CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

320 West 4th Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • Fax (213) 576-6640
Los Angeles Regional Water Quality Control Board
http://www.waterboards.ca.gov

ORDER R4-2020-XXXX
NPDES NO. CA0059501

WASTE DISCHARGE REQUIREMENTS FOR THE CAMROSA WATER DISTRICT, CAMROSA WATER RECLAMATION FACILITY, VENTURA COUNTY, DISCHARGE TO CALLEGUAS CREEK

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

Table 1. Discharger Information

Discharger:	Camrosa Water District (CWD, Discharger, or Permittee)
Name of Facility:	Camrosa Water Reclamation Facility (Camrosa WRF or Facility)
Facility Address:	1900 South Lewis Road Camarillo, CA 93012 Ventura County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
001	Tertiary-treated wastewater	34.181389°	-119.028611°	Calleguas Creek

Table 3. Administrative Information

This Order was adopted on:	**June 11, 2020**
This Order shall become effective on:	**August 01, 2020**
This Order shall expire on:	**July 31, 2025**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**180 days prior to the Order expiration date**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	**Major**

I, Renee Purdy, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **June 11, 2020**.

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Renee Purdy, Executive Officer

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1. FACILITY INFORMATION

Information describing the Camrosa Water Reclamation Facility (Camrosa WRF or Facility) is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

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

2.1. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It serves as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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

2.3. **Provisions and Requirements Implementing State Law.** The provisions and requirements in subsections 4.2, 4.3, and 5.2 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.

2.4. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.5. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order No. R4-2014-0210 and R4-2014-0210-A01 are rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

3.1. Discharge of treated wastewater at a location different from that described in this Order is prohibited.

3.2. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision 1.7. of Attachment D, Standard Provisions.

3.3. The monthly average effluent dry weather discharge flow rate from the facility shall not exceed the 2.25 million gallons per day (mgd) design capacity.

3.4. The Discharger shall not cause degradation of any water supply, except as consistent with State Water Board Resolution No. 68-16.

3.5. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the California Water Code (CWC).

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

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

3.8. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.1. Effluent Limitations – Discharge Point 001

4.1.1. Final Effluent Limitations – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations in Tables 4 and 5 at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Average Daily	Maximum Daily	Notes
Biochemical Oxygen Demand ($BOD_5$20°C)	mg/L	20	30	---	45	---
($BOD_5$20°C)	lbs/day	380	560	---	840	Note a
Total Suspended Solids (TSS)	mg/L	15	40	---	45	---
TSS	lbs/day	280	750	---	840	Note a
Removal Efficiency for BOD and TSS	%	≥85	---	---	---	---
Oil and Grease	mg/L	10	---	---	15	---
Oil and Grease	lbs/day	190	---	---	280	Note a

Parameter	Units	Average Monthly	Average Weekly	Average Daily	Maximum Daily	Notes
Settleable Solids	mL/L	0.1	---	---	0.3	---
Total Residual Chlorine	mg/L	---	---	---	0.1	---
Temperature	°F	---	---	---	80	---
Total coliform	MPN or CFU/100 mL	23	2.2	---	240	Note b
Total Dissolved Solids (TDS)	lbs/day	15,950	---	---	---	Note a
Sulfate	lbs/day	4,690	---	---	---	Note a
Chloride	lbs/day	2,810	---	---	---	Note a
Boron	mg/L	1.0	---	---	---	---
Boron	lbs/day	19	---	---	---	Note a
Ammonia Nitrogen	mg/L	3.0	---	---	7.2	---
Ammonia Nitrogen	lbs/day	---	---	---	6.5 x Q	Note c
Nitrate + Nitrite as N	mg/L	9.0	---	---	---	---
Nitrate as N	mg/L	9.0	---	---	---	---
Nitrite as N	mg/L	0.9	---	---	---	---
Methylene Blue Active Substances (MBAS)	mg/L	0.5	---	---	---	---
MBAS	lbs/day	9.4	---	---	---	Note a
Copper	µg/L	27.0	---	---	27.4	---
Nickel	µg/L	149	---	---	858	---
Chloro-dibromomethane	µg/L	33	---	---	68	---
Chloro-dibromomethane	lbs/day	0.62	---	---	1.3	Note a
Bromo-dichloromethane	µg/L	43	---	---	92	---
Bromo-dichloromethane	lbs/day	0.81	---	---	1.7	Note a
Chlordane	µg/L	0.00059	---	---	0.0012	---
4,4-DDD	µg/L	0.00084	---	---	0.0017	---
4,4-DDE	µg/L	0.00059	---	---	0.0012	---
4,4-DDT	µg/L	0.00059	---	---	0.0012	---
Dieldrin	µg/L	0.00014	---	---	0.00028	---
PCBs	µg/L	0.00017	---	---	0.00034	---
Toxaphene	µg/L	0.00016	---	---	0.00033	---
Chlorpyrifos	µg/L	0.0133	---	---	0.024	---

Parameter	Units	Average Monthly	Average Weekly	Average Daily	Maximum Daily	Notes
Diazinon	µg/L	0.1	---	---	0.1	---
Chronic Toxicity	Pass or Fail, % Effect (Test of Significant Toxicity (TST))	Pass	---	---	Pass or % Effect < 50	Notes d and e

Footnotes for Table 4

a. The mass-based effluent limitations are based on the plant design flow rate of 2.25 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 shall be the only applicable effluent limitations, except for TDS, chloride, and sulfate.

b. The wastes discharged to water courses shall always be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if (1) the median number of total coliform bacteria at some point in the treatment process does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Units (CFU) per 100 milliliters utilizing the bacteriological results of the last seven (7) days for which an analysis has been completed, (2) the number of total coliform bacteria does not exceed 23 MPN or CFU per 100 milliliters in more than one sample within any 30-day period, and (3) no sample shall exceed 240 MPN or CFU of total coliform bacteria per 100 milliliters. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.

c. *Q* represents the POTW flow when the water quality measurement is collected (not to exceed 2.25 mgd) and a conversion factor to lbs/day based on the units of measure for flow.

d. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the 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 on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

e. The *Calleguas Creek Watershed Toxicity TMDL* includes a Waste Load Allocation (WLA) of 1.0 TUc for toxicity, which is required to be implemented in accordance with USEPA, State Water Board, and Regional Water Board resolutions, guidance and policy at the time of permit issuance or renewal. In addition, a numeric water quality-based effluent limitation (WQBEL) is established because effluent data showed that there is reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The numeric WLA is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. Consistent with the *Toxicity TMDL*, these chronic toxicity WLA-based final effluent limitations shall be implemented using the *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), and current USEPA guidance in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June /2010)* and *EPA Regions 8, 9 and 10 Toxicity Training Tool (January 2010),* *https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*.

End of Footnotes for Table 4

Table 5. Effluent Limitations for Radioactivity

Parameter	Units	Average Monthly	Notes
Combined Radium-226 and Radium 228	pCi/L	5	Note a
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	Note a
Uranium	pCi/L	20	Note a
Gross Beta/photon emitters	millirem/ year	4	Note a
Strontium-90	pCi/L	8	Note a
Tritium	pCi/L	20,000	Note a

Footnotes for Table 5

a. The radioactivity final effluent limitations are derived from 22 CCR § 64442 and § 64443. The incorporation by reference is prospective including future changes to the incorporated provisions as changes take effect.

End of Footnotes for Table 5

b. pH shall be maintained in the final effluent within the limits of 6.5 and 8.5.

c. For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the treated wastewater does not exceed any of the following: (a) an average of 2 Nephelometric Turbidity Units (NTU) within a 24-hour period, (b) 5 NTU more than 5 percent of the time (72 minutes) within a 24-hour period, and (c) 10 NTU at any time.

d. To protect the underlying ground water basins, pollutants shall not be present in the discharge at concentrations that pose a threat to groundwater quality.

4.1.2. Interim Effluent Limitations – Not Applicable

4.2. Land Discharge Specifications – Not Applicable

4.3. Recycling Specifications

The Discharger shall continue to investigate the feasibility of recycling, conservation, and/or alternative disposal methods for wastewater, and/or beneficial use of stormwater and dry-weather urban runoff. The Discharger 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.

5. RECEIVING WATER LIMITATIONS

5.1. Surface Water Limitations

Receiving water limitations are based on the water quality objectives in the Basin Plan. The discharge shall not cause the following in the receiving water:

5.1.1. The natural receiving water temperature of all regional waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. Alterations that are allowed must meet the following requirements at the receiving water point of compliance: For waters designated with a warm freshwater habitat

(WARM) beneficial use, water temperature shall not be altered by more than 5°F above the natural temperature. At no time shall these WARM-designated waters be raised above 80°F as a result of waste discharge.

5.1.2. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.

5.1.3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.

5.1.4. Total residual chlorine shall not persist in the receiving water at any concentration that causes impairment of beneficial uses as a result of the wastes discharged.

5.1.5. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:

a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.

b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

5.1.6. The wastes discharged shall not produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.

5.1.7. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

5.1.8. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.

5.1.9. The wastes discharged shall not contain substances that result in increases in BOD, which adversely affect the beneficial uses of the receiving waters.

5.1.10. Waters discharged shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

5.1.11. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions as a result of waters discharged.

5.1.12. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.

5.1.13. The wastes discharged shall not degrade surface water communities and populations, including vertebrate, invertebrate, and plant species.

5.1.14. The wastes discharged shall not alter the natural taste, odor, or color of fish, shellfish, or other surface water resources used for human consumption.

5.1.15. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.

5.1.16. The wastes discharged shall not result in visible floating particulates, foams, or oil and grease in the receiving waters.

5.1.17. The wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.

5.1.18. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; or cause aesthetically undesirable discoloration of the receiving waters.

5.1.19. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.

5.1.20. The wastes discharged shall not cause the ammonia water quality objective (WQO) in the Basin Plan to be exceeded in the receiving waters. Ammonia shall not be present at levels that, when oxidized to nitrate, pose a threat to groundwater quality.

5.1.21. Chronic Toxicity Receiving Water Quality Objective

a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

c. 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 Discharger, then the Discharger shall initiate accelerated monitoring according to Attachment E – MRP section 5.7.

d. 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.

5.2. Groundwater Limitations

The discharge shall not cause the underlying groundwater to be degraded except as consistent with State Water Board Resolution No. 68-16. The discharge to groundwater shall not exceed WQOs, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

6. PROVISIONS

6.1. Standard Provisions

6.1.1. The Discharger shall comply with all Standard Provisions included in Attachment D.

6.1.2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions. If there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.

b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.

c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

d. Collection, treatment, and disposal systems shall be operated in a manner that precludes or impedes public contact with wastewater.

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

f. The provisions of this order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

g. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 311 of the CWA, related to oil and hazardous substances liability.

h. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

i. Discharge of wastes to any point other than specifically described in this Order is prohibited and constitutes a violation thereof.

j. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the federal CWA and amendments thereto.

k. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility; and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

l. The Facility shall be protected to reduce infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.

m. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

n. A copy of these waste discharge specifications shall always be maintained and available to operating personnel at the discharge Facility.

o. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not always manned, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

p. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board, 30 days prior to taking effect.

r. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.

s. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

i. Name and general composition of the chemical,

ii. Frequency of use,

iii. Quantities to be used,

iv. Proposed discharge concentrations, and

v. USEPA registration number, if applicable.

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

u. CWC section 13385(h)(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each

serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to CWC section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

v. CWC section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three non-serious violations within that time period.

w. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

x. CWC section 13387(e) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order shall be punished by a fine of not more than twenty-five thousand dollars ($25,000), imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for 16, 20, or 24 months, or by both that fine and imprisonment. For a subsequent conviction, such a person shall be punished by a fine of not more than twenty-five thousand dollars ($25,000) per day of violation, by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for two, three, or four years, or by both that fine and imprisonment.

y. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Regional Water Board by telephone at (213) 620-2083 or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Regional Water Board within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current

noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-6769 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. Reopener Provisions

a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

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

c. This Order may be modified, in accordance with the provisions set forth in title 40 of the Code of Federal Regulations (40 CFR) parts 122 and 124 to include requirements for the implementation of a watershed protection management approach.

d. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have reasonable potential to cause, or contribute to adverse impacts on beneficial uses or degradation of water quality of the receiving waters.

e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the

Discharger for an Order modification, revocation and issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

f. This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 to 124, to include new minimum levels (MLs).

g. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Orders to conform to the toxic effluent standard or prohibition.

h. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.

i. This Order may be reopened and modified to revise effluent limitations as a result of future additions or amendments to a statewide water quality control plan or the Los Angeles Region's Basin Plan or the adoption of a TMDL.

j. This Order may be reopened to modify the TDS, sulfate, and chloride final effluent limitations to include an adjustment factor (AF) during dry weather conditions, following approval of an AF for the Facility by the Regional Water Board.

k. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.

l. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to incorporate all elements contained in the State Water Board adopted Toxicity Plan promptly after USEPA-approval of such Plan to be consistent with the State Water Board precedential decisions, new policies, a new state-wide plan, new laws, or new regulations.

m. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, new state-wide plans, new laws, or new regulations.

6.3.2. **Special Studies, Technical Papers and Additional Monitoring Requirements**

a. **Toxicity Reduction Requirements**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) work plan in accordance with Monitoring and Reporting Program section 5.6.

b. **Calleguas Creek TMDL Monitoring Requirements**

The POTWs within the Calleguas Creek Watershed (CCW) have developed a watershed monitoring program to implement the requirements for monitoring,

conducting special studies, and implementing actions to reduce discharges of pollutants covered by the TMDL. This watershed monitoring program has been approved by the Regional Water Board. The responsible agencies to the CCW TMDLs have signed a Memorandum of Agreement to jointly fund and complete the implementation of the TMDL Calleguas Creek Watershed Monitoring Program (CCWTMP), which began in August 2008. The CCWTMP was created to better facilitate a coordinated monitoring effort where multiple TMDL monitoring requirements could be addressed via a single program that would carry out and manage all aspects of the monitoring activities. This monitoring program has been developed to easily integrate new TMDL monitoring efforts as TMDLs are adopted and/or special study monitoring efforts are required.

The CCWTMP Annual Monitoring Report has been submitted since 2009. The annual monitoring reports summarize the monitoring reports for five of the six TMDLs currently effective in the CCW. These TMDLs include nitrogen compounds and related effects, toxicity, organochlorine pesticides and PCBs, metals and selenium, and salts. A separate annual report is submitted for the trash TMDL. These reports were submitted to the Regional Water Board TMDL staff for review.

Since 2009, all sampling has followed the Standard Operating Procedures outlined in the Executive Officer approved *Calleguas Creek Watershed Management Plan Quality Assurance Project Plan (QAPP),* with the following exception: the methods for the salts compliance monitoring that began on September 9, 2012, are not currently contained in the QAPP but were described in detail in the final Salts Monitoring Approach submitted to the Regional Water Board on June 29, 2012. The QAPP is in the process of being revised to incorporate the methods, sites and schedule for salts compliance monitoring described in the final approach document.

In addition, the majority of the TMDLs include requirements for monitoring, conducting special studies, and implementing actions to reduce discharges of pollutants covered by the TMDL. Many of these activities overlap and provide benefits for numerous TMDLs in the watershed. The CCWTMP annual reports included an appendix that summarizes work plan and study submittal dates, dates of responses to comments received by the Regional Water Board, and actions that have been taken to reduce pollutant discharges to the water bodies. Additionally, the report provides a mechanism for providing the Regional Water Board with required progress reports for some of the TMDLs.

c. **Treatment Plant Capacity**

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the “30-day (monthly) average” daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report, and certify that the Discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

i. The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;

ii. The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and,

iii. A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

If the facility has reached 75 percent of capacity by the effective date of this Order but has not previously submitted such report, such a report shall be filed within 90 days of the issuance of this Order.

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

a. **Storm Water Pollution Prevention Plan (SWPPP)**

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SWPPP for the Facility using Attachment I of this Order as guidance. Per information submitted by the Discharger, stormwater from the Camrosa WRF does not leave the property and is captured in a stormwater retention basin. The Discharger filed a notice of termination (NOT) on April 25, 2014 and the stormwater from the Camrosa WRF is no longer regulated by the general NPDES permit for stormwater dischargers associated with industrial activity. Instead, the stormwater requirements are incorporated in this order.

b. **Spill Clean-up Contingency Plan (SCCP)**

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SCCP for the Facility, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Discharger's collection system or treatment facilities that reach water bodies, including dry channels and beach sands. At a minimum, the plan shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Discharger shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Discharger shall include a discussion in the annual summary report of any modifications to the Plan and the application of the Plan to all spills during the year.

c. **Pollutant Minimization Program (PMP)**

Reporting protocols in MRP section 10.2.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish

consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

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

ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section 10.2.4.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

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

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

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

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

vii. An annual status report that shall be sent to the Regional Water Board including:

- All PMP monitoring results for the previous year;
- A list of potential sources of the reportable priority pollutant(s);
- A summary of all actions undertaken pursuant to the control strategy; and
- A description of actions to be taken in the following year.

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

a. **Certified Wastewater Treatment Plant Operator**. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to California Code of

Regulations (CCR), title 23, division 3, chapter 26 (CWC sections 13625 – 13633).

b. **Climate Change Effects Vulnerability Assessment and Mitigation Plan**. The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfire, or other climate-related changes. The Discharger shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, and beneficial uses. For facilities that discharge to the ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due 12 months after adoption of this Order.

c. **Alternate Power Source.** The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, wildfires, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

6.3.5. **Special Provisions for Publicly-Owned Treatment Works (POTWs)**

a. **Biosolids Disposal Requirements.**

i. All biosolids generated at the wastewater treatment plant must be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 CFR part 503. These requirements are enforced by USEPA. 40 CFR part 503 requirements identified in Attachment H are for information only and are not regulated by this Order.

ii. The Discharger is separately required to comply with the requirements in State Water Board Order No. 2004-0012-DWQ, General WDRs for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities for those sites receiving the Discharger's biosolids which a Regional Water Board has placed under this general order, and with the requirements in individual WDRs issued by a Regional Water Board for sites receiving the Discharger's biosolids.

b. **Pretreatment Requirements**

i. The Facility does not currently provide service to any Significant Industrial Users and therefore does not maintain an active pretreatment program.

ii. The Discharger shall assess current and future users of the Facility to determine if any Significant Industrial Users exist that would require development of a pretreatment program.

c. **Collection System Requirements**

The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41(e)). The Discharger must report any non-compliance (40 CFR § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR § 122.41(d)).

d. **Filter Bypass**

Conditions pertaining to bypass are contained in Attachment D, Section 1.7 Standard Provisions – Permit Compliance. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters. These anticipated discharges are approved under the bypass conditions when the resulting combined discharge of fully treated (tertiary) and partially treated (secondary) wastewater complies with the effluent and receiving water limitations in this Order.

6.3.6. **Spill Reporting Requirements**

a. **Initial Notification**

Although State and Regional Water Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than two hours after becoming aware of the release.

ii. In accordance with the requirements of CWC section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two hours after becoming aware of the release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550.

iii. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two hours after becoming aware of the release. This initial notification does not

need to be made if the Discharger has notified Cal OES and the local health officer or the director of environmental health with jurisdiction over the affected water body. The phone number for reporting these releases of sewage to the Regional Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Regional Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Regional Water Board:

- The location, date, and time of the release;
- The route of the spill including the water body that received or will receive the discharge;
- An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;
- If ongoing, the estimated flow rate of the release at the time of the notification; and,
- The name, organization, phone number and email address of the reporting representative.

b. **Monitoring**

For spills, overflows and bypasses reported under section 6.3.6.a, the Discharger shall monitor as required below:

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). The Discharger shall analyze the samples for total coliform, fecal coliform, *E. coli* (if fecal coliform tests positive), *Enterococcus* (if spill reaches the marine waters), and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). Daily monitoring shall be conducted from the time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

c. **Reporting**

The initial notification required under section 6.3.6.a. shall be followed by:

i. As soon as possible, but not later than twenty-four hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to the Regional Water Board by email at augustine.anijielo@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge

in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

- Agency, NPDES No., Order No., and MRP CI No., if applicable;
- The location, date, and time of the discharge;
- The water body that received the discharge;
- A description of the level of treatment of the sewage or other waste discharged;
- An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;
- The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,
- The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

ii. A written preliminary report five working days after disclosure of the incident is required. Submission to the Regional Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a statewide General WDRs for Wastewater Collection System Agencies (SSS WDRs), may be submitted to the Regional Water Board to satisfy this requirement). The written report shall document the information required in paragraph d below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. **Records**

The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report. The records shall contain:

i. The date and time of each spill, overflow, or bypass;

ii. The location of each spill, overflow, or bypass;

iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section 6.3.6.b;

iv. The cause of each spill, overflow, or bypass;

v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

vi. Any mitigation measures implemented;

vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,

viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSS WDRs.

e. **Activities Coordination**

Although not required by this Order, the Regional Water Board also expects the watershed group to continue to work together regarding activities related to desalters, water users, and the use of the brine line in order to comply with the requirements of this Order, in addition to meeting the deadlines in the Salts TMDL. In addition, the Regional Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, (ii) a Municipal Separate Storm Sewer Systems (MS4) NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSS WDRs. The Regional Water Board also expects that the city of Camrosa will coordinate with its departments regarding the potential for the permissive integration of the MS4 with the wastewater collection system.

f. **Consistency with SSS WDRs**

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 sections 1311, 1342). The State Water Board adopted *General Waste Discharge Requirements for Sanitary Sewer Systems*, (WQ Order No. 2006-0003-DWQ; SSS WDRs) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSS WDRs requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSS WDRs, 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 SSS WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger 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 in sections 6.3.3.b. (SCCP Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs 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 SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

6.3.7. **Compliance Schedules – Not Applicable**

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section 4 of this Order will be determined as specified below:

7.1. General

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

7.2. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

7.3. **Average Monthly Effluent Limitation (AMEL)**

If the average (or when applicable, the median determined by subsection 7.2 above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation for the purpose of calculating mandatory minimum penalties, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month) in cases where discretionary administrative civil liabilities are appropriate. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Discharger will have demonstrated compliance with the AMEL for each day of that month for that parameter.

