrification/denitrification, and essentially no demonstrated potential to exceed the applicable narrative toxicity water quality objectives. In fact, the current monthly median chronic toxicity trigger of 1 TUc was exceeded only once between the two plants despite monthly testing at each WRP covering a total of 120 months between the two plants.

8. With the new "Pass/Fail" limits, implemented using the "two concentration TST method," which was not formally promulgated or approved under 40 Code of Federal Regulations ("C.F.R.") Part 136 as a standard method, the District is concerned that the false positive error rate has not been sufficiently addressed and will result in an unacceptable number of false violations. For example, using the No Observable Effect Concentration ("NOEC") hypothesis test, the United States Environmental Protection Agency ("USEPA") determined that failing to incorporate concentration-response evaluation nearly tripled the single test false positive error

rate from 5% to 14% (Federal Register, Volume 67, Number 223, November 19, 2002, page 69964). Assuming a similar 14% single test false positive error rate for the two-concentration TST method, a Permittee can expect to observe, on average, a monthly median exceedance (failing two out of three tests conducted in calendar month) twice during the five-year permit cycle at each WRP even if the final effluent was completely non-toxic.

9. The Regional Board's action to adopt these Permits will unnecessarily result in the District being out of compliance with the final effluent limitations for chronic toxicity set forth in the Permits and subject to citizen suits and discretionary penalties because the District is statistically expected to observe two monthly median violations at each WRP during the Permits' term even if the recycled water is not truly "toxic." This mischaracterization of recycled water as toxic also harms the District and the public by making recycled water less marketable and less likely to be used to replace potable water (even though potable water would fail these same tests an equivalent number of times). Discouraging recycling in a time of severe statewide drought is extremely harmful.

10. The District requests that the State Board stay the final numeric effluent limitations for chronic toxicity set forth in the Permits along with other related provisions. During the period in which the requested stay is in effect, the District will comply with the narrative toxicity limit in the current permits, using 1.0 TUc as a monthly median chronic toxicity trigger for accelerated monitoring, and potentially a TIE/TRE.

11. The general public will be substantially harmed if the State Board does not grant the District's stay request. If the requirements contained in the Permits are not immediately stayed, rate-payers in the District's Joint Outfall System service area, already under substantial strain from the recent recession and other utility cost increases, will be required to pay for unnecessary costs of additional accelerated monitoring, and for TIE/TREs that may not be needed because they are required to address false positive indications of toxicity. The forced implementation of costly new requirements that may ultimately prove unnecessary, or the commencement of enforcement actions based on such requirements, is a misdirection of scarce public resources, and should be avoided in order to prevent substantial harm to the public.

12. The adoption of effluent limitations in violation of federal and state law also causes substantial harm to the public who have a vested interest in the government complying with its own laws and regulations.

13. Other interested persons and the public will not suffer substantial harm if a stay of the requested chronic toxicity provisions are granted by the State Board. Granting a stay of the requested provisions will *not* operate to eliminate the requirements to monitor for chronic toxicity or to report those results. In addition, the issuance of a stay will not eliminate or alter any other requirements set forth in the Permits, including all other permit requirements related to toxicity.

14. The issuance of a stay will simply prevent unwarranted compliance jeopardy and unnecessary costs associated with the current requirements while these requirements are being administratively reviewed. The requested stay will also temporarily suspend administrative and civil and potential criminal liability for non-compliance with requirements that the District may not have the ability to consistently meet, and which may ultimately be removed from the Permits or modified.

15. The issuance of a stay by the State Board simply suspends the unnecessary imposition of onerous fines and penalties that will be passed on to the public, and susceptibility to third-party lawsuits pending review of the requested provisions, which may ultimately be removed from the Permits. Given that permits throughout the State have been written without these requirements for over 11 years, there is little to no chance of harm in granting a stay of the appealed provisions.

16. If a stay were issued, the Regional Board's regulatory oversight of the Whittier Narrows WRP and Pomona WRP will remain unchanged. All other effluent limitations, monitoring and reporting requirements, and substantive provisions contained in the Permits will remain in effect and be fully enforceable by the Regional Board. Further, the Permit will continue to require the District to operate its facility in the same manner as before the stay was issued, and will continue to require the District to monitor and submit detailed reports regarding the facility's performance and compliance with the limitations in the Permit.

17. During the period of the requested stay, the District will continue its existing,

protective level of treatment and recycled water production, and will continue to implement source control efforts and pretreatment requirements. The issuance of a stay will benefit the public by providing orderly resolution of the issues raised by the District in this Request for Stay as well as by the Petitioners in the Petition for Review.