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

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

7.4. **Average Weekly Effluent Limitation (AWEL)**

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

7.5. **Maximum Daily Effluent Limitation (MDEL)**

If a daily discharge on a calendar day exceeds the MDEL for a given parameter, an alleged violation will be flagged, and the Discharger will be considered out of

compliance for that day for that parameter. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

7.6. **Instantaneous Minimum Effluent Limitation**

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

7.7. **Instantaneous Maximum Effluent Limitation**

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

7.8. **Six-month Median Effluent Limitation**

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged, and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median effluent limitation.

7.9. **Median Monthly Effluent Limitation (MMEL)**

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

7.10. **Chronic Toxicity**

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of*

Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (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

This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations - in the case of Whole Effluent Toxicity (WET), only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances

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

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

The chronic toxicity MDEL and MMEL are set at the IWC for the discharge (100% effluent) and expressed in units of the TST statistical approach ("Pass" or "Fail", "Percent Effect"). All NPDES effluent compliance monitoring for the chronic toxicity MDEL and MMEL shall be reported using only the 100% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using a multi-concentration test design when required by *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013). The Regional Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at 4.3.6.). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observable Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Regional Water Board (40 CFR section 122.41(h)). The Regional Water Board will make a final determination as to whether a toxicity test result is valid, and may consult

with the Discharger, the USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program (ELAP) as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

7.11. **Percent Removal**

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

$$\text{Percent Removal (\%)} = [1-(C_{Effluent}/C_{Influent})] \times 100\%$$

7.12. **Mass and Concentration Limitations**

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

7.13. **Compliance with single constituent effluent limitations**

Permittees may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section B "Multiple Sample Data Reduction" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

7.14. **Compliance with effluent limitations expressed as a sum of several constituents**

Permittees are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

7.15. **Compliance with Calleguas Creek Salts TMDL effluent limitations**

The Camrosa WRF discharges to Reach 3 of Calleguas Creek. Calleguas Creek and its tributaries are on the CWA section 303(d) list as impaired for TDS, sulfate, chloride, and boron. For this discharge, the Calleguas Creek Salts TMDL has established dry-weather WLAs for TDS, sulfate, and chloride. Federal regulations require that NPDES permits incorporate WQBELs consistent with the requirements and assumptions of any available WLAs.

The Camrosa WRF has not discharged to Calleguas Creek since 2005 and, prior to 2005, typically did not discharge during dry weather. The Calleguas Creek Salts TMDL included dry-weather WLAs for Camrosa WRF for cases when it may discharge in dry weather. The TMDL requires that the WLAs established for the Camrosa WRF be implemented as effluent limitations in the NPDES permit. Compliance is determined through effluent monitoring. The TMDL requires the effluent limitations to be applied as end-of-pipe mass-based monthly average dry-weather effluent limits. A daily maximum effluent limit was not required because the TMDL found that chloride is not

expected to have an immediate or acute effect on the beneficial uses of Calleguas Creek. In addition to meeting the dry-weather WLAs, the TMDL requires the Camrosa WRF to export salt from the Reach 3 subwatershed (1,060 lbs/day of chloride, 7,920 lbs/day of TDS, 4,610 lbs/day of sulfate, and 0 lbs/day of boron). The mechanisms for meeting the minimum salt export requirements and for monitoring progress towards meeting those requirements are included in the Calleguas Creek Watershed TMDL Monitoring Plan (CCWTMP) approved by the Executive Officer.

The Camrosa WRF's mass-based WLAs are equal to the effluent flow rate multiplied by the water quality objective minus a mass-based adjustment factor (AF). The AF is equal to the difference between the minimum salts export as required by the TMDL and the actual salts export. If the actual salts export exceeds the minimum salts export requirement, the AF results in a negative number that, when subtracted from the mass-based WLAs, will result in a net increase of the final effluent limitation.

Dry-weather definition. The dry-weather WLAs apply to the Camrosa WRF when the average flows in the receiving water are below the 86th percentile flow and there is no measurable precipitation. Dry weather conditions exist when flow in Calleguas Creek near CSUCI is less than 31 cubic feet per second (cfs) at the United States Geological Survey (USGS) gauge station 11106550. Note the USGS stopped collecting flow data at USGS station 11106550 on October 31, 2016. Shortly thereafter, Ventura County Watershed Protection District (VCWPD) started collecting average daily flow data at the same location, but it is now referred to as VCWPD station 805. The stream flow and rainfall gauging stations are operated and maintained by VCWPD. The required stream flow and rainfall data are available online at the VCWPD website (http://www.vcwatershed.net/fws).

The dry-weather final effluent limitation for salts is calculated as follows:

Given: Minimum Salt Export Requirements for Adjustment Factor

Chloride = 1,060 lbs/day

TDS = 7,920 lbs/day

Sulfate = 4,610 lbs/day

Boron = 0 lbs/day

The formula for determining final effluent limitations (dry weather) applied as monthly average is as follows:

Chloride, lbs/day = 150 x Q-AF

TDS, lbs/day = 850 x Q-AF

Sulfate, lbs/day = 250 x Q-AF

Where:

Q = the Facility's flow at the time the water quality measurement is collected and a conversion factor to lbs/day based on the units of measurement for flow.

AF = (minimum salt export requirement – actual salt export)

The Discharger is currently exporting salts from the subwatershed by treating groundwater for potable use and discharging brine to the Regional Salinity

Management Pipeline, which is owned and operated by the Calleguas Municipal Water District. However, because the final TMDL compliance deadline, which is December 2, 2023, has not yet passed, an AF has not been calculated at this time. Thus, the AF term in the formula is set to zero.

It is impracticable to use the flow at the time of sampling because the Salts TMDL requires the final effluent limitation to be expressed as an average monthly effluent limitation. Since the discharge may occur over several days and multiple samples may be collected in a given month, the AMEL is expressed definitively based on the design flow rate rather than as an equation.

The final effluent limitations are expressed as follows:

Chloride, lbs/day = 150 x Q -AF = 150 x 2.25 x 8.34 = 2,810

TDS, lbs/day = 850 x Q-AF = 850 x 2.25 x 8.34 = 15,950

Sulfate, lbs/day = 250 x Q-AF = 250 x 2.25 x 8.34 = 4,690

Where:

Q = the product of the Facility's design capacity (mgd) and the conversion factor

During wet weather, the TMDL found that the loading capacity of the stream is significantly increased by storm water flows with very low salt concentrations and did not assign WLAs in wet weather. Any discharges from the Camrosa WRF during wet weather would be assimilated by these large storm flows and would not cause exceedances of water quality objectives for salts. The basis for the wet weather final effluent limitations is included in section 4.3.2.f. of the Fact Sheet.

Wet Weather Definition. Wet weather is any day when the average flow in the receiving water is equal to or greater than the 86th percentile flow of the receiving water measured at Calleguas Creek at CSUCI (USGS 11106550 aka VCWPD station 805). The 86th percentile flow is equal to 31 cfs. The stream flow and rainfall gauging stations are operated and maintained by VCWPD. The required stream flow and rainfall data are available online at the VCWPD website (http://www.vcwatershed.net/fws)

The wet weather final effluent limitations are equivalent to the dry weather final effluent limitations and are as follows:

Parameter	Units	Average Monthly Effluent Limitation
Chloride	lbs/day	2,810
Total Dissolved Solids	lbs/day	15,950
Sulfate	lbs/day	4,690

7.16. **Compliance with 2,3,7,8-TCDD Equivalents**

TCDD equivalents shall be calculated using the following formula, where the MLs, and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$Dioxin\ Concentration = \sum_{1}^{17}(TEQi) = \sum_{1}^{17}(Ci)(TEFi)$$

where:

Ci = individual concentration of a dioxin or furan congener

TEFi = individual TEF for a congener

Congeners	MLs (pg/L)	TEFs
2,3,7,8-TetraCDD	10	1.0
1,2,3,7,8-PentaCDD	50	1.0
1,2,3,4,7,8-HexaCDD	50	0.1
1,2,3,6,7,8-HexaCDD	50	0.1
1,2,3,7,8,9-HexaCDD	50	0.1
1,2,3,4,6,7,8-HeptaCDD	50	0.01
OctaCDD	100	0.0001
2,3,7,8-TetraCDF	10	0.1
1,2,3,7,8-PentaCDF	50	0.05
2,3,4,7,8-PentaCDF	50	0.5
1,2,3,4,7,8-HexaCDF	50	0.1
1,2,3,6,7,8-HexaCDF	50	0.1
1,2,3,7,8,9-HexaCDF	50	0.1
2,3,4,6,7,8-HexaCDF	50	0.1
1,2,3,4,6,7,8-HeptaCDFs	50	0.01
1,2,3,4,7,8,9-HeptaCDFs	50	0.01
OctaCDF	100	0.0001

7.17. **Compliance with Gross Beta/photon Emitters**

The monthly average effluent limitation for gross beta/photon is equal to 4 millirem/year with a screening level of 50 picoCuries per liter (pCi/L). Due to naturally occurring Potassium-40, the results of the Potassium-40 may be subtracted from the total gross beta activity to determine if the screening level is exceeded. The Potassium-40 beta particle activity must be calculated by multiplying elemental potassium concentration (in mg/L) by a factor of 0.82 to determine activity from Potassium-40. The Potassium-40 must be analyzed from the same or equivalent sample used for the gross beta analysis.

If the gross beta particle activity minus the naturally occurring Potassium-40 is less than or equal to 50 pCi/L, the facility is in compliance and the value shall be reported as <4 millirem/year. If the gross beta particle activity minus the naturally occurring Potassium-40 beta particle activity exceeds the screening level, the Discharger must have the samples further analyzed for the *individual* nuclides. The calculation for the sum of the fractions is presented below.

The maximum contaminant level (MCL) for gross beta/photon emitters is equal 4 millirem per year. A millirem is a dose of energy to the body or any internal organ. USEPA regulates 179 man-made nuclides, and each of them has a concentration of radiation measured in pCi/L, which produces the 4 millirem dose. These concentrations are listed on table, *Derived Concentrations of (pCi/L) of Beta and Photon Emitters in Drinking Water,* which shall be used to determine compliance.

Derived Concentrations (pCi/l) of Beta and Photon Emitters in Drinking Water

Yielding a Dose of 4 mrem/yr to the Total Body or to any Critical Organ as defined in NBS Handbook 69

Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l
H-3	20,000	Ni-65	300	Nb-95	300	Sb-124	60	Nd-147	200	Os-191	600
Be-7	6,000	Cu-64	900	Nb-97	3,000	Sb-125	300	Nd-149	900	Os-191m	9,000
C-14	2,000	Zn-65	300	Mo-99	600	Te-125m	600	Pm-147	600	Os-193	200
F-18	2,000	Zn-69	6,000	Tc-96	300	Te-127	900	Pm-149	100	Ir-190	600
Na-22	400	Zn-69m	200	Tc-96m	30,000	Te-127m	200	Sm-151	1,000	Ir-192	100
Na-24	600	Ga-72	100	Tc-97	6,000	Te-129	2,000	Sm-153	200	Ir-194	90
Si-31	3,000	Ge-71	6,000	Tc-97m	1,000	Te-129m	90	Eu-152	200	Pt-191	300
P-32	30	As-73	1,000	Tc-99	900	Te-131m	200	Eu-154	60	Pt-193	3,000
S-35 inorg	500	As-74	100	Tc-99m	20,000	Te-132	90	Eu-155	600	Pt-193m	3,000
Cl-36	700	As-76	60	Ru-97	1,000	I-126	3	Gd-153	600	Pt-197	300
Cl-38	1,000	As-77	200	Ru-103	200	I-129	1	Gd-159	200	Pt-197m	3,000
K-42	900	Se-75	900	Ru-105	200	I-131	3	Tb-160	100	Au-196	600
Ca-45	10	Br-82	100	Ru-106	30	I-132	90	Dy-165	1,000	Au-198	100
Ca-47	80	Rb-86	600	Rh-103m	30,000	I-133	10	Dy-166	100	Au-199	600
Sc-46	100	Rb-87	300	Rh-105	300	I-134	100	Ho-166	90	Hg-197	900
Sc-47	300	Sr-85 m	20,000	Pd-103	900	I-135	30	Er-169	300	Hg-197m	600
Sc-48	80	Sr-85	900	Pd-109	300	Cs-131	20,000	Er-171	300	Hg-203	60
V-48	90	Sr-89	20	Ag-105	300	Cs-134	80	Tm-170	100	Tl-200	1,000
Cr-51	6,000	Sr-90	8	Ag-110m	90	Cs-134m	20,000	Tm-171	1,000	Tl-201	900
Mn-52	90	Sr-91	200	Ag-111	100	Cs-135	900	Yb-175	300	Tl-202	300
Mn-54	300	Sr-92	200	Cd-109	600	Cs-136	800	Lu-177	300	Tl-204	300
Mn-56	300	Y-90	60	Cd-115	90	Cs-137	200	Hf-181	200	Pb-203	1,000
Fe-55	2,000	Y-91	90	Cd-115m	90	Ba-131	600	Ta-182	100	Bi-206	100
Fe-59	200	Y-91m	9,000	In-113m	3,000	Ba-140	90	W-181	1,000	Bi-207	200
Co-57	1,000	Y-92	200	In-114m	60	La-140	60	W-185	300	Pa-230	600
Co-58	300	Y-93	90	In-115	300	Ce-141	300	W-187	200	Pa-233	300
Co-58m	9000	Zr-93	2,000	In-115m	1,000	Ce-143	100	Re-186	300	Np-239	300
Co-60	100	Zr-95	200	Sn-113	300	Ce-144	30	Re-187	9,000	Pu-241	300
Ni-59	300	Zr-97	60	Sn-125	60	Pr-142	90	Re-188	200	Bk-249	2,000
Ni-63	50	Nb-93m	1,000	Sb-122	90	Pr-143	100	Os-185	200		

The sum of the fraction method is used because each photon emitter targets a different organ of the body, which results in a different magnitude of risk. The sum of the beta and photon emitters shall not exceed 4 millirem/year (40 CFR section 141.66(d)(2).

Each nuclide has a different concentration that produces 4 millirem dose because different radionuclides have different energy levels. Some nuclides need to be in a higher concentration to give the same 4 millirem dose.

The laboratory shall measure the nuclide concentration in the water and compare this result to the concentration allowed for that particular nuclide (see table below). The comparison results in a fraction. This is shown in calculation below:

$$\text{Fraction of the maximum 4 millirem/year exposure limit} = \frac{pCi/L\ found\ in\ sample\ (from\ laboratory\ results)}{pCi/L\ equivalent\ from\ 4\ millirem\ of\ exposure\ (from\ conversion\ table)}$$

Each fraction must then be converted to a dose equivalent of 4 millirem/year by multiplying the fraction by 4. The results for each emitter must be summed to determine compliance.

A sample calculation is presented in the table below:

---	X	Y	X/Y	4(X/Y)
Emitter	Lab Analysis (pCi/L)	Conversion from table (pCi/4millirem)	Calculate Fraction	Calculate Total (millirem)
Cs-134	5,023	20,000	0.25115	1.0
Cs-137	30	200	0.150	0.6
Sr-90	4	8	0.5	2.0
I-131	2	3	0.7	2.8
Sum of the Fractions	---	---	1.60115	6.4

In the example above, the system would be considered in violation of the gross beta/photon effluent limitation because the “sum-of-the-fractions” is 6.4 millirem, which means that the sum of the annual dose equivalent to the total body, or to any internal organ, exceeds 4 millirem/year.

7.18. Mass Emission Rate

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.34}{N}\sum_{i=1}^{N} Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N}\sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be taken in any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t}\sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

7.19. **Bacterial Standards and Analysis**

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

$$\text{Geometric Mean} = (C_1 \times C_2 \times \ldots \times C_3)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

7.19.2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.

7.19.3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR part 136, or improved methods have been determined by the Executive Officer and/or USEPA.

7.19.4. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for* Escherichia coli *and* Enterococci *in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

7.20 **Single Operational Upset (SOU)**

7.20.1. An SOU that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

7.20.2. An SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

7.20.3. A permittee may assert SOU to limit liability only for those violations which the Permittee submitted notice of the upset as required in Provision 5.5.2.2. of Attachment D – Standard Provisions.

7.20.4. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).

7.20.5. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

$$\text{Arithmetic mean } (\mu) = \frac{\Sigma x}{n}$$

where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

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

Biosolids
Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 C.F.R. Part 503.

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

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

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

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

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

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

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

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

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

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

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

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

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

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

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

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

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 CFR part 136, Attachment B.

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

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

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

PCBs (polychlorinated biphenyls) as Aroclors
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

PCBs as Congeners
The sum of the following 41 individually quantified PCB congeners or mixtures of isomers of a single congeners in a co-elution: 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.

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

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or Regional Water Board.

Reporting Level (RL)
The RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

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

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

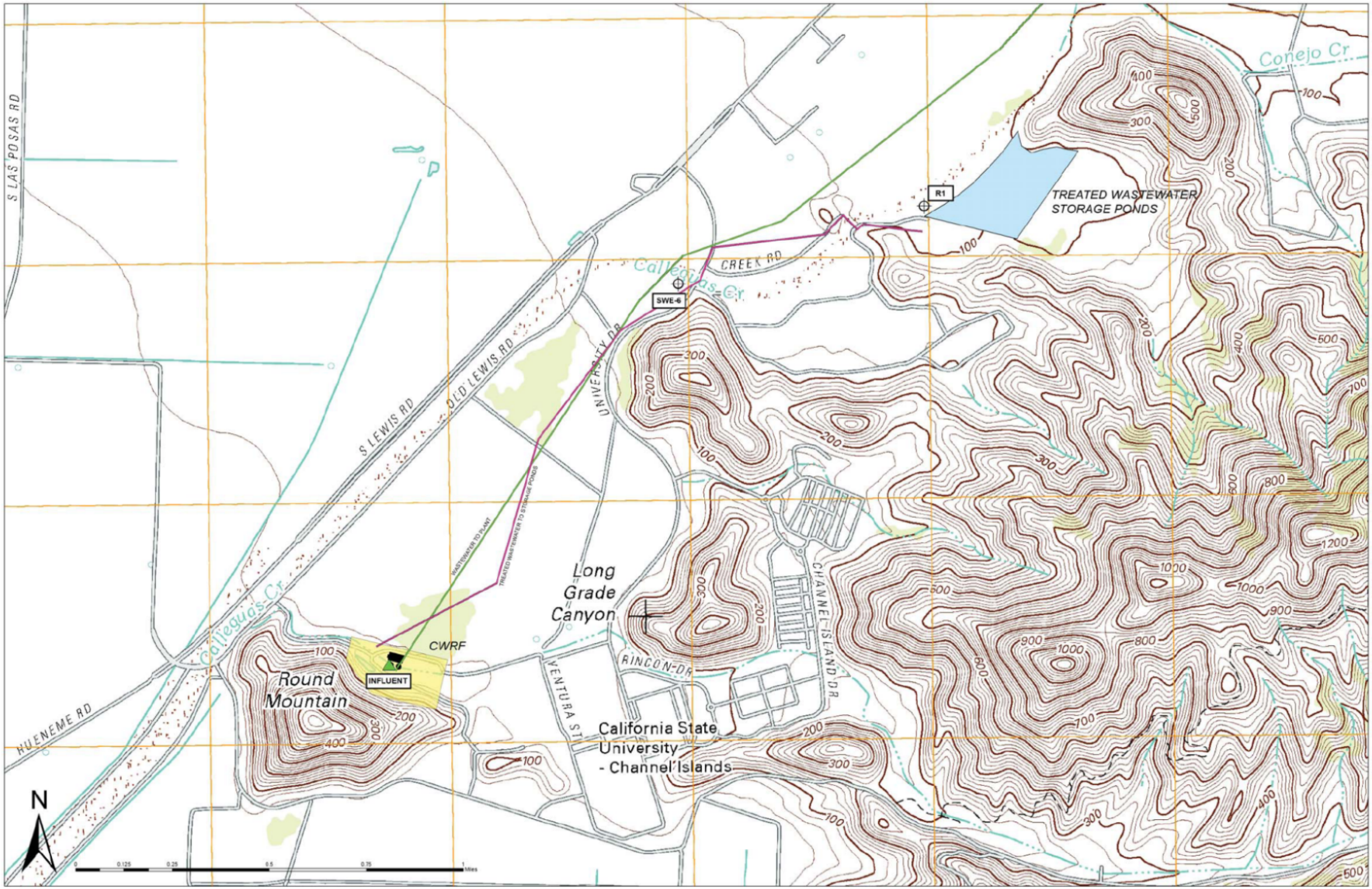
$$\text{Standard Deviation } (\sigma) = \frac{\Sigma(X-\mu)^2}{(n-1)^{0.5}}$$

where: x is the observed value; μ is the arithmetic mean of the observed values; and n is the number of samples.

Statistical Threshold Value (STV)
The STV for the bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

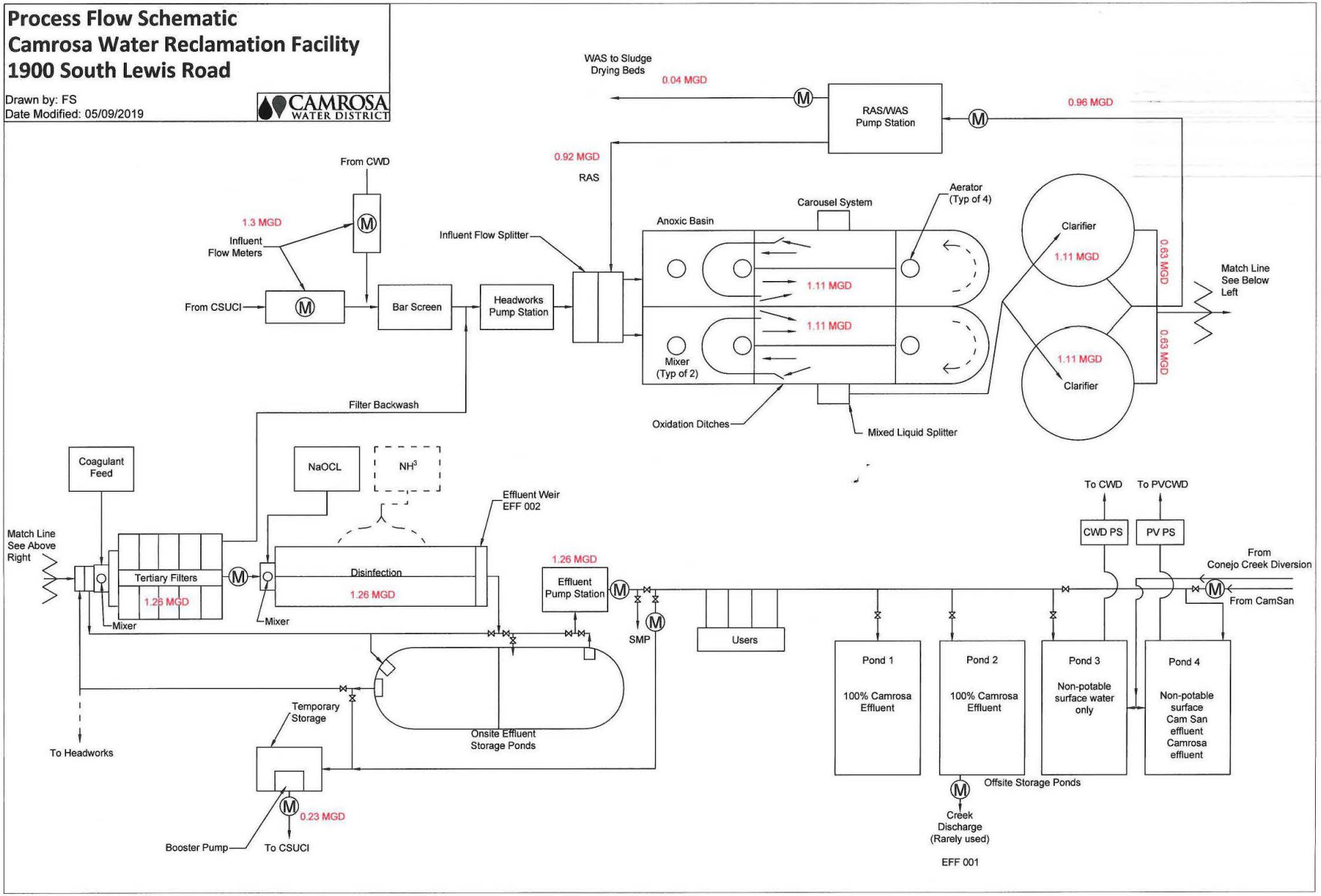
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first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

ATTACHMENT B1 – MAP OF CAMROSA WRF & SURROUNDING AREA



ATTACHMENT B2 –CAMROSA WRF SITE LAYOUT

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

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

1.1.2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR § 122.41(c).)

1.3. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

1.4. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR § 122.41(e).)

1.5. Property Rights

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)

1.5.2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

1.6. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may

be required by law, to (33 U.S.C. § 1318(a)(B); 40 CFR § 122.41(i); CWC, §§ 13267, 13383):

1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(i); 40 CFR § 122.41(i)(1); CWC, §§ 13267, 13383);

1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(2); CWC, §§ 13267, 13383);

1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(3); CWC, §§ 13267, 13383); and

1.6.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(B); 40 CFR § 122.41(i)(4); CWC, §§ 13267, 13383.)

1.7. **Bypass**

1.7.1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)

b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)

1.7.2. **Bypass not exceeding limitations.** The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR § 122.41(m)(2).)

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

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

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of

equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

1.7.4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 CFR § 122.41(m)(4)(ii).)

1.7.5. **Notice**

a. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. **Upset**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1).)

1.8.1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).)

1.8.2 **Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):

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

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

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)

1.8.3. **Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f).)

2.2. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR § 122.41(b).)

2.3. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR §§ 122.41(l)(3), 122.61.)

3. STANDARD PROVISIONS – MONITORING

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)

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

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is

high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

3.2.2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

4. STANDARD PROVISIONS – RECORDS

4.1. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

4.2. **Records of monitoring information shall include:**

4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

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

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

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

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water

Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); CWC, §§ 13267, 13383.)

5.2. **Signatory and Certification Requirements**

5.2.1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)

5.2.2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 CFR § 122.22(a)(3).).

5.2.3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 CFR § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5.2.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who

manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR § 122.22(e).)

5.3. **Monitoring Reports**

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)

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

5.4. **Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR § 122.41(l)(5).)

5.5. **Twenty-Four Hour Reporting**

5.5.1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2023, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 The reports shall comply with 40 CFR part 3, 40 C.F.R. section 122.22, and 40 CFR part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i).)

5.5.2. The following shall be included as information that must be reported within 24 hours:

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

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

5.5.3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B).)

5.6. **Planned Changes**

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

5.6.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)

5.6.3. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR § 122.41(l)(1)(iii))

5.7. **Anticipated Noncompliance**

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

5.8. **Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7).)

5.9. **Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

5.10. **Initial Recipient for Electronic Reporting Data**

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. USEPA will update and maintain this listing. (40 CFR § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

6.1. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

6.2. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more

than two years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who *knowingly* violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions (40 CFR § 122.41(a)(2); CWC section 13385 and 13387).

6.3. Any person may be assessed an administrative penalty by the Administrator of USEPA, the Regional Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. (40 CFR § 122.41(a)(3))

6.4. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. (40 CFR § 122.41(j)(5)).

6.5. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both. (40 CFR § 122.41(k)(2)).

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Publicly Owned Treatment Works (POTWs)

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

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

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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

1. GENERAL MONITORING PROVISIONS

1.1. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-8 of the MRP.

1.2. Pollutants shall be analyzed using the analytical methods described in 40 CFR parts 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

1.3. **Laboratory Certification.** Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Resources Control Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) in accordance with CWC 13176 and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Regional Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.

1.4. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All QA/QC analyses must be run on the same dates that samples are analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed, and a copy of that documentation shall be submitted with the quarterly report.

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

1.6. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed, and the method or procedure used must be specified in the monitoring report.

1.7. Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board,

Division of Drinking Water, or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program."

1.8. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Resources Control Board (State Water Board) in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (State Implementation Policy or SIP),* February 9, 2005, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported ML.

1.9. The Discharger shall select the analytical method that provides an ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section 1.11 below. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.

1.10. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section 1.11 below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

1.11. In accordance with section 2.4.3 of the SIP, the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the Discharger's permit in any of the following situations:

1.11.1. When the pollutant under consideration is not included in Appendix 4, SIP;

1.11.2. When the Discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;

1.11.3. When the Discharger agrees to use an ML that is lower than those listed in Appendix 4;

1.11.4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,

1.11.5. When the Discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

If there is any conflict between foregoing provisions and the SIP, the provisions stated in the SIP (section 2.4) shall prevail.

1.12. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with limitations set forth in this Order.

1.13. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.

1.14. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

1.14.1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.

1.14.2. Detection methods used for *E. coli* shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and* Enterococci *in Water By Membrane Filter Procedure*, or any improved method determined by the Regional Water Board to be appropriate.

1.15. The Discharger shall ensure the results of the Discharge Monitoring Report -Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

1.16. Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., non-point source run-

off, aerial fallout) or to evaluate the current status of important ecological resources on a regional basis.

The Discharger shall participate in the implementation of and comply with the Watershed-wide Monitoring Program. CWD's responsibilities under the Watershed-wide Monitoring Program are described in the Receiving Water Monitoring Requirements section. To achieve the goals of the Watershed-wide Monitoring Program, revisions to the Receiving Water Monitoring Requirements will be made under the direction of USEPA and the Regional Water Board. The Discharger shall submit annual reports providing the monitoring data collected during the calendar year, as well as an interpretation of the significance of the results with respect to the health of the watershed. Annual reports shall be submitted by July 1st of each year.

Changes to the compliance monitoring program may be required to fulfill the goals of the watershed-wide monitoring program, while retaining the compliance monitoring component required to evaluate compliance with the NPDES permit. Revisions to the Discharger's program will be made under the direction of the Regional Water Board, as necessary to accomplish the goals, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, and/or the number of samples collected.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	**Influent Monitoring Station INF-001**	The influent monitoring location shall be located at each point of inflow to the sewage treatment plant and located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained. Latitude: 34.164800° Longitude: -119.052303°
001	**Effluent Monitoring Station EFF-001**	The effluent monitoring station shall be located at the point of discharge from Pond No. 2, downstream of any in-plant return flows and/or storm water runoff and where representative samples of the effluent (after receiving all treatment) can be obtained. Latitude: 34.181389 Longitude: -119.028611°
---	**Receiving Water Monitoring Station R-1**	Calleguas Creek, 300 feet upstream of the confluence with the channel that conveys the discharge from Discharge Serial No. 001 to the creek. Latitude: 34.182153° Longitude: -119.029183°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	**Receiving Water Monitoring Station SWE-6**	Calleguas Creek, downstream of Discharge Serial No. 001 and just upstream of the Camarillo Drive bridge crossing. Latitude: 34.179094° Longitude: -119.039378°
---	**TMDL Dry and Wet Weather Flow Monitoring Station RSW-003D**	Salts TMDL stream flow monitoring station at Calleguas Creek near California State University Channel Islands (CSUCI). For the purposes of this permit, this station is also known as RSW-003D (gauge 805). Latitude: 34.178903° Longitude: -119.039356°

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes. See Attachment B1 for a map including the monitoring station R-1 and SWE-6.

3. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the pretreatment program.

Monitoring Locations INF-001

The Discharger shall monitor influent to the facility at INF-001 as follows. Monitoring at INF-001 is only required when discharge from the outfall is occurring.

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	recorder	continuous	Note a
pH	pH unit	Grab	weekly	Note b
Temperature	°F	Grab	Daily	Note b.
Total Suspended Solids (TSS)	mg/L	24-hour composite	weekly	Note b
Biochemical Oxygen Demand (BOD_5 20°C)	mg/L	24-hour composite	weekly	Note b
TDS	mg/L	24-hour composite	quarterly	Note b
Chloride	mg/L	24-hour composite	quarterly	Note b
Sulfate	mg/L	24-hour composite	quarterly	Note b
Boron	mg/L	24-hour composite	quarterly	Note b
Ammonia as N	mg/L	24-hour composite	quarterly	Note b
Nitrate plus nitrite as N	mg/L	24-hour composite	quarterly	Note b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total nitrogen	mg/L	24-hour composite	quarterly	Note b
Chlorodibromomethane	µg/L	Grab	quarterly	Note b
Dichlorobromomethane	µg/L	Grab	quarterly	Note b
Dieldrin	µg/L	24-hour composite	annually	Note b
Chlordane	µg/L	24-hour composite	annually	Note b
4,4-DDT	µg/L	24-hour composite	annually	Note b
4,4-DDD	µg/L	24-hour composite	annually	Note b
4,4-DDE	µg/L	24-hour composite	annually	Note b
PCBs as Aroclors	µg/L	24-hour composite	annually	Notes b and c
PCBs as Congeners	µg/L	24-hour composite	annually	Notes b and c
Toxaphene	µg/L	24-hour composite	annually	Note b
Copper	µg/L	24-hour composite	annually	Note b
Nickel	µg/L	24-hour composite	annually	Note b

Footnotes for Table E-2

a. Total daily flow and instantaneous peak daily flow (24-hr basis) shall be reported. The actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).

b. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 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.

c. PCBs as aroclors shall be analyzed using USEPA method 608. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c 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 determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

End of footnotes for Table E-2

4. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- Determine compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions and water quality standards.
- Assess and improve plant performance and identify operational problems.
- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.
- Determine reasonable potential analysis for toxic pollutants.
- Determine waste load allocation compliance and TMDL effectiveness.

Monitoring Location EFF-001

4.1 The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-001 as follows. Monitoring at EFF-001 is only required when discharge from the outfall is occurring. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Total waste flow	mgd	recorder	continuous	Note a
Turbidity	NTU	Grab	Daily	Notes b and c
Total residual chlorine	mg/L	Grab	Daily	Notes b and c
Total coliform	MPN/100mL or CFU/100mL	Grab	Daily	Notes b, c, and d
E. coli	MPN/100mL or CFU/100mL	Grab	Daily	Notes b, c, and d.
Temperature	°F	Grab	Daily	Notes b, c, and e.
pH	pH units	Grab	Daily	Notes b, c, and e.
Settleable solids	mL/L	Grab	weekly	Note b
Total Suspended Solids (TSS)	mg/L	Grab	weekly	Note b
BOD_5 20°C	mg/L	Grab	weekly	Note b
Oil and grease	mg/L	Grab	quarterly	Note b
Dissolved oxygen	mg/L	Grab	monthly	Note b
Total Dissolved Solids	mg/L	Grab	monthly	Note b
Sulfate	mg/L	Grab	monthly	Note b
Chloride	mg/L	Grab	monthly	Note b
Boron	mg/L	Grab	quarterly	Note b
Fluoride	mg/L	Grab	semiannually	Note b
Ammonia Nitrogen	mg/L	Grab	monthly	Notes b and e
Nitrite nitrogen	mg/L	Grab	monthly	Notes b and e
Nitrate nitrogen	mg/L	Grab	monthly	Notes b and e
Nitrate + Nitrite (as nitrogen	mg/L	Grab	monthly	Notes b and e
Organic nitrogen	mg/L	Grab	monthly	Notes b and e
Total nitrogen	mg/L	Grab	monthly	Notes b and e
Total Kjeldahl Nitrogen (TKN)	mg/L	Grab	monthly	Notes b and e
Total phosphorus	mg/L	Grab	monthly	Note b
Orthophosphate-P	mg/L	Grab	monthly	Note b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Surfactants (MBAS)	mg/L	Grab	quarterly	Note b
Surfactants (CTAS)	mg/L	Grab	quarterly	Note b
Total hardness ($CaCO_3$)	mg/L	Grab	monthly	Note b
Chronic toxicity	Pass or Fail, % Effect (TST)	Grab	monthly	Notes b and g
Copper	µg/L	Grab	quarterly	Note b
Mercury	µg/L	Grab	quarterly	Notes b and j
Nickel	µg/L	Grab	monthly	Note b
Cyanide	µg/L	Grab	semiannually	Note b
Chlorodibromomethane	µg/L	Grab	monthly	Note b
Dichlorobromomethane	µg/L	Grab	monthly	Note b
4,4-DDT	µg/L	Grab	quarterly	Note b
4,4-DDE	µg/L	Grab	quarterly	Note b
4,4-DDD	µg/L	Grab	quarterly	Note b
PCBs as Aroclors	µg/L	Grab	quarterly	Notes b and g
PCBs as Congeners	µg/L	Grab	annually	Notes b and h
Toxaphene	µg/L	Grab	quarterly	Note b
Chlordane	µg/L	Grab	quarterly	Note b
Dieldrin	µg/L	Grab	quarterly	Note b
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	Grab	annually	Notes b and h
Perchlorate	µg/L	Grab	annually	Notes b and i
Methyl tert-butyl-ether (MTBE)	µg/L	Grab	annually	Notes b and i
1,4-dioxane	µg/L	Grab	annually	Notes b and i
1,2,3-Trichloropropane	µg/L	Grab	annually	Notes b and i
N-Nitrosodimethylamine (NDMA)	µg/L	Grab	annually	Notes b and i
Chlorpyrifos	µg/L	Grab	annually	Note b
Diazinon	µg/L	Grab	annually	Note b
Acenaphthene	µg/L	Grab	annually	Note b
Acrolein	µg/L	Grab	annually	Note b
Acrylonitrile	µg/L	Grab	annually	Note b
Benzene	µg/L	Grab	annually	Note b
Benzidene	µg/L	Grab	annually	Note b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Carbon Tetrachloride	µg/L	Grab	annually	Note b
Chlorobenzene	µg/L	Grab	annually	Note b
1,2,4-trichlorobenzene	µg/L	Grab	annually	Note b
Hexachlorobenzene	µg/L	Grab	annually	Note b
1,2-dichloroethane	µg/L	Grab	annually	Note b
1,1,1-trichloroethane	µg/L	Grab	annually	Note b
Hexachloroethane	µg/L	Grab	annually	Note b
1,1-dichloroethane	µg/L	Grab	annually	Note b
1,1,2-trichloroethane	µg/L	Grab	annually	Note b
1,1,2,2-tetrachloroethane	µg/L	Grab	annually	Note b
Chloroethane	µg/L	Grab	annually	Note b
Bis(2-chloroethyl) ether	µg/L	Grab	annually	Note b
2-chloroethyl vinyl ether	µg/L	Grab	annually	Note b
2-chloronaphthalene	µg/L	Grab	annually	Note b
2,4,6-trichlorophenol	µg/L	Grab	annually	Note b
Parachlorometa cresol	µg/L	Grab	annually	Note b
Chloroform	µg/L	Grab	annually	Note b
2-chlorophenol	µg/L	Grab	annually	Note b
1,2-dichlorobenzene	µg/L	Grab	annually	Note b
1,3-dichlorobenzene	µg/L	Grab	annually	Note b
1,4-dichlorobenzene	µg/L	Grab	annually	Note b
3,3-dichlorobenzidene	µg/L	Grab	annually	Note b
1,1-dichloroethylene	µg/L	Grab	annually	Note b
1,2-trans-dichloroethylene	µg/L	Grab	annually	Note b
2,4-dichlorophenol	µg/L	Grab	annually	Note b
1,2-dichloropropane	µg/L	Grab	annually	Note b
1,3-dichloropropylene	µg/L	Grab	annually	Note b
2,4-dimethylphenol	µg/L	Grab	annually	Note b
2,4-dinitrotoluene	µg/L	Grab	annually	Note b
2,6-dinitrotoluene	µg/L	Grab	annually	Note b
1,2-diphenylhydrazine	µg/L	Grab	annually	Note b
Ethylbenzene	µg/L	Grab	annually	Note b
Fluoranthene	µg/L	Grab	annually	Note b
4-chlorophenyl phenyl ether	µg/L	Grab	annually	Note b
4-bromophenyl phenyl ether	µg/L	Grab	annually	Note b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Bis(2-chloroisopropyl) ether	µg/L	Grab	annually	Note b
Bis(2-chlorethoxy) methane	µg/L	Grab	annually	Note b
Methylene chloride	µg/L	Grab	annually	Note b
Methyl Chloride	µg/L	Grab	annually	Note b
Methyl Bromide	µg/L	Grab	annually	Note b
Bromoform	µg/L	Grab	annually	Note b
Hexachlorobutadiene	µg/L	Grab	annually	Note b
Hexachlorocyclopentadiene	µg/L	Grab	annually	Note b
Isophorone	µg/L	Grab	annually	Note b
Naphthalene	µg/L	Grab	annually	Note b
Nitrobenzene	µg/L	Grab	annually	Note b
2-nitrophenol	µg/L	Grab	annually	Note b
4-nitrophenol	µg/L	Grab	annually	Note b
2,4-dinitrophenol	µg/L	Grab	annually	Note b
4,6-dinitro-o-cresol	µg/L	Grab	annually	Note b
N-nitrosodimethylamine	µg/L	Grab	annually	Note b
N-nitrosodiphenylamine	µg/L	Grab	annually	Note b
N-nitrosodi-n-propylamine	µg/L	Grab	annually	Note b
Pentachlorophenol	µg/L	Grab	annually	Note b
Phenol	µg/L	Grab	annually	Note b
Bis(2-ethylhexyl) phthalate	µg/L	Grab	annually	Note b
Butyl benzyl phthalate	µg/L	Grab	annually	Note b
Di-n-butyl Phthalate	µg/L	Grab	annually	Note b
Di-n-octyl phthalate	µg/L	Grab	annually	Note b
Diethyl phthalate	µg/L	Grab	annually	Note b
Dimethyl phthalate	µg/L	Grab	annually	Note b
Benzo(a) anthracene	µg/L	Grab	annually	Note b
Benzo(a) Pyrene	µg/L	Grab	annually	Note b
Benzo(b) Fluoranthene	µg/L	Grab	annually	Note b
Benzo(k) Fluoranthene	µg/L	Grab	annually	Note b
Chrysene	µg/L	Grab	annually	Note b
Acenaphthylene	µg/L	Grab	annually	Note b
Anthracene	µg/L	Grab	annually	Note b
Benzo(ghi) perylene	µg/L	Grab	annually	Note b
Fluorene	µg/L	Grab	annually	Note b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Phenanthrene	µg/L	Grab	annually	Note b
Dibenzo(a,h) anthracene	µg/L	Grab	annually	Note b
Indeno (1,2,3-cd) pyrene	µg/L	Grab	annually	Note b
Pyrene	µg/L	Grab	annually	Note b
Tetrachloroethylene	µg/L	Grab	annually	Note b
Toluene	µg/L	Grab	annually	Note b
Trichloroethylene	µg/L	Grab	annually	Note b
Vinyl chloride	µg/L	Grab	annually	Note b
Aldrin	µg/L	Grab	annually	Note b
Alpha endosulfan	µg/L	Grab	annually	Note b
Beta endosulfan	µg/L	Grab	annually	Note b
Endrin	µg/L	Grab	annually	Note b
Endrin aldehyde	µg/L	Grab	annually	Note b
Heptachlor	µg/L	Grab	annually	Note b
Heptachlor epoxide	µg/L	Grab	annually	Note b
Alpha BHC	µg/L	Grab	annually	Note b
Beta BHC	µg/L	Grab	annually	Note b
Gamma BHC	µg/L	Grab	annually	Note b
Delta BHC	µg/L	Grab	annually	Note b
Antimony	µg/L	Grab	annually	Note b
Arsenic	µg/L	Grab	annually	Note b
Beryllium	µg/L	Grab	annually	Note b
Cadmium	µg/L	Grab	annually	Note b
Total Chromium	µg/L	Grab	annually	Note b
Chromium VI	µg/L	Grab	annually	Note b
Chromium III	µg/L	Grab	annually	Note b
Lead	µg/L	Grab	annually	Note b
Selenium	µg/L	Grab	annually	Note b
Silver	µg/L	Grab	annually	Note b
Thallium	µg/L	Grab	annually	Note b
Zinc	µg/L	Grab	annually	Note b
2,3,7,8-TCDD	µg/L	Grab	annually	Note b