18. Because numeric limits have already been implemented for constituents previously identified as being responsible for consistent chronic toxicity in the discharge from these facilities and the necessary treatment upgrades to address these constituents have already been made, a numeric effluent limitation for chronic toxicity should not have been included in these Permits. Ammonia was identified as the constituent responsible for nearly all of the historical incidences of toxicity in the discharge from Whittier Narrows and Pomona WRPs. Numeric ammonia limits were incorporated into the permits for these facilities and treatment upgrades to remove ammonia from the effluent were fully implemented approximately ten years ago. There has been only a single exceedance of the 1.0 TUc monthly median chronic toxicity trigger observed between these two WRPs during the previous permit cycle. The single exceedance was observed in recycled water from the Pomona WRP and, although a TRE was triggered during accelerated testing, no persistent toxicity was observed during the TRE. Identifying the pollutant responsible for rare and sporadic exceedances is rarely, if ever successful as the toxicity, if valid, proves to be ephemeral, and in some instances the initial observation of toxicity may actually have been caused by test error. Therefore, the use of numeric toxicity limits to control for rare and sporadic incidences of chronic toxicity are not feasible for POTWs since proactive measures to address such incidences before they are observed are not possible, nor are they necessary to protect beneficial uses. For these reasons, numeric triggers, accelerated testing, and TRE/TIE requirements continue to represent the most effective means to identify and ultimately control discharges of toxicity and provide full protection of water quality.

19. The District and the other Petitioners raised numerous substantial questions of fact and law regarding provisions contained in the Permits in the Petition for Review filed with the State Board on December 8, 2014. The inability to ever come into or maintain consistent compliance with the numeric effluent limitations represents an important and substantial question

of fact and law. For the reasons provided herein and in the Petition for Review, the District hopes that the State Board will take up its Petition for Review and issue an order on the invalidity of the adopted chronic toxicity requirements appealed.

I declare under penalty of perjury pursuant to the laws of California that the foregoing is true and correct.

Executed this 8th day of December, 2014 at Whittier, California.

Philip L. Friess, Declarant

DOWNEY BRAND LLP

December 9, 2014

Felicia Marcus, Chair
State Water Resources Control Board Members
Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814
Via Email - Felicia.Marcus@waterboards.ca.gov
Jeanine.Townsend@waterboards.ca.gov

Request for Hearing and Designated Party Status

Dear Ms. Marcus and State Board Members:

The National Association of Clean Water Agencies (NACWA) respectfully requests that the State Water Resources Control Board (State Board) take up the Petition for Review filed on December 8, 2014, by the County Sanitation District No. 2 of Los Angeles County, California Association of Sanitation Agencies (CASA), Southern California Alliance of POTWs (SCAP) and Bay Area Clean Water Agencies (BACWA) asking for review of the action and failure to act by the California Regional Water Quality Control Board, Los Angeles Region, in adopting Order Nos. R4-2014-0213 and R4-2014-0212 for the Whittier Narrows and Pomona Water Reclamation Plants (Petition).

This Petition raises issues of statewide and national importance and deserves to be promptly reviewed, just as the State Board appropriately reviewed similar issues related to the propriety and feasibility of numeric effluent limitations for chronic toxicity in 2003 in State Board Orders WQO 2003-0012 (Long Beach/Los Coyotes Water Reclamation Plants) and WQO 2003-0013 (Whittier Narrows Water Reclamation Plant), and has confirmed in WQO 2008-08 (City of Davis) and WQO 2012-0001 (City of Lodi). Similar issues have also been raised in other recently filed petitions for review, including but not limited to the following active petitions: A-2310 (City of Simi Valley), A-2309 (City of Thousand Oaks), and A-2308 (Camarillo Sanitary District). There is also another similar petition being held in abeyance: A-2305 (Calleguas Municipal Water District). The fact that numerous petitions and requests for stay have been filed on recently imposed numeric chronic toxicity effluent limitations and implementing provisions related to test method requirements that are being demanded by U.S. EPA, yet are inconsistent with

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applicable law and precedential State Board Orders, indicates the importance of the issues raised related to the proper regulation of chronic toxicity for publicly owned treatment works (POTWs).

Because of the importance of these issues, NACWA also requests that the State Board conduct a hearing to consider this Petition in accordance with 23 California Code of Regulations (C.C.R.) sections 2052(c) and 2067, and designate NACWA as a party in this matter. The State Board could also consider consolidating all petitions raising similar issues under 23 C.C.R. section 2054 so the issues can be resolved uniformly. We appreciate the State Board's immediate attention to this request.

Respectfully submitted,

Chris Hornback
Senior Director, Regulatory Affairs