Footnotes for Table E-3

a. Flow shall be reported as total daily and peak daily.

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

c. Daily samples shall be collected Monday through Friday, except for holidays.

d. *E. coli* testing shall be conducted only if total coliform testing is positive. If the total coliform analysis results in no detection, a result of less than (<) the reporting limit for total coliform will be reported for *E. coli*.

e. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total Kjeldahl nitrogen, pH, and temperature sampling shall be conducted as close to concurrently as possible.

f. The Discharger shall conduct whole effluent toxicity monitoring as outlined in section 5. Please refer to section 5.7. of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as "Pass" or "Fail." The maximum daily single result shall be reported as "Pass or Fail" and "% Effect." When there is a discharge on more than one day in a calendar month period, up to three independent toxicity tests may be conducted when one toxicity test results in "Fail."

g. PCBs as aroclors shall be analyzed using USEPA method 608. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c 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 determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

h. Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If radium-226 & 228 exceeds the stipulated criteria, analyze for tritium, strontium-90 and uranium.

i. 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 Discharger received ELAP certification to run USEPA method 624).

j. Mercury shall be analyzed using EPA method 1631E, per 40 CFR 136.

End of Footnotes for Table E-3

4.2. Sediment Monitoring of Effluent at EFF-001

The Discharger must sample the discharge at the point of final treatment, prior to entering the receiving water, to demonstrate compliance with the *Metals TMDL* suspended sediment requirement. The exact location of the sampling point must be stipulated in the initial self-monitoring report. All samples shall be tested in accordance with USEPA or ASTM methodologies where such methods exist. Where no USEPA or ASTM methods exist, the State Water Board and the Regional Water Board (collectively Water Boards) shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the State Water Board in accordance with Water Code Section 13176. Sediment monitoring is only required once during the permit term

if there is discharge during the permit term, the effluent water column monitoring results for TSS are exceeded and mercury is detected in the effluent.

Table E-4. Sediment Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Mercury	mg/kg	Grab	1/permit term

5. CHRONIC WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

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

5.2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected during accelerated monitoring for subsequent TIE studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

5.3. Chronic Freshwater Species and Test Methods

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

- A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).
- A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01).
- A static toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

5.4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Ceriodaphnia dubia* and the *Pimephales promelas*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. However, that same sample shall be used to renew both the *Ceriodaphnia dubia* and the *Pimephales promelas*. If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the

discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. If two or more species result in "Fail," then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until a rescreening is required.

Species sensitivity rescreening is required once per permit term if there has been discharge during dry weather conditions. If the intermittent discharge is only during wet weather, rescreening is not required. If rescreening is necessary, the Discharger shall rescreen with the fish, an invertebrate, and the alga species previously referenced and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

5.5. Quality Assurance and Additional Requirements

5.5.1. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below. The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1 and Appendix B, Table B-1. The null hypothesis (Ho) for the TST approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations - in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

5.5.2. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in "Fail."

5.5.3. 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* (USEPA 2002, EPA-821-R-02-013) (See Table E-5, below), then the Discharger must re-sample and re-test within 14 days.

Table E-5. USEPA Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria
Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Method 1000.0. (Table 1 of Test Method)	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 Test Method)	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 the surviving control females must produce three broods. (required)
Green Alga, *Selenastrum capricornutum*, Growth Toxicity Test Method 1003.0. (Table 3 of Test Method)	Mean cell density at least $1x10^6$ cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

5.5.4. Dilution 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.

5.5.5. Monthly reference toxicant testing is sufficient. All reference toxicant test results shall be reviewed and reported using the EC25[1].

5.5.6. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rational is explained in the Fact Sheet (Attachment F).

5.6. Preparation of an Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a copy of the Discharger'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 Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version, or EPA manual *Generalized Methodology for Conducting Industrial Toxicity*

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

Reduction Evaluations (EPA/600/2-88/070, April 1989). At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the work plan shall include:

- 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.
- 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.
- 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).

5.7. Accelerated Monitoring Schedule for Median Monthly Summary Result: "Fail"; and Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail and % Effect ≥50."

When there is discharge on more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge on only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within seven calendar days for the *Ceriodaphnia dubia* test, and within 5 calendar days for both the *Pimephales promelas* and *Selenastrum capricornutum* tests. The accelerated monitoring schedule shall consist of four toxicity tests (including 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 Discharger shall return to routine monitoring for the next monitoring period.

5.8. Toxicity Reduction Evaluation (TRE) Process

If one of the accelerated toxicity tests results in "Fail", the Discharger shall immediately implement the TRE Process conditions set forth below. 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.

5.8.1. Preparation and Implementation of Detailed TRE Work Plan. The Discharger 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) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, April 1989) and, within 30 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:

- Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
- Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
- A schedule for these actions, progress reports, and the final report.

5.8.2. TIE Implementation. The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Chronic TIE Manual: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (*EPA/600/6-91/005F, 1992); *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.

5.8.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

5.8.4. The Discharger 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 has begun.

5.8.5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

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

5.9. 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, “Report Preparation,” including:

- The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity

test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-8.

- A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1
- TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.
- Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- Tabular data and graphical plots clearly showing the laboratory's performance for the reference toxicant, for each solution, for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.
- Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Regional Water Board Chief Deputy Executive Officer or the Executive Officer.

5.10. Ammonia Removal

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

- 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.
- Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
- Conduct graduated pH tests as specified in the TIE methods. For example, mortality should be higher at pH 8 and lower at pH 6.
- 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 is due to ammonia.

5.10.2. 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.

5.11. Chlorine Removal

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

6. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

7. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1. Monitoring Location SWE-6 and R-1

8.1.1. Sites shall be monitored at the indicated frequency when discharge occurs. If there is no discharge within a given permit cycle, the upstream receiving water site R-1 shall be monitored at least once during that permit cycle.

8.1.2. The Discharger shall monitor Calleguas Creek at SWE-6 and R-1 as follows:

Table E-6. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total flow	cfs	calculation	monthly	Note a
Turbidity	NTU	grab	monthly	Note a
Total residual chlorine	mg/L	grab	monthly	Note a
Temperature	°F	grab	monthly	Note a
pH	pH units	grab	monthly	Note a
Dissolved oxygen	mg/L	grab	monthly	Note a
E. coli	MPN/100mL or CFU/100mL	grab	monthly	Note a
Settleable solids	mL/L	grab	monthly	Note a
Total Suspended Solids (TSS)	mg/L	grab	monthly	Note a
BOD_5 20°C	mg/L	grab	monthly	Note a
Oil and grease	mg/L	grab	quarterly	Note a
Total hardness ($CaCO_3$)	mg/L	grab	monthly	Note a
Conductivity	µmho/cm	grab	monthly	Note a
Total Dissolved Solids	mg/L	grab	monthly	Note a
Sulfate	mg/L	grab	monthly	Note a
Chloride	mg/L	grab	monthly	Note a
Boron	mg/L	grab	quarterly	Note a

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Fluoride	mg/L	grab	semiannually	Note a
Ammonia Nitrogen	mg/L	grab	monthly	Note a
Nitrite nitrogen	mg/L	grab	monthly	Note a
Nitrate nitrogen	mg/L	grab	monthly	Note a
Nitrate + Nitrite (as nitrogen)	mg/L	grab	monthly	Note a
Organic nitrogen	mg/L	grab	monthly	Note a
Total nitrogen	mg/L	grab	monthly	Note a
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	monthly	Note a
Total phosphorus	mg/L	grab	monthly	Note a
Orthophosphate-P	mg/L	grab	monthly	Note a
Surfactants (MBAS)	mg/L	grab	quarterly	Note a
Surfactants (CTAS)	mg/L	grab	quarterly	Note a
Chronic toxicity	Pass or Fail, % Effect (TST)	grab	monthly	Notes a and b
Mercury	µg/L	grab	quarterly	Note a
Bis(2-ethylhexyl) phthalate	µg/L	grab	semiannually	Note a
Chlorpyrifos	µg/L	grab	semiannually	Note a
diazinon	µg/L	grab	semiannually	Note a
Chlorodibromomethane	µg/L	grab	monthly	Note a
Dichlorobromomethane	µg/L	grab	monthly	Note a
4,4-DDT	µg/L	grab	quarterly	Note a
4,4-DDE	µg/L	grab	quarterly	Note a
4,4-DDD	µg/L	grab	quarterly	Note a
1,4-dioxane	µg/L	grab	annually	Notes a and c
perchlorate	µg/L	grab	annually	Notes a and c
1,2,3-trichloropropane	µg/L	grab	annually	Notes a and c
Methyl tert-butyl-ether (MTBE)	µg/L	grab	annually	Notes a and c
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	grab	annually	Notes a and d
Acenaphthene	µg/L	grab	annually	Note a
Acrolein	µg/L	grab	annually	Note a
Acrylonitrile	µg/L	grab	annually	Note a
Benzene	µg/L	grab	annually	Note a
Benzidene	µg/L	grab	annually	Note a
Carbon Tetrachloride	µg/L	grab	annually	Note a
Chlorobenzene	µg/L	grab	annually	Note a

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
1,2,4-trichlorobenzene	µg/L	grab	annually	Note a
Hexachlorobenzene	µg/L	grab	annually	Note a
1,2-dichloroethane	µg/L	grab	annually	Note a
1,1,1-trichloroethane	µg/L	grab	annually	Note a
Hexachloroethane	µg/L	grab	annually	Note a
1,1-dichloroethane	µg/L	grab	annually	Note a
1,1,2-trichloroethane	µg/L	grab	annually	Note a
1,1,2,2-tetrachloroethane	µg/L	grab	annually	Note a
Chloroethane	µg/L	grab	annually	Note a
Bis(2-chloroethyl) ether	µg/L	grab	annually	Note a
2-chloroethyl vinyl ether	µg/L	grab	annually	Note a
2-chloronaphthalene	µg/L	grab	annually	Note a
2,4,6-trichlorophenol	µg/L	grab	annually	Note a
Parachlorometa cresol	µg/L	grab	annually	Note a
Chloroform	µg/L	grab	annually	Note a
2-chlorophenol	µg/L	grab	annually	Note a
1,2-dichlorobenzene	µg/L	grab	annually	Note a
1,3-dichlorobenzene	µg/L	grab	annually	Note a
1,4-dichlorobenzene	µg/L	grab	annually	Note a
3,3-dichlorobenzidene	µg/L	grab	annually	Note a
1,1-dichloroethylene	µg/L	grab	annually	Note a
1,2-trans-dichloroethylene	µg/L	grab	annually	Note a
2,4-dichlorophenol	µg/L	grab	annually	Note a
1,2-dichloropropane	µg/L	grab	annually	Note a
1,3-dichloropropylene	µg/L	grab	annually	Note a
2,4-dimethylphenol	µg/L	grab	annually	Note a
2,4-dinitrotoluene	µg/L	grab	annually	Note a
2,6-dinitrotoluene	µg/L	grab	annually	Note a
1,2-diphenylhydrazine	µg/L	grab	annually	Note a
Ethylbenzene	µg/L	grab	annually	Note a
Fluoranthene	µg/L	grab	annually	Note a
4-chlorophenyl phenyl ether	µg/L	grab	annually	Note a
4-bromophenyl phenyl ether	µg/L	grab	annually	Note a
Bis(2-chloroisopropyl) ether	µg/L	grab	annually	Note a
Bis(2-chlorethoxy) methane	µg/L	grab	annually	Note a
Methylene chloride	µg/L	grab	annually	Note a
Methyl Chloride	µg/L	grab	annually	Note a
Methyl Bromide	µg/L	grab	annually	Note a

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Bromoform	µg/L	grab	annually	Note a
Hexachlorobutadiene	µg/L	grab	annually	Note a
Hexachlorocyclopentadiene	µg/L	grab	annually	Note a
Isophorone	µg/L	grab	annually	Note a
Naphthalene	µg/L	grab	annually	Note a
Nitrobenzene	µg/L	grab	annually	Note a
2-nitrophenol	µg/L	grab	annually	Note a
4-nitrophenol	µg/L	grab	annually	Note a
2,4-dinitrophenol	µg/L	grab	annually	Note a
4,6-dinitro-o-cresol	µg/L	grab	annually	Note a
N-nitrosodimethylamine	µg/L	grab	annually	Note a
N-nitrosodiphenylamine	µg/L	grab	annually	Note a
N-nitrosodi-n-propylamine	µg/L	grab	annually	Note a
Pentachlorophenol	µg/L	grab	annually	Note a
Phenol	µg/L	grab	annually	Note a
Butyl benzyl phthalate	µg/L	grab	annually	Note a
Di-n-butyl Phthalate	µg/L	grab	annually	Note a
Di-n-octyl phthalate	µg/L	grab	annually	Note a
Diethyl phthalate	µg/L	grab	annually	Note a
Dimethyl phthalate	µg/L	grab	annually	Note a
Benzo(a) anthracene	µg/L	grab	annually	Note a
Benzo(a) Pyrene	µg/L	grab	annually	Note a
Benzo(b) Fluoranthene	µg/L	grab	annually	Note a
Benzo(k) Fluoranthene	µg/L	grab	annually	Note a
Chrysene	µg/L	grab	annually	Note a
Acenaphthylene	µg/L	grab	annually	Note a
Anthracene	µg/L	grab	annually	Note a
Benzo(ghi) perylene	µg/L	grab	annually	Note a
Fluorene	µg/L	grab	annually	Note a
Phenanthrene	µg/L	grab	annually	Note a
Dibenzo(a,h) anthracene	µg/L	grab	annually	Note a
Indeno (1,2,3-cd) pyrene	µg/L	grab	annually	Note a
Pyrene	µg/L	grab	annually	Note a
Tetrachloroethylene	µg/L	grab	annually	Note a
Toluene	µg/L	grab	annually	Note a
Trichloroethylene	µg/L	grab	annually	Note a
Vinyl chloride	µg/L	grab	annually	Note a
Aldrin	µg/L	grab	annually	Note a

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dieldrin	µg/L	grab	quarterly	Note a
Chlordane	µg/L	grab	quarterly	Note a
Alpha endosulfan	µg/L	grab	annually	Note a
Beta endosulfan	µg/L	grab	annually	Note a
Endrin	µg/L	grab	annually	Note a
Endrin aldehyde	µg/L	grab	annually	Note a
Heptachlor	µg/L	grab	annually	Note a
Heptachlor epoxide	µg/L	grab	annually	Note a
Alpha BHC	µg/L	grab	annually	Note a
Beta BHC	µg/L	grab	annually	Note a
Gamma BHC	µg/L	grab	annually	Note a
Delta BHC	µg/L	grab	annually	Note a
PCBs as Aroclors	µg/L	grab	quarterly	Notes a and e
Toxaphene	µg/L	grab	quarterly	Note a
Antimony	µg/L	grab	annually	Note a
Arsenic	µg/L	grab	annually	Note a
Beryllium	µg/L	grab	annually	Note a
Cadmium	µg/L	grab	annually	Note a
Total Chromium	µg/L	grab	annually	Note a
Chromium III	µg/L	calculation	annually	Note a
Chromium VI	µg/L	grab	annually	Note a
Lead	µg/L	grab	annually	Note a
Copper	µg/L	grab	quarterly	Note a
Cyanide	µg/L	grab	annually	Note a
Nickel	µg/L	grab	monthly	Note a
Selenium	µg/L	grab	annually	Note a
Silver	µg/L	grab	annually	Note a
Thallium	µg/L	grab	annually	Note a
Zinc	µg/L	grab	annually	Note a
2,3,7,8-TCDD	µg/L	grab	annually	Note a

Footnotes for Table E-6

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

b. The Discharger shall conduct whole effluent toxicity monitoring as outlined in Section 5. Please refer to Section 5.7. of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as “Pass” or “Fail.” The maximum daily single result is a threshold

value for a determination of not meeting the narrative receiving water objective and shall be reported as "Pass or Fail" and "% Effect." When there is a discharge on more than one day in a calendar month period, up to three independent toxicity tests may be conducted 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 Discharger, then the Discharger shall initiate accelerated monitoring. For example, if the chronic toxicity median monthly threshold of the receiving water at both upstream and downstream stations are not met, but the effluent chronic toxicity monthly median effluent limitation was met, then accelerated monitoring need not be implemented.

c. Emerging chemicals include 1,4-dioxane (USEPA test method 8270M), perchlorate (USEPA test method 314, or 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA test method 504.1, 8260B, or 524.2 in SIM mode), and methyl tert-butyl ether (USEPA test method 8260B, or 624 if a detection level of less than 5 µg/L is achieved, and if the laboratory received ELAP certification to conduct USEPA method 624).
d. Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If radium-226 & 228 exceeds the stipulated criteria, analyze for tritium, strontium-90 and uranium.
e. PCBs as aroclors shall be analyzed using USEPA method 608.

End of Footnotes for Table E-6

8.1.2. Receiving water samples shall not be collected during or within 48 hours following the flow of rainwater runoff into Calleguas Creek.

8.1.3. Sampling may be rescheduled at the receiving water stations if weather and flow conditions would endanger the personnel collecting receiving water samples. The quarterly monitoring report shall note such occasions.

8.2. TMDL Stream Flow and Rainfall Monitoring

To determine the dry and wet weather flow conditions in the receiving water, the Discharger shall report the average daily flow in Calleguas Creek near the California State University, Channel Islands (CSUCI). For the purpose of this permit, this station is also known as RSW-003D (gauge 805). The Discharger shall also report the total daily rainfall from an existing rainfall gauging station located at CSUCI.

The Calleguas Creek Salts TMDL has defined dry weather as when the flows in the receiving waters are below the 86th percentile (included in the TMDL staff report) of the flow and there is no measurable precipitation. The rainfall precipitation shall be obtained from an existing rainfall gauging station located at CSUCI. If the gauging stations are not operational, an estimated average daily flow and rainfall may be submitted.

Table E-7. TMDL Stream Flow and Rainfall Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and
Average Daily Flow	cubic feet per second (cfs)	Online data	Daily	N/A
Total Daily Rainfall	inches	Online data	Daily	N/A

9. OTHER MONITORING REQUIREMENTS

9.1. Calleguas Creek TMDL Monitoring Requirements

The TMDL monitoring program is discussed in section 6.3.2.b. of the Order.

9.2. Watershed Monitoring

9.2.1. The goals of the Watershed-wide Monitoring Program for the Calleguas 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
- Determine mixing dynamics of effluent and receiving waters in the estuary.

9.2.2. The Discharger shall participate in the implementation of the Watershed-wide Monitoring Program developed by stakeholders and initiated in 2008. The Discharger's responsibilities under the Watershed-wide Monitoring Program are described in the Receiving Water Monitoring Requirements section of this Order. To achieve the goals of the Watershed-wide Monitoring Program, revisions to the receiving water monitoring requirements will be made under the direction of USEPA and the Regional Water Board. The Discharger shall submit annual reports providing the monitoring data collected during the calendar year, as well as an interpretation of the significance of the results with respect to the health of the watershed. Annual reports shall be submitted by July 1st of each year.

9.2.3. In coordination with interested stakeholders in the Calleguas Creek Watershed, the Discharger shall conduct a bioassessment program annually in the spring/summer period 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 Calleguas Creek Watershed Monitoring Program.

a. The bioassessment program shall include an analysis of the community structure of the instream macroinvertebrate assemblages and physical habitat assessment at monitoring stations SWE6 and R1.

   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, data entry, and 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 Wildlife's Aquatic Bioassessment Laboratory located in Rancho Cordova, California.

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

9.3. Tertiary Filter Treatment Bypasses

9.3.1. During any day that filters are bypassed, the Discharger shall monitor the effluent daily for BOD, suspended solids, settleable solids, and oil and grease, until it is demonstrated that the filter "bypass" has not caused an adverse impact on the receiving water.

9.3.2. The Discharger shall maintain chronological log of tertiary filter treatment process bypasses, to include the following:

- Date and time of bypass start and end;
- Total duration time; and,
- Estimated total volume bypassed

9.3.3. The Discharger shall submit a written report to the Regional Water Board, according to the corresponding monthly self-monitoring report schedule. The report shall include, at a minimum, the information from the chronological log. Results from the daily effluent monitoring, required by 10.3.1. above, shall be verbally reported to the Regional Water Board as the results become available and submitted as part of the monthly SMR.

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

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

10.1.2. If there is no discharge during any reporting period, the report shall so state.

10.1.3. 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.

10.1.4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

10.2. Calleguas Creek TMDL Monitoring and Reporting Requirements

The Calleguas Creek Watershed TMDL Monitoring Plan (CCWTMP) is designed to monitor and evaluate the implementation of multiple TMDLs within the Calleguas

Creek Watershed. The CCWTMP was created to better facilitate a coordinated monitoring effort where multiple TMDL monitoring requirements could be addressed via a single program that would carry out and manage all aspects of the monitoring activities. The TMDLs in the watershed include Calleguas Creek Watershed Nutrients TMDL, Toxicity TMDL, and OC Pesticide, PCBs, and Sediment TMDL. This monitoring program has been developed to easily integrate new TMDL monitoring efforts as TMDLs are adopted and/or special study monitoring efforts are required.

The Discharger shall submit reports to the Regional Water Board as required by the approved CCWTMP.

(See also section 6.3.2.b. of the Order for Monitoring and Reporting Requirements.)

10.2. Self-Monitoring Reports (SMRs)

10.2.1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website <http://www.waterboards.ca.gov/water_issues/programs/ciwqs>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit 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 Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-8. Monitoring Periods and Reporting Schedule

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

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

10.2.4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard.

At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.2.5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

10.2.6. **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 Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

10.2.7. The Discharger shall submit SMRs in accordance with the following requirements:

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

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; 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.

10.3. Discharge Monitoring Reports (DMRs)

DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at:
http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

10.4. Other Reports

10.4.1. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – 6.3. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection 10.2. above.

10.4.2. Annual Summary Report

By April 15 of each year, the Discharger 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 Discharger shall submit an annual report to the Regional Water Board in accordance with the requirements described in subsection 10.2.7 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 list of the pollutant(s) that triggered reasonable potential;
- The Basin Plan or CTR criteria that was exceeded for each given pollutant;
- The concentration of the pollutant(s);
- The test method used to analyze the sample; and,
- The date and time of sample collection.

10.4.3. The Discharger 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.

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

- 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.
- Evaluate the effectiveness of present facilities and procedures and state when they become operational.
- Describe facilities and procedures needed for effective preventive and contingency plans.
- 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.

10.4.5. **Climate Change Effects Vulnerability Assessment and Mitigation Plan**

The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfire, or other climate-related changes. The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, and beneficial uses. For facilities that discharge to the ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due 12 months after adoption of this Order.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the Los Angeles Regional Water Quality Control Board (Regional Water Board) incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4A560106003
Discharger	Camrosa Water District
Name of Facility	Camrosa Water Reclamation Facility and its associated wastewater collection system and outfall
Facility Address	1900 South Lewis Road Camarillo, CA 93012 Ventura County
Facility Contact, Title and Phone	Kevin Wahl, Superintendent of Operations, (805) 482-8673
Authorized Person to Sign and Submit Reports	Tony Stafford, General Manager, (805) 482-8342
Mailing Address	7385 Santa Rosa Road, Camarillo, CA 93012
Billing Address	Same as above
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	No
Recycling Requirements	Producer/User
Facility Permitted Flow	2.25 million gallons per day (mgd)
Facility Design Flow	2.25 mgd
Watershed	Calleguas Creek Watershed
Receiving Water	Calleguas Creek
Receiving Water Type	Inland surface water

1.1. The Camrosa Water District (hereinafter CWD, Discharger, or Permittee) owns and operates a Publicly Owned Treatment Works (POTW) comprised of the Camrosa Water Reclamation Facility (hereinafter Camrosa WRF or Facility) and its associated wastewater collection system and outfalls.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

1.2. The Discharger owns and operates the Camrosa WRF located at 1900 South Lewis Road, Camarillo, California, and maintains its treatment processes. During normal operation, almost 100% of the tertiary-treated effluent is beneficially reused for crop and landscape irrigation. CWD operates and maintains the recycled water distribution system and conducts training/inspections of individual user sites. The Camrosa WRF may also discharge recycled water to Calleguas Creek or to the Pacific Ocean via the Salinity Management Pipeline (SMP) when the demand for recycled water is low.

The production and use of recycled water from the Camrosa WRF are regulated under Order No. R4-2019-0118, adopted by the Regional Water Board on October 10, 2019. Discharge to the Pacific Ocean via the Calleguas Municipal Water District SMP is also regulated under separate WDRs and National Pollutant Discharge Elimination System (NPDES) permit (NPDES No. CA0064521). This Order regulates the Facility's surface water discharges of wastewater to Calleguas Creek, a water of the United States, under the federal NPDES program.

The Discharger was previously regulated by Order No. R4-2014-0210 and NPDES Permit No. CA0059501 adopted on November 06, 2014, as amended on July 09, 2015 by Order No. R4-2014-0210-A01. The 2104 Order expired on December 31, 2019.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits. The Discharger filed a report of waste discharge (ROWD) and applied for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on June 19, 2019. Supplemental information was requested on July 18, 2019 and received on August 27, 2019. The application was deemed complete on January 24, 2020. A site visit was conducted on March 12, 2020, to observe operations and collect additional data to develop permit limitations and conditions. 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.

1.3 Concurrent with adoption of the surface water NPDES Order No. R4-2014-0210 in 2014, this Regional Water Board adopted Time Schedule Order (TSO) No. R4-2014-0211, which prescribed interim concentration-based and mass-based effluent limitations for TDS and chloride. CWD carried out all of the tasks required in the TSO and continues to monitor the concentrations of salts in the final effluent and the mass of salts removed from the watershed. CWD is required to continue reporting a salt balance in WDRs/WRRs Order No. R4-2019-0118. At this time, based on all information received, the Camrosa WRF is expected to meet the mass-based final effluent limitations in this Order, and a TSO is no longer required because this Order no longer includes concentration-based final effluent limitations for salts. The Salts TMDL only includes dry weather waste load allocations. The concentration-based wet weather final effluent limitations in the previous Order were equivalent to the WQOs in the Basin Plan and they were converted to mass-based final effluent limitations in this

Order. The wet weather final effluent limitations are still based on the Basin Plan Water Quality Objectives, but they are expressed in terms of mass instead of concentration. The Camrosa WRF is expected to meet both the wet weather and dry weather final effluent limitations in this Order because the Camrosa WRF is not expected to discharge during dry weather, and if discharge is anticipated during wet or dry weather CWD can manage the discharge to meet the mass-based limits. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

1.4. Applicable state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.

2. FACILITY DESCRIPTION

2.1. Description of Wastewater and Biosolids Treatment and Controls

2.1.1. The Camrosa WRF is an Eimco System Carrousel® denitIR® extended aeration treatment facility with a dry weather design capacity of 2.25 mgd. The facility serves a population of approximately 16,000 people and is a mixture of domestic and industrial water. The Facility has an oxidation process that provides nitrification in an aerobic zone and denitrification in an anoxic zone. The anoxic basin is attached to the carrousel and connected by inflow and outflow channels. Untreated wastewater is mainly collected from the City of Camarillo and the California State University, Channel Islands. The treatment process consists of two bar screens, headworks lift pumps, two separate carrousels for nitrification and denitrification, secondary clarification, up-flow sand filtration, chlorination, and impoundment for reclamation.

2.1.2. The following are brief descriptions of the major unit processes, operations, and/or equipment:

Screening: Two bar screens mechanically remove approximately 700 cubic feet of large debris per month from the waste stream. This material is sent to a landfill for disposal.

Anoxic Basin: Influent is pumped through a splitter at the headworks where it enters one of two anoxic basins where denitrification occurs. The water entering the anoxic basin is devoid of oxygen and rich in nitrates which bacteria consume to produce nitrogen gas that is released to the atmosphere. After denitrification, the water is sent to the extended aeration carrousels.

Carrousels: Upon entering the carrousels, the water is aerated by four large diameter impellers that supply oxygen to the water to begin the nitrification process. The oxygen is consumed as the mixed liquor travels through the carousels and as the flow reaches the end of the carousel, the water becomes oxygen deficient. At this point of the process the flow may either continue through the extended aeration carrousel or it is returned to the anoxic basin.

Secondary Clarification: Wastewater leaves the carrousels and enters a pair of clarifiers where sludge settling, and clarification of the wastewater is achieved.

Tertiary Filtration: The filtration process consists of 10 Parkson® up-flow, continuous backwash, sand filters that remove any floc particles remaining in the water after clarification.

Chlorination: Sodium hypochlorite is added to the wastewater immediately prior to the chlorine contact basin for disinfection and a flash mixer evenly distributes the disinfectant. The chlorinated water enters a 126,000-gallon chlorine contact chamber which provides a minimum free chlorine contact time of 59 mg-min/L, a free chlorine modal contact time of 59 minutes, and a minimum free chlorine residual of 1.0 mg/L at the chlorine contact chamber outlet at all times.

Dechlorination: The disinfected water enters an on-site flow stabilization holding pond where the surrounding environment assists in the dissipation of chlorine.

Distribution: At the effluent pump station the treated water either leaves the plant to be used by local agricultural operations or it is diverted to an on-site booster station providing CSUCI with recycled water. Excess effluent is impounded for later use in two effluent holding ponds about three miles from the plant.

Solids handling: Bar screenings are hauled off-site for disposal in a landfill. Sludge from the secondary clarifiers is either returned to the influent flow splitter or transferred to drying beds and then hauled away for additional processing to an off-site composting facility in Bakersfield, CA.

2.2. Discharge Points and Receiving Waters

The Discharger typically recycles 100% of its effluent for crop and landscape irrigation. A portion of this water is also stored in storage ponds where percolation into the groundwater basin may occur. The discharge of treated effluent to Calleguas Creek only occurs during wet weather when there is little demand for irrigation water and the storage ponds are at or near capacity. During these conditions, treated wastewater is discharged by gravity flow from Discharge Point 001 to Calleguas Creek. Discharge Serial No. 001 has the approximate coordinates: Latitude 34.181389 North, Longitude 119.028611 West. No effluent has been discharged to Calleguas Creek from this facility since 2005.

Calleguas Creek is a water of the United States that conveys floodwater and urban runoff, along with treated wastewater. Groundwater recharge occurs incidentally in unlined areas of Calleguas Creek, where the underlying sediments are highly transmissive to water as well as pollutants. The watershed supports a diversity of wildlife. Threatened and endangered species such as the peregrine falcon, least tern, light-footed clapper rail, and the brown pelican are found in Calleguas Creek and Mugu Lagoon.

2.3. Summary of Existing Requirements and SMR Data

The Camrosa WRF has not discharged to Calleguas Creek since 2005 and all tertiary-treated wastewater from this facility has been recycled. Effluent water quality monitoring has therefore not been conducted since 2005. However, CWD has performed monitoring required in the Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) of Order No. R4-2019-0118. Effluent limitations and discharge specifications 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 between November 2014 and September 2019 are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data for Order No. R4-2014-0210

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
$BOD_5$20°C	mg/L	20	30	45	8.3	12.9	12.9
Total Suspended Solids (TSS)	mg/L	15	40	45	5.2	8.4	8.4
Oil and Grease	mg/L	10	---	15	<5	---	<5
Settleable Solids	mL/L	0.1	---	0.3	<0.1	---	<0.1
Total Residual Chlorine	mg/L	---	---	0.1	---	---	---
Total Dissolved Solids	mg/L	850	---	---	1199	---	1199
Chloride	mg/L	190	---	---	287	---	287
Sulfate	mg/L	250	---	---	246	---	246
Boron	mg/L	1.0	---	---	0.6	---	0.6
Nitrate-N	mg/L	---	---	9	8.4	---	8.4
Nitrite-N	mg/L	---	---	0.9	<0.0012	---	<0.0012
Ammonia N	mg/L	3.0	---	7.2	<0.1	---	<0.1
Turbidity	NTU	---	---	---	1.9	---	1.9
MBAS	mg/L	0.5	---	---	0.11	---	0.11
CTAS	mg/L	---	---	---	---	---	---
Antimony	µg/L	---	---	---	0.78	---	0.78
Arsenic	µg/L	---	---	---	3.1	---	3.1
Beryllium	µg/L	---	---	---	<0.0002	---	<0.0002
Cadmium	µg/L	---	---	---	<0.001	---	<0.001
Chromium III	µg/L	---	---	---	1.5	---	1.5
Chromium VI	mg/L	---	---	---	0.3	---	0.3
Copper	µg/L	27.0	---	27.4	0.0081	---	0.0081
Lead	µg/L	---	---	---	0.0016	---	0.0016
Mercury	µg/L	---	---	---	0.00001	---	0.00001
Nickel	µg/L	149	---	858	0.055	---	0.055
Selenium	µg/L	---	---	---	0.0021	---	0.0021
Silver	µg/L	---	---	---	<0.001	---	<0.001
Thallium	µg/L	---	---	---	<0.0002	---	<0.0002
Zinc	µg/L	---	---	---	0.061	---	0.061
Cyanide	µg/L	---	---	---	<0.01	---	<0.01
2,3,7,8-TCDD (Dioxin)	pg/L	---	---	---	<5	---	<5
Acrolein	µg/L	---	---	---	<5	---	<5
Acrylonitrile	µg/L	---	---	---	<2	---	<2
Benzene	µg/L	---	---	---	<0.5	---	<0.5

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Bromoform	µg/L	---	---	---	53.9	---	53.9
Carbon Tetrachloride	µg/L	0.49	---	0.98	<0.5	---	<0.5
Chlorobenzene	µg/L	---	---	---	<0.5	---	<0.5
Chlorodibromomethane	µg/L	33	---	68	120	---	120
Chloroethane	µg/L	---	---	---	<0.5	---	<0.5
2-chloroethylvinyl ether	µg/L	---	---	---	<10	---	<10
Chloroform	µg/L	---	---	---	57.2	---	57.2
Bromodichloromethane	µg/L	43	---	92	74.9	---	74.9
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	---	---	---	<1	---	<1
Methyl Chloride	µg/L	---	---	---	<0.5	---	<0.5
Methylene Chloride	µg/L	---	---	---	<0.5	---	<0.5
1,1,2,2-tetrachloroethane	µg/L	---	---	---	<0.5	---	<0.5
Tetrachloroethylene	µg/L	---	---	---	<0.5	---	<0.5
Toluene	µg/L	---	---	---	2.14	---	2.14
1,2-trans-dichloroethylene	µg/L	---	---	---	<0.5	---	<0.5
1,1,1-trochloroethane	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	---	---	---	<1.9	---	<1.9
2,4-dichlorophenol	µg/L	---	---	---	<1.9	---	<1.9
2,4-dimethylphenol	µg/L	---	---	---	<1.9	---	<1.9
2-Methyl-4,6-dinitrophenol	µg/L	---	---	---	<0.93	---	<0.93
2,4-dinitrophenol	µg/L	---	---	---	<4.7	---	<4.7
2-Nitrophenol	µg/L	---	---	---	<1.9	---	<1.9
4-nitrophenol	µg/L	---	---	---	<1.9	---	<1.9
3-methyl-4-chlorophenol	µg/L	---	---	---	<0.93	---	<0.93
Pentachlorophenol	µg/L	---	---	---	<1.9	---	<1.9
Phenol	µg/L	---	---	---	<0.93	---	<0.93
2,4,6-trichlorophenol	µg/L	---	---	---	<0.93	---	<0.93
Acenaphthene	µg/L	---	---	---	<0.93	---	<0.93
Acenaphthylene	µg/L	---	---	---	<0.93	---	<0.93
Anthracene	µg/L	---	---	---	<0.93	---	<0.93
Benzidene	µg/L	---	---	---	<9.3	---	<9.3
Benzo(a)Anthracene	µg/L	---	---	---	<0.93	---	<0.93
Benzo(a)Pyrene	µg/L	---	---	---	<0.93	---	<0.93
Benzo(b)Fluoranthene	µg/L	---	---	---	<0.93	---	<0.93
Benzo(ghi)Perylene	µg/L	---	---	---	<0.93	---	<0.93
Benzo(k)Fluoranthene	µg/L	---	---	---	<0.93	---	<0.93
Bis(2-chloroethoxy) Methane	µg/L	---	---	---	<0.93	---	<0.93
Bis(2-chloroethyl) Ether	µg/L	---	---	---	<0.93	---	<0.93
Bis(2-Chloroisopropyl) Ether	µg/L	---	---	---	<0.93	---	<0.93
Bis(2-ethylhexyl) Phthalate	µg/L	---	---	---	<1.9	---	<1.9

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
4-Bromophenyl Phenyl Ether	µg/L	---	---	---	<0.93	---	<0.93
Butylbenzyl Phthalate	µg/L	---	---	---	<1.9	---	<1.9
2-Chloronaphthalene	µg/L	---	---	---	<0.93	---	<0.93
4-Chlorophenylphenyl Ether	µg/L	---	---	---	<0.93	---	<0.93
Chrysene	µg/L	---	---	---	<0.93	---	<0.93
Dinbenzo(a,h) Anthracene	µg/L	---	---	---	<0.93	---	<0.93
1,2-Dichlorobenzene	µg/L	---	---	---	<0.93	---	<0.93
1,3-Dichlorobenzene	µg/L	---	---	---	<0.93	---	<0.93
1,4-Dichlorobenzene	µg/L	---	---	---	<0.93	---	<0.93
3,3'-Dichlorobenzidene	µg/L	---	---	---	<0.93	---	<0.93
Diethyl Phthalate	µg/L	---	---	---	<0.93	---	<0.93
Dimethyl Phthalate	µg/L	---	---	---	<0.93	---	<0.93
Di-n-butyl Phthalate	µg/L	---	---	---	<1.9	---	<1.9
2,4-Dinitrotoluene	µg/L	---	---	---	<0.93	---	<0.93
2,6-Dinitrotoluene	µg/L	---	---	---	<0.93	---	<0.93
Di-n-octyl Phthalate	µg/L	---	---	---	<0.93	---	<0.93
1,2-Diphenylhydrazine	µg/L	---	---	---	<0.93	---	<0.93
Fluoranthene	µg/L	---	---	---	<0.93	---	<0.93
Fluorene	µg/L	---	---	---	<0.93	---	<0.93
Hexachlorobenzene	µg/L	---	---	---	<0.93	---	<0.93
Hexachlorobutadiene	µg/L	---	---	---	<0.93	---	<0.93
Hexachlorocyclopentadiene	µg/L	---	---	---	<0.93	---	<0.93
Hexachloroethane	µg/L	---	---	---	<0.93	---	<0.93
Indeno(1,2,3-cd) Pyrene	µg/L	---	---	---	<0.93	---	<0.93
Isophorone	µg/L	---	---	---	<0.93	---	<0.93
Naphthalene	µg/L	---	---	---	<0.93	---	<0.93
Nitrobenzene	µg/L	---	---	---	<0.93	---	<0.93
N-Nitrosodimethylamine	µg/L	---	---	---	<1.9	---	<1.9
N-Nitrosodi-n-Propylamine	µg/L	---	---	---	<0.93	---	<0.93
N-nitrosodiphenylamine	µg/L	---	---	---	<0.93	---	<0.93
Phenanthrene	µg/L	---	---	---	<0.93	---	<0.93
Pyrene	µg/L	---	---	---	<0.93	---	<0.93
1,2,4-trichlorobenzene	µg/L	---	---	---	<0.93	---	<0.93
Aldrin	µg/L	---	---	---	<0.047	---	<0.047
Alpha-BHC	µg/L	---	---	---	<0.047	---	<0.047
Beta-BHC	µg/L	---	---	---	<0.047	---	<0.047
Gamma-BHC (Lindane)	µg/L	---	---	---	<0.047	---	<0.047
Delta-BHC	µg/L	---	---	---	<0.047	---	<0.047
Chlordane	µg/L	0.00059	---	0.0012	<0.047	---	<0.047
4,4'-DDT	µg/L	0.00059	---	0.0012	<0.047	---	<0.047
4,4'-DDE	µg/L	0.00059	---	0.0012	<0.047	---	<0.047
4,4'-DDD	µg/L	0.00084	---	0.0017	<0.047	---	<0.047
Dieldrin	µg/L	0.00014	---	0.00028	<0.047	---	<0.047
Alpha-Endosulfan	µg/L	---	---	---	<0.047	---	<0.047
Beta-Endosulfan	µg/L	---	---	---	<0.047	---	<0.047
Endosulfan Sulfate	µg/L	---	---	---	<0.047	---	<0.047
Endrin	µg/L	---	---	---	<0.047	---	<0.047
Endrin Aldehyde	µg/L	---	---	---	<0.047	---	<0.047
Heptachlor	µg/L	---	---	---	<0.047	---	<0.047

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Heptachlor Epoxide	µg/L	---	---	---	<0.047	---	<0.047
PCBs as Aroclors	µg/L	0.00017	---	0.00034	<0.047	---	<0.047
Toxaphene	µg/L	0.00016	---	0.00033	<1.9	---	<1.9
Chlorpyrifos	µg/L	0.0133	---	0.024	---	---	---
Diazinon	µg/L	0.1	---	0.1	---	---	---
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % effect < 50	---	---	---

2.4. **Compliance Summary**

CWD did not discharge during the previous permit cycle and therefore did not have any final effluent limitation violations; however, several reports were submitted past the due date during the permit cycle.

2.5. **Planned Changes**

The Discharger installed covers on the chlorine contact chamber in March 2017 and the secondary clarifiers in May 2018 to help reduce the chlorine needed for disinfection.

In addition, the Discharger conducted a chlorine disinfection study in 2014 that demonstrates that the Camrosa WRF can use alternative chlorine disinfection standards to meet the requirements in Title 22 of the California Code of Regulations (22 CCR) § 60301.230, thus allowing a shorter contact time in the chlorine contact basin and increasing its design flow rate. CWD previously met the 22 CCR disinfection requirements by ensuring the disinfection process following filtration provides a contact time of 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes. 22 CCR provides an alternative to this disinfection requirement if it can be demonstrated that the alternative removes 99.999% of the plaque-forming units of the F-specific bacteriophage MS2, or polio virus in the wastewater. CWD was successful in demonstrating the alternative disinfection requirements could be met using a free chlorine contact time of 59 milligram-minutes per liter and a chlorine modal contact time of 59 minutes. As a result, CWD was able to increase the capacity of the chlorine contact basin to 3.24 mgd by decreasing the chlorine contact time. Since the chlorine contact basin no longer controls the design capacity, the secondary clarifier with a capacity of 2.25 mgd is now the limiting unit process and controls the design capacity. On May 04, 2015 the State Water Resources Control Board, Division of Drinking Water (DDW) conditionally approved the Discharger's updated Engineering Report, which includes a treatment plant capacity analysis using the alternative disinfection requirements developed during the study. The capacity analysis concludes that the Camrosa WRF may be rerated at 2.25 mgd (the capacity of the secondary clarifiers) without compromising treatment quality.

The Discharger is currently conducting a sequential chlorination study to investigate its effectiveness in reducing trihalomethane formation. If proven to be successful, the Discharger will determine the best location and install a permanent ammonia feed line to the chlorine contact chamber.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 1 subject to the WDRs in this Order.

3.2. California Environmental Quality Act (CEQA)

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

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

3.3.1. **Water Quality Control Plan.** The Water Quality Control Plan for the Los Angeles Region (Basin Plan) 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.

Beneficial uses applicable to Calleguas Creek are as follows:

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

Hydrologic Unit Code (HUC)	Receiving Water Name	Beneficial Use(s)
180701030107 (formerly Calwater Hydro Unit 403.12)	Calleguas Creek Reach 3	**Existing:** Industrial service supply (IND), industrial process supply (PROC), agricultural supply (AGR), groundwater recharge (GWR), contact (REC-1), and non-contact recreation (REC-2), warm freshwater habitat (WARM), and wildlife habitat (WILD); **Potential:** Municipal and domestic water supply (MUN)
180701030107 (formerly Calwater Hydro Unit 403.11)	Calleguas Creek Reach 2	**Existing:** AGR, GWR, freshwater replenishment (FRSH), REC-1, REC-2, WARM, cold freshwater habitat (COLD), WILD, rare, threatened, or endangered species (RARE), and wetland habitat (WET) **Potential:** MUN
180701030102 (formerly Calwater Hydro Unit 403.11)	Calleguas Creek Reach 1 (formerly Mugu Lagoon)	**Existing:** Navigation (NAV), REC-2, commercial and sport fishing (COMM), estuarine habitat (EST), marine habitat (MAR), WILD, preservation of biological habitats (BIOL), RARE, migration of aquatic organisms (MIGR), spawning, reproduction,

Hydrologic Unit Code (HUC)	Receiving Water Name	Beneficial Use(s)
		and/or early development (SPWN), shellfish harvesting (SHELL), and WET **Potential:** REC-1

The potential municipal and domestic supply (p*MUN) beneficial use for the water body 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.

Beneficial uses of the receiving groundwaters are as follows:

Table F-4. Basin Plan Beneficial Uses - Groundwaters

Receiving Water Name	MUN	IND	PROC	AGR	AQUA
Pleasant Valley (Department of Water Resources (DWR) Basin No. 4-6)	---	---	---	---	---
Confined Aquifer	Existing	Existing	Existing	Existing	---
Unconfined Aquifer	Potential	Existing	Existing	Existing	---
Oxnard	---	---	---	---	---
Confined Aquifer	Existing	Existing	Existing	Existing	---
Unconfined Aquifer	Existing	Potential	---	Existing	---
Oxnard Forebay	Existing	Existing	Existing	Existing	---

3.3.2. **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.

3.3.3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water

Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

3.3.4. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.

3.3.5. **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 section 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.

3.3.6. **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, and percent removal of BOD and TSS. Restrictions on BOD and TSS, are discussed in section 4.2.2. 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 section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA except for the final effluent limitations for MBAS, turbidity, radioactivity, and total coliform, which are based on the Basin Plan's incorporation of the drinking water MCLs. The final effluent limitations for these pollutants are described in additional detail in section 4.3.2. of the Fact Sheet.

3.3.7. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's

antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.

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

3.3.9. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

3.3.10. **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 Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change from the State Water Board. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

3.3.11. **Water Recycling.** In accordance with statewide policies concerning water reclamation[2], this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of stormwater and dry-weather urban runoff. However, those recycling efforts shall consider the necessity of a water rights 1211 application which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water body. When the facility starts using recycled water, these reports shall be included in the annual report submittal as described in the MRP.

3.3.12. **Monitoring and Reporting.** 40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to

[2] See, e.g., Water Code 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, 2013-0003, and 2018-0057 (Recycled Water Policy).

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.

3.3.13. **Sewage Sludge and Biosolids.**
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 by USEPA to implement this program. Therefore, this Order does not prescribe requirements for sewage sludge/biosolids (40 CFR part 503), but merely provides those requirements for informational purposes only in Attachment H. USEPA is the implementing agency, not the Regional Water Board.

3.3.14. **Pretreatment Requirements.** The application of pretreatment requirements is monitored by the Discharger and the permit will be reopened when additional pretreatment requirements are determined to be applicable to the discharge.

3.3.15. **Mercury Provisions.** The State Water Board adopted "*Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California-Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*" (Mercury Provisions) through Resolution No. 2017-0027, which was approved by OAL on June 28, 2017 and became effective upon USEPA approval on July 14, 2017.

The Mercury Provisions do not apply if there was an existing TMDL for mercury prior to the effective date of the ISWEBE Mercury Provision. Since the Calleguas Creek Metals TMDL was in effect prior to the ISWEBE Mercury Provisions, the ISWEBE Mercury Provisions do not apply to the Camrosa WRF.

3.3.16. **Bacteria Provisions.** The State Water Board adopted "*Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Bacteria Provisions and Water Quality Standards Variance Policy*" through Resolution No. 2018-0038, which was approved by OAL on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The Bacteria Provisions establish *Escherichia coli* (*E. coli*) as the sole indicator of pathogens in freshwater. These *E. coli* water quality objectives supersede any numeric water quality objectives for bacteria for the protection of the REC-1 beneficial use in Regional Water Board Basin Plans prior to the effective date of the Bacteria Provisions, except in certain circumstances, such as where there are existing final effluent limitations based on Title 22 requirements that are more stringent than ISWEBE Bacteria Provisions. Since the total coliform final effluent limitations are more stringent than the water quality objectives established through the ISWEBE Bacteria Provisions, the Title 22 based effluent limitations are retained. In addition, USEPA states in their "NPDES Water Quality Based Permit Limits for Recreational Water Quality Criteria (2015)" that they expect the direct application of criteria values at the end-of-pipe approach where the objective is applied directly as permit limits at the discharge point. Since the effluent limitations are applied at the discharge point (end-of-pipe) based on Title 22, which are more stringent than the ISWEBE Bacteria Provisions, additional receiving water limitations are not established.

3.4. **Impaired Water Bodies on the CWA section 303(d) List**

The State Water Board proposed the California 2014 and 2016 Integrated Report based on a compilation of the Regional Water Boards' Integrated Reports. These Integrated Reports contain both the Clean Water Act (CWA) section 305(b) water quality assessment and section 303(d) list of impaired waters. In developing the Integrated Reports, the Water Boards solicit data, information and comments from the public and other interested persons. On October 03, 2017 the State Water Board adopted the CWA Section 303(d) List portion of the State's 2014 and 2016 Integrated Report (State Water Board Resolution No. 2017-0059). On April 06, 2018, the USEPA approved California's 2014 and 2016 Integrated Report. The CWA section 303(d) List can be found at the following link: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

Calleguas Creek is included in California's 2014 and 2016 Integrated Report and the following are the identified pollutants impacting the receiving waters for Camrosa WRF:

Calleguas Creek Reach 3 (Potrero Road upstream to confluence with Conejo Creek on 1998 303(d) List) - Calwater Watershed 40312000

Pollutants: Ammonia, chlordane, chloride, DDT, dieldrin, indicator bacteria, nitrate and nitrite, polychlorinated biphenyls (PCBs), sedimentation/siltation, total dissolved solids, toxaphene, and trash.

Calleguas Creek Reach 2 (Estuary to Potrero Road – was Calleguas Creek Reaches 1 and 2 on 1998 303(d) List) – Calwater Watershed 40312000

Pollutants: Ammonia, chemA, chlordane, copper, DDT, dieldrin, endosulfan, indicator bacteria, PCBs, sedimentation/siltation, toxaphene, toxicity, and trash.

3.5. **Other Plans, Polices and Regulations**

3.5.1. Climate Change Adaptation and Mitigation

On March 07, 2017 the State Water Board adopted a resolution in recognition of the challenges posed by climate change that requires a proactive approach to climate change in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance (Resolution No. 2017-0012). The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions, by giving direction to the State Water Board divisions and encouraging coordination with the Regional Water Boards. In addition to the State Water Board's resolution (No. 2017-0012), the Los Angeles Water Board adopted "A Resolution to Prioritize Actions to Adapt and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" (Resolution No. R18-004) on May 10, 2018. The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board's programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be mitigated on a short-term and long-term basis by each of the Los Angeles Water Board's programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated beneficial uses. This Order

contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Regional Water Boards' resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Regional Water Board for the Executive Officer's approval no later than 12 months after the adoption of this Order. The Climate Change Plan shall include an assessment of short and long term vulnerabilities of facilities and operations as well as plans to address vulnerabilities of collection systems, facilities, treatment systems, and outfalls for predicted impacts in order to ensure that facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level (where applicable), wildfires, storm surges, and back-to-back severe storms that are expected to become more frequent.

3.5.2. **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 the 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.

3.5.3. **Title 22 of the California Code of Regulations (CCR Title 22).** The State Water Resources Control Board, Division of Drinking Water, 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.

3.5.4. **Secondary Treatment Regulations.** 40 CFR part 133 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.

3.5.5. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for stormwater 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 is not applicable to the Camrosa WRF because the facility either directs stormwater directly to the headworks or captures the stormwater from the facility in a retention pond and pumps it to the headworks for treatment. The treated stormwater mixed with the domestic wastewater is required to be in compliance with the NPDES permit limitations that are more stringent than the stormwater effluent limitations.

3.5.6. **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 Discharger must comply with State Water Board Water Quality Order No. 2006-0003-DWQ, Statewide *General Waste Discharge Requirements for Sanitary Sewer Systems* ((SSS WDRs) as amended by State Water Board Order No. WQ 2013-0058-exec and any subsequent order updating these requirements. These statewide WDRs require public agencies that own or operate sanitary sewer systems with greater than one mile of sewer lines to enroll for coverage, comply with requirements to 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 SSS WDRs, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)),

report any noncompliance (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 in sections 6.3.3.b. (Spill Cleanup Contingency Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs 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 SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative. The requirements of this permit are more stringent that the SSS WDRs because in addition to the SSS WDRs requirements, this NPDES permit requires water quality monitoring of the receiving water when the spill reaches the surface water.

3.5.7. **Watershed Management.** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region. Information about watersheds in the region can be obtained at the Regional Water Board's website at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml. 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 POTWs within the Calleguas Creek Watershed (CCW) have developed a watershed monitoring program to implement the requirements for monitoring, conducting special studies, and implementing actions to reduce discharges of pollutants covered by the TMDLs. This watershed monitoring program has been approved by the Regional Water Board. The responsible parties to the CCW TMDLs have signed a Memorandum of Agreement to jointly fund and complete the implementation of the TMDL Calleguas Creek Watershed Monitoring Program (CCWTMP), which began in August 2008. The CCWTMP was created to better facilitate a coordinated monitoring effort where multiple TMDL monitoring requirements could be addressed via a single program that would carry out and manage all aspects of the monitoring activities. This monitoring program has been developed to easily integrate new TMDL monitoring efforts as TMDLs are adopted and/or special study monitoring efforts are required.

3.5.8. **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 water body for each pollutant of concern. TMDLs identify the maximum amount of pollutants that can be discharged to water bodies without causing violations of water quality standards.

a. **Calleguas Creek Watershed Salts TMDL.**

On October 4, 2007, the Regional Water Board adopted the Calleguas Creek Salts TMDL, Resolution No. R4-2007-016, *Amendment to the Water Quality Control Plan – Los Angeles Region to Incorporate the Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) in the Calleguas Creek Watershed*. This Resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on May 20, 2008, November 6, 2008, and December 2, 2008, respectively. This TMDL became effective on December 2, 2008.

The Salts TMDL establishes dry-weather final WLAs for the Camrosa WRF for chloride, TDS, and sulfate. The WLAs for chloride contained in the Regional Water Board's Salts TMDL superseded the WLAs for chloride contained in the 2002 USEPA-promulgated Chloride TMDL. The new WLAs were implemented as final effluent limitations in Order No. R4-2014-0210.

b. **Calleguas Creek Watershed Nitrogen Compounds and Related Effects TMDL.** On October 24, 2002, the Regional Water Board adopted Resolution No. 02-017, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in Calleguas Creek* (Nitrogen Compounds TMDL). This Resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on March 19, 2003, June 5, 2003, and June 20, 2003, respectively.

On September 11, 2008, the Regional Water Board adopted Resolution No. R4- 2008-009, *Amendment to the Water Quality Control Plan for the Los Angeles Region through revision of the Waste Load Allocation for the Calleguas Creek Watershed Nitrogen Compounds and Related Effects Total Maximum Daily Load* (revised Nitrogen Compounds TMDL). This Basin Plan amendment corrects the mass-based daily WLAs for ammonia based upon an MDEL, and updates the WLAs to be consistent with the current practice of recognizing that the flow is variable. The corrected mass-based WLAs for ammonia are based on the maximum daily effluent limit and the actual POTW effluent flow rate at the time the monitoring is conducted. This Order includes effluent limitations for nitrogen compounds established by the revised Nitrogen Compounds TMDL which became effective on October 15, 2009.

c. **Calleguas Creek Toxicity, Chlorpyrifos, and Diazinon TMDL.** On July 7, 2005, the Regional Water Board adopted Resolution No. R4-2005-009, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Toxicity, Chlorpyrifos, and Diazinon in Calleguas Creek, its Tributaries, and Mugu Lagoon* (Toxicity TMDL). This Resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on September 22, 2005, December 22, 2005, and March 14, 2006, respectively. This Order includes effluent limitations for chlorpyrifos and diazinon established by the Toxicity TMDL which became

effective on March 24, 2006. The toxicity WLA is implemented in accordance with the USEPA, State Water Board, and Regional Water Board resolutions, guidance, and policy at the time of permit issuance or renewal.

d. **Calleguas Creek OC Pesticides and PCBs TMDL**. On July 7, 2005, the Regional Water Board adopted Resolution No. R4-2005-010, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation in Calleguas Creek, its Tributaries, and Mugu Lagoon* (OC Pesticides and PCBs TMDL). This Resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on September 22, 2005, January 20, 2006, and March 14, 2006, respectively. This Order includes effluent limitations for OC pesticides and PCBs based on the final WLAs established by the OC Pesticides and PCBs TMDL, which became effective on March 24, 2006.

e. **Calleguas Creek Watershed Metals TMDL**. On June 8, 2006, the Regional Water Board adopted Resolution No. R4-2006-012, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Calleguas Creek, its Tributaries, and Mugu Lagoon* (Metals TMDL). This Resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on October 25, 2006, February 2, 2007, and March 26, 2007, respectively. This Order includes effluent limitations for metals consistent with the assumptions of the Metals TMDL which became effective on March 26, 2007.

   On November 09, 2006 the Regional Water Board adopted Resolution No. R4-2006-022, *Amendment to the Water Quality Control Plan for the Los Angeles Region Water Effects Ratios (WERs) for Copper in Lower Calleguas Creek and Mugu Lagoon Located in the Calleguas Creek Watershed, Ventura County (Copper WER).* This resolution was approved by the State Water Board, Office of Administrative Law, and USEPA, on June 19, 2007, August 16, 2007, and August 23, 2007, respectively. The WLA for copper for the Camrosa WRF does not include a WER, therefore this TMDL update is not applicable to the Camrosa WRF.

   On October 13, 2016 the Regional Water Board adopted Resolution No. R16-007, Amendment to the Water Quality Control Plan for the Los Angeles Region to *Revise the Total Maximum Daily Load for Metals and Selenium for Calleguas Creek, its Tributaries, and Mugu Lagoon*. This resolution was approved by the State Water Board, Office of Administrative Law, and USEPA on February 22, 2017, May 18, 2017, and June 08, 2017, respectively.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include

applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

The variety of potential pollutants found in the Facility discharges presents 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 a pollutant of concern for protection and evaluation of narrative Basin Plan Objectives.

4.1. **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 Point 001 only. It does not authorize any other type of discharges.

4.2. **Technology-based Effluent Limitations**

4.2.1. **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 Discharger 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.

4.2.2. **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 and TSS. 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 of BOD and TSS than the secondary standards. This Facility is also subject to TBELs contained in similar NPDES permits, for similar facilities, based on the treatment level available by tertiary treated wastewater treatment systems. These tertiary-treatment TBELs are therefore based on the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 for the City of Woodland. 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 Camrosa WRF can meet these limitations with the existing treatment processes in place at the POTW.

Further, mass-based effluent limitations are based on a design flow rate of 2.25 mgd. The removal efficiency for BOD and TSS is set at the minimum level attainable by secondary treatment technology. The following table summarizes the TBELs applicable to the Facility:

Table F-5. Summary of TBELs

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5$20°C	mg/L	20	30	45	---	---
$BOD_5$20°C	lbs/day	380	560	840	---	---
TSS	mg/L	15	40	45	---	---
TSS	lbs/day	280	750	840	---	---
Removal Efficiency for BOD and TSS	%	≥85	---	---	---	---

Additional reasoning upon which the foregoing limits are based is set forth below:

$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, in 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.

The Camrosa WRF provides tertiary treatment so 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.

In addition to having mass-based and concentration-based effluent limitations for BOD and TSS, the Camrosa WRF also has a percent removal requirement for these two constituents. In accordance with 40 CFR sections 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.

4.3. **Water Quality-Based Effluent Limitations (WQBELs)**

4.3.1. **Scope and Authority**

CWA Section 301(b) and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. Where appropriate, the Regional Water Board has considered the factors listed in Water Code section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed beginning in section 4.3.2. of this Fact Sheet.

Section 122.44(d)(1)(i) of 40 CFR 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, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

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

The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of Calleguas Creek affected by the discharge have been described previously in this Fact Sheet. The Basin Plan also specifies narrative and numeric WQOs applicable to surface water as described below:

a. **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 final effluent imitations for oil and grease include average monthly limitations of 10 mg/L and 190 lbs/day, and maximum daily limitations of 15 mg/L and 280 lbs/day. These limitations are based on the Basin Plan (page 3-34) 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. Both limits were included in the previous permit (Order No. R4-2014-0210) and the Facility has been able to meet both limits. The limits are continued herein.

b. **Residual Chlorine**

Disinfection of wastewaters with chlorine produces a residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-30) 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 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. Based on the foregoing, the d final effluent limitation for total residual chlorine is a daily maximum of 0.1 mg/L.

c. **TDS, Chloride, Sulfate, and Boron**

During wet weather, the limits for TDS (15,950 lbs/day), chloride (2,810 lbs/day), and sulfate (4,690 lbs/day) are based on the design flow rate and the water quality objectives found in Basin Plan Table 3-10 (page 3-36) for the Calleguas Creek watershed (above Potrero Road) which are: TDS = 850 mg/L, chloride = 150 mg/L, and sulfate = 250 mg/L. During dry weather, the limits for TDS (15,950 lbs/day), chloride (2,810 lbs/day), and sulfate (4,690 lbs/day) are based on the WLAs contained in the Calleguas Creek Salts TMDL and the design flow rate. The Calleguas Creek Salts TMDL does not assign WLAs for Boron to Camrosa WRF. The effluent limits for Boron apply year-round. The concentration-based final effluent limitation for boron is equivalent to the 1.0 mg/L water quality objective in the Basin Plan and the mass-based final effluent limitation for boron of 19 lbs/day is calculated using the water quality objective in the Basin Plan and the design flow rate of the Facility.

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

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. The effluent limitation for MBAS is included to protect the existing GWR beneficial use that is designated for the surface receiving waters downstream of the discharge as well as the existing MUN beneficial use of the underlying groundwater basin. Water from the soft-bottomed Conejo Creek incidentally recharges the underlying Pleasant Valley Groundwater Basin. The Pleasant Valley aquifer is an existing source of potable water for CWD's service area. Section 1.3, Step 7 of the SIP lists the type of information that can be used with the permit writer's "best

professional judgement" to determine RP. Page 7 of the SIP states, "Information that may be used to aid in determining if a water quality-based effluent limitation is required includes: the facility type, the discharge type, solids loading analysis, lack of dilution, history of compliance problems, potential toxic impact of discharge, fish tissue residue data, water quality beneficial uses of the receiving water, CWA 303(d) listing of the pollutant, the presence of endangered or threatened species or critical habitat, and other information."

The MBAS limit also protects the recreational, aquatic life, and wildlife beneficial uses of the surface receiving water downstream of the discharge against foam and implements the Basin Plan WQO for floating material. Volume 44, No. 179 of the Federal Register (on page 53467) explains that foaming is a characteristic of water which has been contaminated by the presence of detergents and similar substances. The 0.5 mg/L limit for foaming agents is based on the fact that at higher concentrations, the water may exhibit undesirable taste and foaming properties.

CWD relies on their groundwater as a source of potable water supply for its residents and operates a regional desalter to treat the brackish groundwater prior to distributing the potable water to its customers. The desalter provides a high-quality source of drinking water to CWD's service area while decreasing their reliance on imported water. Since the groundwater is an important component of the drinking water supply for CWD's service area, using the MCL as an effluent limitation for this facility is necessary to ensure the quality of the groundwater is protected.

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. Therefore, an effluent limitation is required.

Cobalt thiocyanate active substances (CTAS) are monitored in the same way as MBAS. The presence or absence of CTAS during sampling assists permit writers and the Discharger in diagnosing the source of floating materials, such as foam or scum, which are prohibited by the Basin Plan when they cause nuisance or adversely affect beneficial uses. There is no limitation or compliance requirement for CTAS because it has no established water quality objective.

e. **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 such as algal growth. 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 the 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).

The total inorganic nitrogen (NO_2–N + NO_3–N) water quality objective in the Basin Plan is 10 mg/L for the Calleguas Creek Watershed above Potrero Road. However, the *Calleguas Creek Nitrogen Compounds and Related Effects TMDL* (Nitrogen Compounds TMDL) for this Watershed has been in effect since July 16, 2003. Therefore, this permit includes a total inorganic nitrogen final effluent limitation of 9 mg/L, consistent with the Nitrogen Compounds TMDL.

Since the Nitrogen Compounds TMDL does not specify any mass-based WLA for nitrate plus nitrite as nitrogen, mass-based limits are not included for NO_2-N + NO_3-N.

f. **Nitrite as Nitrogen and Nitrate as Nitrogen**

The final effluent limitations for nitrite as nitrogen (NO_2-N) of 0.9 mg/L and for nitrate as nitrogen (NO_3-N) of 9 mg/L are based on the WLAs assigned to the Camrosa WRF in the Nitrogen Compounds TMDL. Since the TMDL does not specify any mass-based WLAs for nitrate as nitrogen or nitrite as nitrogen, mass-based limits are not included for either of the two constituents.

g. **Total Ammonia**

Ammonia is a pollutant routinely found in the wastewater effluent of POTWs, in landfill-leachate, as well as in runoff 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 diffuses 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. This permit includes a maximum daily effluent limitation of 7.2 mg/L and an average monthly effluent limitation of 3.0 mg/L, consistent with the Nitrogen Compounds TMDL.

h. **Bacteria Indicators**

Total 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 if the disinfection process is not operating adequately. As such, the permit contains the following effluent and receiving water limitations:

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 for CFU of 240 total coliform bacteria per 100 milliliters.

These disinfection-based effluent limitations for total coliform are for human health protection and are consistent with requirements established by the State Water Resource Control Board, Division of Drinking Water. These limits for total coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

Receiving Water Limitations

No receiving water limitations are proposed for bacteria in this Order. Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries (ISWEBE Plan) of California- Bacteria Provisions and Water Quality Standards Variance Policy, which went into effect upon USEPA approval on March 22, 2019, established *Escherichia coli* (*E. coli*) as the sole indicator of pathogens in freshwater. These *E. coli* water quality objectives supersede any numeric water quality objectives for bacteria for the protection of the REC-1 beneficial use in Regional Water Board Basin Plans prior to the effective date of the Bacteria Provisions, except in certain circumstances, such as where there are existing final effluent limitations based on Title 22 requirements that are more stringent than ISWEBE Bacteria Provisions. Since the total coliform final effluent limitations are more stringent than the water quality objectives established through the ISWEBE Bacteria Provisions, the Title 22 based effluent limitations are retained. In addition, USEPA states in their “NPDES Water Quality Based Permit Limits for Recreational Water Quality Criteria (2015)” that they expect the direct application of criteria values at the end-of-pipe, where the objective is applied directly as permit limits at the discharge point. Since the effluent limitations are applied at the discharge point (end-of-pipe) based on Title 22, which are more stringent than the ISWEBE Bacteria Provisions, additional receiving water limitations are not established.

i. **Temperature**

The Basin Plan contains the following water quality objective for temperature:

The natural receiving water temperature of all regional waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such

alteration in temperature does not adversely affect beneficial uses. Alterations that are allowed must meet the requirements below.

For waters designated WARM, water temperature shall not be altered by more than 5°F above the natural temperature. At no time shall these WARM-designated waters be raised above 80°F as a result of waste discharges.

Temperature can adversely affect beneficial uses. The 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.

It is impracticable to use a 7-day average or a 30-day average limitation for temperature because it is not adequately protective of beneficial uses. A daily maximum limitation is necessary to protect aquatic life and to implement the Basin Plan water quality objective, which states that at no time shall WARM-designated waters be raised above 80°F as a result of waste discharges.

Based on the Basin Plan Water Quality Objective, this Order contains a final effluent limitation for temperature of 80°F. The prior Order stated, "[t]he temperature of wastes discharged shall not exceed 86°F except as the result of external ambient temperature." Since there has been no discharge since 2005, there is limited data available regarding the temperature for the receiving water near the outfall and the final effluent, so it is unclear how the discharge will impact the receiving water temperature. The discharge is not expected to cause an exceedance of the Basin Plan water quality objective for temperature because the

effluent is discharged 4 feet from the water surface from a holding pond 9 feet deep, and the water acclimates to the ambient temperature before being discharged as it sits in the pond.

j. **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 3-46) and section 60301.320 of Title 22, chapter 3, “Filtered Wastewater” of the CCR.

k. **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 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 beneficial use. Therefore, this Order retains the limitation for radioactivity.

4.3.3. 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 Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses.

4.3.4. Determining the Need for WQBELs

The Regional Water Board developed WQBELs for ammonia-nitrogen, nitrite nitrogen, nitrate nitrogen, nitrate plus nitrite nitrogen, TDS, sulfate, chloride, copper, nickel, mercury, chlordane, 4,4’-DDD, 4,4’-DDE, 4,4’-DDT, dieldrin, PCBs, toxaphene, chlorpyrifos, diazinon, and chronic toxicity that have WLAs established in TMDLs. The Regional Water Board developed WQBELs for these pollutants

pursuant to 40 CFR section 122.44(d)(1)(vii), which does not require or contemplate a separate reasonable potential analysis at the time of permit development. Similarly, the SIP at Section 1.3 recognizes that a separate reasonable potential analysis at the time of permit development is not appropriate if a TMDL has been developed.

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 Discharger. The Discharger has not discharged since 2005 so the monitoring data from Waste Discharge Requirements and Water Reclamation Requirements Order No. R4-2019-0118 was used to determine reasonable potential.

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 an 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 Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, pollutants that demonstrate reasonable potential are dibromochloromethane and dichlorobromomethane because the MEC is greater than the C. The following Table summarizes results from the RPA.

Table F-6. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
1	Antimony	4300	0.78	No Sample	No	MEC<C
2	Arsenic	150	3.1	No Sample	No	MEC<C
3	Beryllium	Narrative	<0.0002	No Sample	No	MEC<C
4	Cadmium	5	<0.001	No Sample	No	MEC<C
5a	Chromium III	520		No Sample		
5b	Chromium VI	50	0.3	No Sample	No	MEC<C
6	**Copper**	**27.0**	**0.0081**	**No Sample**	**Yes**	**TMDL**
7	Lead	13	0.0016	No Sample	No	MEC<C
8	Mercury	0.051	<0.00001	No Sample	No	MEC<C
9	**Nickel**	**149**	**0.055**	**No Sample**	**Yes**	**TMDL**
10	Selenium	5	0.0021	No Sample	No	MEC<C
11	Silver	28	<0.001	No Sample	No	MEC<C
12	Thallium	2	<0.0002	No Sample	No	MEC<C
13	Zinc	120	0.061	No Sample	No	MEC<C
14	Cyanide	5.2	<0.01	No Sample	No	MEC<C
15	Asbestos	$7x10^6$ fibers/L	No Sample	No Sample	No	---
16	2,3,7,8-TCDD (Dioxin)	0.014 pg/L	<5	No Sample	No	MEC<C
17	Acrolein	780	<5	No Sample	No	MEC<C
18	Acrylonitrile	0.66	<2	No Sample	No	MEC<C
19	Benzene	71	<0.5	No Sample	No	MEC<C
20	Bromoform	360	53.9	No Sample	No	MEC<C
21	Carbon Tetrachloride	4.4	<0.5	No Sample	No	MEC<C
22	Chlorobenzene	21,000	<0.5	No Sample	No	MEC<C
23	**Dibromochloromethane**	**34**	**120**	**No Sample**	**Yes**	**MEC>C**
24	Chloroethane	No Criteria	<0.5	No Sample	No	No Criteria
25	2-chloroethyl vinyl ether	No Criteria	<10	No Sample	No	No Criteria
26	Chloroform	No Criteria	57.2	No Sample	No	No Criteria
27	**Dichlorobromomethane**	**46**	**74.9**	**No Sample**	**Yes**	**MEC>C**
28	1,1-dichloroethane	No Criteria	<0.5	No Sample	No	No Criteria
29	1,2-dichloroethane	99	<0.5	No Sample	No	MEC<C
30	1,1-dichloroethylene	3.2	<0.5	No Sample	No	MEC<C
31	1,2-dichloropropane	39	<0.5	No Sample	No	MEC<C
32	1,3-dichloropropylene	1,700	<0.5	No Sample	No	MEC<C
33	Ethylbenzene	29,000	<0.5	No Sample	No	MEC<C
34	Methyl bromide	4,000	<1	No Sample	No	MEC<C
35	Methyl chloride	No Criteria	<0.5	No Sample	No	No Criteria
36	Methylene chloride	1,600	<0.5	No Sample	No	MEC<C
37	1,1,2,2-tetrachloroethane	11	<0.5	No Sample	No	MEC<C
38	Tetrachloroethylene	8.85	<0.5	No Sample	No	MEC<C
39	Toluene	200,000	2.1	No Sample	No	MEC<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
40	Trans 1,2-Dichloroethylene	140,000	<0.5	No Sample	No	MEC<C
41	1,1,1-Trichloroethane	No Criteria	<0.5	No Sample	No	No Criteria
42	1,1,2-Trichloroethane	42	<0.5	No Sample	No	MEC<C
43	Trichloroethylene	81	<0.5	No Sample	No	MEC<C
44	Vinyl Chloride	525	<0.5	No Sample	No	MEC<C
45	2-chlorophenol	400	<1.9	No Sample	No	MEC<C
46	2,4-dichlorophenol	790	<1.9	No Sample	No	MEC<C
47	2,4-dimethylphenol	2,300	<1.9	No Sample	No	MEC<C
48	4,6-dinitro-o-resol (2-methyl-4,6-Dinitrophenol)	765	<0.93	No Sample	No	MEC<C
49	2,4-dinitrophenol	14,000	<4.7	No Sample	No	MEC<C
50	2-nitrophenol	No Criteria	<1.9	No Sample	No	No Criteria
51	4-nitrophenol	No Criteria	<1.9	No Sample	No	No Criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No Criteria	<0.93	No Sample	No	No Criteria
53	Pentachlorophenol	8.2	<1.9	No Sample	No	MEC<C
54	Phenol	4,600,000	<0.93	No Sample	No	MEC<C
55	2,4,6-trichlorophenol	6.5	<0.93	No Sample	No	MEC<C
56	Acenaphthene	2,700	<0.93	No Sample	No	MEC<C
57	Acenaphthylene	No criteria	<0.93	No Sample	No	No Criteria
58	Anthracene	110,000	<0.93	No Sample	No	MEC<C
59	Benzidine	0.00054	<9.3	No Sample	No	MEC<C
60	Benzo(a)Anthracene	0.049	<0.93	No Sample	No	MEC<C
61	Benzo(a)Pyrene	0.049	<0.93	No Sample	No	MEC<C
62	Benzo(b)Fluoranthene	0.049	<0.93	No Sample	No	MEC<C
63	Benzo(ghi)Perylene	No criteria	<0.93	No Sample	No	No Criteria
64	Benzo(k)Fluoranthene	0.049	<0.93	No Sample	No	MEC<C
65	Bis(2-Chloroethoxy) methane	No criteria	<0.93	No Sample	No	No Criteria
66	Bis(2-Chloroethyl) Ether	1.4	<0.93	No Sample	No	MEC<C
67	Bis(2-Chloroisopropyl) Ether	170,000	<0.93	No Sample	No	MEC<C
68	Bis(2-Ethylhexyl) Phthalate	4.0	<1.9	No Sample	No	MEC<C
69	4-Bromophenyl Phenyl Ether	No criteria	<0.93	No Sample	No	No Criteria
70	Butylbenzyl Phthalate	5,200	<1.9	No Sample	No	MEC<C
71	2-Chloronaphthalene	4,300	<0.93	No Sample	No	MEC<C
72	4-Chlorophenyl Phenyl Ether	No criteria	<0.93	No Sample	No	No Criteria
73	Chrysene	0.049	<0.93	No Sample	No	MEC<C
74	Dibenzo(a,h) Anthracene	0.049	<0.93	No Sample	No	MEC<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
75	1,2-Dichlorobenzene	17,000	<0.93	No Sample	No	MEC<C
76	1,3-Dichlorobenzene	2,600	<0.93	No Sample	No	MEC<C
77	1,4-Dichlorobenzene	2,600	<0.93	No Sample	No	MEC<C
78	3,3'-Dichlorobenzidine	0.077	<0.93	No Sample	No	MEC<C
79	Diethyl Phthalate	120,000	<0.93	No Sample	No	MEC<C
80	Dimethyl Phthalate	2,900,000	<0.93	No Sample	No	MEC<C
81	Di-n-Butyl Phthalate	12,000	<1.9	No Sample	No	MEC<C
82	2,4-Dinitrotoluene	9.1	<0.93	No Sample	No	MEC<C
83	2,6-Dinitrotoluene	No criteria	<0.93	No Sample	No	No Criteria
84	Di-n-Octyl Phthalate	No criteria	<0.93	No Sample	No	No Criteria
85	1,2-Diphenylhydrazine	0.54	<0.93	No Sample	No	MEC<C
86	Fluoranthene	370	<0.93	No Sample	No	MEC<C
87	Fluorene	14,000	<0.93	No Sample	No	MEC<C
88	Hexachlorobenzene	0.00077	<0.93	No Sample	No	MEC<C
89	Hexachlorobutadiene	50	<0.93	No Sample	No	MEC<C
90	Hexachlorocyclopenta-diene	17,000	<0.93	No Sample	No	MEC<C
91	Hexachloroethane	8.9	<0.93	No Sample	No	MEC<C
92	Indeno(1,2,3-cd)Pyrene	0.049	<0.93	No Sample	No	MEC<C
93	Isophorone	600	<0.93	No Sample	No	MEC<C
94	Naphthalene	No criteria	<0.93	No Sample	No	No Criteria
95	Nitrobenzene	1,900	<0.93	No Sample	No	MEC<C
96	N-Nitrosodimethylamine	8.1	<1.9	No Sample	No	MEC<C
97	N-Nitrosodi-n-Propylamine	1.4	<0.93	No Sample	No	MEC<C
98	N-Nitrosodiphenylamine	16	<0.93	No Sample	No	MEC<C
99	Phenanthrene	No criteria	<0.93	No Sample	No	No Criteria
100	Pyrene	11,000	<0.93	No Sample	No	MEC<C
101	1,2,4-Trichlorobenzene	No criteria	<0.93	No Sample	No	No Criteria
102	Aldrin	0.00014	<0.047	No Sample	No	MEC<C
103	Alpha-BHC	0.013	<0.047	No Sample	No	MEC<C
104	Beta-BHC	0.046	<0.047	No Sample	No	MEC<C
105	Gamma-BHC (aka Lindane)	0.063	<0.047	No Sample	No	MEC<C
106	delta-BHC	No criteria	<0.047	No Sample	No	No Criteria
107	**Chlordane**	**0.00059**	**<0.047**	**No Sample**	**Yes**	**TMDL**
108	**4,4'-DDT**	**0.00059**	**<0.047**	**No Sample**	**Yes**	**TMDL**
109	**4,4'-DDE**	**0.00059**	**<0.047**	**No Sample**	**Yes**	**TMDL**
110	**4,4'-DDD**	**0.00084**	**<0.047**	**No Sample**	**Yes**	**TMDL**
111	**Dieldrin**	**0.00014**	**<0.047**	**No Sample**	**Yes**	**TMDL**
112	Alpha-Endosulfan	0.056	<0.047	No Sample	No	MEC<C
113	Beta-Endosulfan	0.056	<0.047	No Sample	No	MEC<C
114	Endosulfan Sulfate	240	<0.047	No Sample	No	MEC<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
115	Endrin	0.036	<0.047	No Sample	No	MEC<C
116	Endrin Aldehyde	0.81	<0.047	No Sample	No	MEC<C
117	Heptachlor	0.00021	<0.047	No Sample	No	MEC<C
118	Heptachlor Epoxide	0.00011	<0.047	No Sample	No	MEC<C
119	**PCB 1016**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
120	**PCB 1221**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
121	**PCB 1232**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
122	**PCB 1242**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
123	**PCB 1248**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
124	**PCB 1254**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
125	**PCB 1260**	**0.00017**	**<0.047**	**No Sample**	**Yes**	**TMDL**
126	**Toxaphene**	**0.00016**	**<1.9**	**No Sample**	**Yes**	**TMDL**
---	**Chlorpyrifos**	**0.0133**	**---**	**No Sample**	**Yes**	**TMDL**
---	**Diazinon**	**0.1**	**---**	**No Sample**	**Yes**	**TMDL**

4.3.5. **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:

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

b. TMDL-based Limitations

i. Calleguas Creek Watershed Metals TMDL.

Copper

Concentration-based final WLAs were established for copper for the Camrosa WRF in the Metals TMDL. A mass-based final WLA for copper was not established for the Camrosa WRF in the Metals TMDL because the Discharger does not contribute loading during dry weather.

Nickel

Concentration-based final WLAs were established for nickel for the Camrosa WRF in the Metals TMDL. WLAs apply during wet weather when discharge occurs. A mass-based final WLA was not established for nickel for the Camrosa WRF in the *Metals TMDL* because the Discharger does not contribute loading during dry weather.

Mercury

A mercury mass-based WLA is not established for the Camrosa WRF in the Metals TMDL and there is no reasonable potential for the effluent to exceed the current

water quality objective. Therefore, the permit does not contain a final effluent limitation for mercury which is consistent with the final WLA.

Zinc

Zinc allocations are not set because current information indicate that numeric targets for zinc are attained. The TMDL implementation plan includes a task to provide State Water Board data to support delisting of zinc. In addition, effluent data demonstrates that the Facility's discharge does not have reasonable potential to cause an exceedance of the applicable water quality objective.

Selenium

Waste load allocations for selenium are not set for POTWs because POTWs do not discharge to reaches listed for selenium.

ii. **OC Pesticide TMDL**

The *Organochlorine (OC) Pesticide, Polychlorinatedbiphenyls (PCBs), and Siltation TMDL* establishes final WLAs for chlordane, dieldrin, 4,4-DDD, 4,4- DDE, 4,4-DDT, PCBs, and toxaphene. The permit contains final effluent limitations consistent with these final WLAs.

iii. **Toxicity TMDL**

The *Toxicity TMDL* establishes final WLAs for chlorpyrifos and diazinon. The permit contains final effluent limitations consistent with the final WLAs. The *Toxicity TMDL* also establishes a final WLA for Chronic Toxicity, based on the 1 TUc numeric target. The permit contains final effluent limitations consistent with the assumptions of the Toxicity TMDL and consistent with the implementation language which reads, "The toxicity WLAs will be implemented in accordance with USEPA, State Water Board and Regional Water Board resolutions, **guidance** (emphasis added) and policy at the time of permit issuance or renewal."

iv. **Nutrient TMDL**

The *Nitrogen Compounds and Related Effects (Nitrogen) TMDL* establishes final WLAs for ammonia nitrogen, nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite as nitrogen. The permit contains final effluent limitations consistent with the final WLAs.

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 (page 8) lists the statistical equations that adjust CTR criteria for effluent variability.

Step 5 of Section 1.4 of the SIP (page 10) 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 POTWs in place of average weekly limitations.

Sample calculation for dibromochloromethane:

Step 1: Identify applicable water quality criteria.

From California Toxics Rule (CTR), we can obtain the human health criterion. There is no Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC) for dibromochloromethane.

Human Health Criteria for Organisms only = 34 µg/L (CTR page 31712, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Criteria in CTR, since no dilution is allowed.

Step 3: Determine long-term average (LTA) discharge condition

Calculate CV:

CV = Standard Deviation/Mean = 0.8

Find the ECA Multipliers from SIP Table 1 (page 9), or by calculating them using equations on SIP page 6. When CV = 0.8:

ECA Multiplier acute = 0.249 and

ECA Multiplier chronic = 0.440

LTA acute = ECA acute x ECA Multiplier acute = No Criteria

LTA chronic = ECA chronic x ECA Multiplier chronic = No Criteria

Step 4: Select the lowest LTA

In this case there is no LTA since there is no criteria.

Step 5: Calculate the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE

Not applicable since there is no criteria.

Step 6: Find the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH

Find factors. Given CV = 0.8 and n = 8.

MDEL human health limit, factor = 4.01

For AMEL human health limit, factor = 1.52.

The MDEL/AMEL human health factor = 2.64

AMEL human health = ECA = 34 µg/L

MDEL human health = ECA x MDEL/AMEL factor

= 34 µg/L x 2.64 = 89.8 µg/L

Step 7: Compare the AMELs for Aquatic life and Human health and select the lowest. Compare the MDELs for Aquatic life and Human health and select the lowest

Lowest AMEL = 34 µg/L (based on aquatic life protection)

Lowest MDEL = 90 µg/L (based on human health protection)

Since these calculated final effluent limitations are less stringent than those in the previous permit, the final effluent limitations from the previous permit were carried over to this Order to prevent backsliding.

d. **Impracticability Analysis**

Federal NPDES regulations contained in 40 CFR § 122.45(d) (continuous discharges) states that, for POTWs, all permit limitations, standards, and prohibitions, including those to achieve water quality standards, shall unless impracticable be stated as average weekly and average monthly.

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. (See, Section 5.2.3 of USEPA's *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001, March 1991)).

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. Similarly, 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 disruptors 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.

For this 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 certain priority pollutants because they are considered to be carcinogens, endocrine disruptors, and/or bioaccumulative.

e. Mass-based limits. 40 CFR § 122.45(f)(1) requires that, except under certain conditions, or for certain pollutants, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR § 122.45(f)(2) allows the permit writer, at his/her 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-7. Summary of WQBELs for Discharge Point 001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
Settleable Solids	mL/L	0.1	---	0.3	---
Oil and Grease	mg/L	10	---	15	---
Oil and Grease	lbs/day	190	---	280	---
Total Residual Chlorine	mg/L	---	---	0.1	---
Ammonia Nitrogen	mg/L	3.0	---	7.2	---
Ammonia Nitrogen	lbs/day	---	---	6.5 x Q	Notes a and b
Nitrate + Nitrite as N	mg/L	9	---	---	---
Nitrate as N	mg/L	9	---	---	---
Nitrite as N	mg/L	0.9	---	---	---
Copper	mg/L	27.0	---	27.4	---
Nickel	mg/L	149	---	858	---
Chlorodibromomethane	mg/L	33	---	68	---
Chlorodibromomethane	lbs/day	0.62	---	1.3	Note a
Bromodichloromethane	mg/L	43	---	92	---
Bromodichloromethane	lbs/day	0.81	---	1.7	Note a
Chlordane	µg/L	0.00059	---	0.0012	---
4,4-DDD	µg/L	0.00084	---	0.0017	---
4,4-DDE	µg/L	0.00059	---	0.0012	---
4,4-DDT	µg/L	0.00059	---	0.0012	---
Dieldrin	µg/L	0.00014	---	0.00028	---
PCBs	µg/L	0.00017	---	0.00034	---
Toxaphene	µg/L	0.00016	---	0.00033	---
Chlorpyrifos	µg/L	0.0133	---	0.024	---
Diazinon	µg/L	0.1	---	0.1	---
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % Effect <50	Notes c and d

Footnotes for Table F-7

a. The mass-based effluent limitations are based on the plant design flow rate of 2.25 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 except for TDS, chloride, and sulfate, and concentration limitations shall be the only applicable effluent limitations.

b. *Q* represents the POTW flow when the water quality measurement is collected (not to exceed 2.25 mgd) and a conversion factor to lbs/day based on the units of measure for flow.

c. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the 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 on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

d. The *Calleguas Creek Watershed Toxicity TMDL* includes a Waste Load Allocation (WLA) of 1.0 TUc for toxicity, which is required to be implemented in accordance with USEPA, State Water

Board, and Regional Water Board resolutions, guidance and policy at the time of permit issuance or renewal. In addition, a numeric water quality-based effluent limitation (WQBEL) is established because effluent data showed that there is reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The numeric WLA is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. Consistent with the *Toxicity TMDL*, these chronic toxicity WLA-based final effluent limitations shall be implemented using the *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), and current USEPA guidance in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June /2010)* and *EPA Regions 8, 9 and 10 Toxicity Training Tool (January 2010),* *https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*..

End Footnotes for Table F-7

4.3.6. **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 period and measures mortality. A chronic toxicity test is conducted over a longer period 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.

The effluent limitations for chronic toxicity were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards, since the Toxicity TMDL establishes a chronic toxicity WLA for the Camrosa WRF. The Regional Water Board developed water quality-based effluent limitations for these pollutants pursuant to 40 CFR § 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis.

In the past, the State Water Board reviewed circumstances warranting a numeric chronic toxicity effluent limitation for POTWs when there is reasonable potential. (See 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 deferring the issue of numeric chronic toxicity effluent limitation for POTWs 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 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. The Camrosa WRF's NPDES permit contained a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring, consistent with the State Water Board's precedential Order.

However, many facts have changed since the State Water Board adopted the Los Coyotes Order in 2003. Namely, the Regional Water Board adopted the Calleguas Creek Toxicity TMDL containing a numeric WLA for chronic toxicity for the five POTWs located in the watershed; USEPA published two new guidance documents with respect to chronic toxicity; the Los Angeles Regional Water Board has adopted NPDES permits for POTWs and industrial facilities incorporating TST-based effluent limitations for chronic toxicity and has adopted numeric chronic toxicity effluent limitations.; the Santa

Ana Regional Water Board adopted an NPDES permit for a POTW incorporating TST-based effluent limitations for chronic toxicity. In addition to these 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.

On October 19, 2018, the State Water Board released a revised version of the Chronic Toxicity Plan for public comment. The item is tentatively scheduled for State Water Board consideration in 2020.

Because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective, this Order contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirement contained in this Order shall be determined in accordance with sections 7.10. of this Order. 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.

For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach. Chronic toxicity limitations are expressed as "Pass" for the median monthly summary results and "Pass" and "<50% Effect" for each maximum daily individual result. The chronic toxicity effluent limitations are as stringent as necessary to protect the narrative Basin Plan Water Quality Objective for chronic toxicity. Those limitations are also consistent with the chronic toxicity WLA of 1.0 TUc and the assumptions of the Calleguas Creek Toxicity TMDL which went into effect on March 24, 2006, and the implementation language which reads as follows: "The toxicity WLAs will be implemented in accordance with USEPA, State Board and Regional Board resolutions, **guidance** (emphasis added) and policy at the time of permit issuance or renewal."

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 section 122.45(d) requires that all permit limitations be expressed, unless impracticable, as an Average Weekly Effluent Limitation (AWEL) and an Average Monthly Effluent Limitation (AMEL) for POTWs. Following Section 5.2.3 of the TSD, the use of an AWEL is not appropriate for WET. In lieu of an AWEL for POTWs, USEPA recommends establishing an MDEL 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 water quality standards (WQS). Moreover, an average weekly requirement comprising of 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 AWEL,

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 MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. The AMEL 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, USEPA Regions 9 and 10 continue to recommend that the AMEL for chronic WET should be expressed as a median monthly limit (MMEL).

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 the 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.

USEPA's WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. USEPA's WET methods do not require achievement of specified effluent or ambient concentration-response patterns prior to determining that toxicity is present[3]. Nevertheless, USEPA's acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed - as a component of test review following statistical analysis - to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2.). In 2000, USEPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (NOEC, LC50's, IC25's) were calculated appropriately (EPA 821-B-00-004).

USEPA designed its 2000 guidance as a standardized step-by step review process that investigates the causes for 10 commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC50s, and IC25s, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: (1) that calculated effect concentrations are reliable and should be reported, (2) that calculated effect concentrations are anomalous and should be explained, or (3) that the test was inconclusive and should be repeated with a newly collected sample. The

[3] See, Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed.Reg. 69952, 69963, November 19, 2002.

standardized review of the effluent and receiving water concentration-response patterns provided by USEPA's 2000 guidance decreased discrepancies in data interpretation for NOEC, LC50, and IC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA's TST statistical approach (pass/fail) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of USEPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria and other test review procedures - including those related to Quality Assurance for effluent and receiving water toxicity tests, reference toxicity tests, and control performance (mean, standard deviation, and coefficient of variation) - described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single-concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The Regional Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t- test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or PMSDs must be submitted for review by the Regional Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditation Program (40 CFR section 122.41(h)). As described in the bioassay laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, the PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results.

4.4. **Final Effluent Limitation Considerations**

4.4.1. **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 at least as stringent as the effluent limitations in

the previous Order, except for the mass-based final effluent limitations for all pollutants and the final effluent limitations for carbon tetrachloride.

a. Mass-based final effluent limitations: BOD, TSS, oil and grease, MBAS, boron, chlorodibromomethane, and bromodichloromethane

CWA section 402(o)(2)(A) allows for less stringent final effluent limitations if "material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation." Here, the mass-based final effluent limitations for BOD, TSS, oil and grease, boron, MBAS, chlorodibromomethane, and bromodichloromethane were increased since there were material and substantial alterations to the Facility that increased the Facility's design capacity. Specifically, the Discharger modified the treatment process by decreasing the chlorine contact time, which resulted in an increase in the treatment capacity of the Facility from 1.5 to 2.25 mgd.

Since the increased capacity was the result of a significant modification to the treatment process, the less stringent mass-based final effluent limitations are permitted under CWA 402(o)(2)(A). The relaxation of the mass-based final effluent limitations does not impact the concentration-based final effluent limitations for these constituents, but rather permits the Camrosa WRF to discharge additional mass as a result of its increased treatment capacity. The concentration-based final effluent limitations continue to be based on technology, the Basin Plan, or the California Code of Regulations. Since the concentration-based final effluent limitations are based on the applicable regulations for the protection of the beneficial uses, the final effluent limitations for these pollutants will ensure the discharge meets the applicable water quality objective and prohibits pollutant loads above that which are protective of the beneficial uses of the receiving water.

b. Mass based final effluent limitations: TDS, chloride, and sulfate :

Dry Weather

As set forth above, there were material and substantial alterations to the Discharger's Facility that support less stringent final effluent limitations under CWA section 402(o)(2)(A). The same rationale supports the increase in the dry weather mass-based final effluent limitations for TDS, chloride, sulfate.

Wet Weather

The wet weather concentration-based final effluent limitations for TDS, chloride, and sulfate in the previous Order were equal to the water quality objectives in the Basin Plan. The wet weather final effluent limitations for TDS, chloride, and sulfate in this Order are based on the same water quality objectives as the previous Order but are expressed in terms of mass instead of concentration. Since the wet weather final effluent limitations for TDS, chloride, and sulfate are based on the same WQOs and are expressed in terms of mass instead of concentration, these final effluent limitations are no less stringent than designated in the previous Order, and backsliding does not apply.

c. Carbon Tetrachloride: Attainment Waters

The final effluent limitations for carbon tetrachloride were included in the previous Order but were removed in this Order because, based on the most recent monitoring data, the pollutant did not exhibit reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria.

Section 402(o)(2) of the CWA provides statutory exceptions to the general prohibition of backsliding contained in 402(o)(1). One of these exceptions 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." The reasonable potential analysis using the updated monitoring data justifies the removal of the effluent limitations for carbon tetrachloride based on this exception as long as the cumulative effect of removing the limits results in a decrease in the amount of pollutants discharged into the receiving water. The reasonable potential analysis process focuses on the contaminants with the potential to cause an exceedance of the water quality criteria in the receiving water, and thus results in an overall decrease in the mass of pollutants discharged into the receiving water. The potential for a final effluent limitation to be removed if there is no reasonable potential for the pollutant to cause or contribute to an exceedance of the water quality objective provides an incentive to the discharger to reduce the pollutant load in its discharge, and thus results in an overall decrease in the amount of pollutants discharged into the receiving water. The removal of effluent limitations for this pollutant is thus consistent with the anti-backsliding requirements of the CWA and federal regulations. In addition, section 303(d)(4)(B) of the CWA allows for a relaxation of effluent limitations where the quality of the receiving water equals or exceeds the levels necessary to protect the designated beneficial uses of the receiving water or otherwise required by applicable water quality standards, if the revision is subject to and consistent with the State's Antidegradation Policy. Calleguas Creek is not impaired for carbon tetrachloride. As described below in section 4.4.2, relaxation or removal of effluent limitations for this pollutant is consistent with the state and federal antidegradation policies. Therefore, the exception to the prohibition on relaxation of effluent limitations found in section 303(d)(4)(B) allows the removal of these effluent limitations.

4.4.2. **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 section 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR section 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.

Effluent limitations for carbon tetrachloride are not included in this Order because monitoring data demonstrated that there is no reasonable potential for the discharge to cause or contribute to an exceedance of the water quality standard for the pollutant. Additionally, the receiving water is in attainment for carbon tetrachloride. Monitoring for this pollutant in the effluent and receiving water continue to be required under this Order. As such, the discharges in this Order are consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16 for carbon tetrachloride because the discharge will not degrade an existing high-quality water.

The other final effluent limitations that were relaxed are for pollutants for which the previous permit included mass-based final effluent limitations, specifically, BOD, TSS, oil and grease, boron, MBAS, chlorodibromomethane, and bromodichloromethane. The mass-based final effluent limitations were increased for these pollutants because the design capacity of the Facility increased. The final effluent limitations were calculated using the same method as in the previous permit, using the design capacity and the applicable water quality standard. Each of these constituents, however, retained the same final concentration-based effluent limitations as those in the prior permit. The concentration-based final effluent limitations for these pollutants will ensure attainment of the water quality standard in the receiving water because the concentration-based final effluent limitations are at or below the applicable water quality standard. As such, the concentration-based final effluent limitations will ensure the discharge will not result in water quality less than that prescribed in the policies and will protect the beneficial uses of the receiving water, while also permitting the Facility to increase its capacity to accommodate increased influent flows. Permitting the Discharger to increase the design capacity of the facility is to the maximum benefit of the people of the State because the capacity is needed to treat wastewater for a growing population. Monitoring for these constituents in the effluent and receiving waters continue to be required under this Order to ensure that beneficial uses and water quality objectives are protected and maintained, respectively.

The dry weather mass-based final effluent limitations for TDS, chloride, and sulfate were also increased as a result of the increased Facility design capacity. These final effluent limitations are consistent with the Salts TMDL in that they are calculated using the WQOs in the Basin Plan and are expressed as an AMEL. The dry weather mass-based final effluent limitations for TDS, chloride, and sulfate are based on the WLAs in the Salts TMDL that are expressed as an equation. The equation remains the same in this permit and only the design flow increases. Since the dry weather final effluent limitations continue to be consistent with the Salts TMDL, the final effluent limitations for these pollutants will ensure the mass loading to the receiving water is no greater than required for the receiving water to attain the water quality objectives for TDS, chloride, and sulfate. Although these mass-based final effluent

limitations increased, they continue to be consistent with the Salts TMDL, are not expected to result in water quality less than that prescribed in the policies, and will protect the beneficial uses of the receiving water while also permitting the facility to increase its capacity to accommodate for the increased flows. Permitting the Discharger to increase the design capacity of the facility is to the maximum benefit of the people of the State because the capacity is needed to treat wastewater for a growing population.

The wet weather concentration-based final effluent limitations from the previous Order for TDS, chloride, and sulfate were converted to mass-based final effluent limitations in this Order. The Salts TMDL does not include wet weather final effluent limitations because during wet weather the loading capacity of the stream is significantly increased by stormwater flows with very low salt concentrations. The wet weather mass-based TDS, chloride, and sulfate final effluent limitations are not expected to cause degradation because the final effluent limitations continue to be based on the Basin Plan WQOs and are no less stringent than the concentration-based wet weather final effluent limitations in the previous permit. The wet weather final effluent limitations are also more stringent than the requirements prescribed in the Salts TMDL since wet weather WLAs were not included in the TMDL. The mass-based final effluent limitations will ensure the discharge will not result in water quality less than that prescribed in the applicable policies, will protect the beneficial uses of the receiving water, and are to the maximum benefit to the people of the state since the mass-based final effluent limitations are based on the Basin Plan WQOs and consistent with the assumptions of the Salts TMDL.

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.

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

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on BOD, TSS, and percent removal of BOD and TSS. Restrictions on BOD, TSS, and percent removal of BOD and TSS are discussed in section 4.2. 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 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 water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The scientific procedures for calculating the

individual water quality-based effluent limitations for priority pollutants are based on the CTR implemented by the 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 water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). With the exception of the limits for MBAS, radioactivity, turbidity, and total coliform, this Order's restrictions on individual pollutants are collectively 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-8. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
$BOD_5$20°C	mg/L	20	30	45	Tertiary Treatment
$BOD_5$20°C	lbs/day	380	560	840	Tertiary Treatment
TSS	mg/L	15	40	45	Tertiary Treatment
TSS	lbs/day	280	750	840	Tertiary Treatment
pH	Standard Units	---	---	6.5-8.5	Basin Plan
Temperature	°F	---	---	86	Existing
Removal Efficiency for BOD and TSS	%	≥85	---	---	Tertiary Treatment
Oil and Grease	mg/L	10	---	15	Basin Plan
Oil and Grease	lbs/day	190	---	280	Basin Plan
Settleable Solids	ml/L	0.1	---	0.3	Basin Plan
Total Residual Chlorine	mg/L	---	---	0.1	Basin Plan
Turbidity	NTU	2	---	5	Title 22
Total Coliform	CFU/100mL	23	2.2	240	Title 22
Radioactivity	---	---	---	---	---
Combined Radium-226 and Radium 228	pCi/L	5	---	---	Title 22
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	Title 22
Uranium	pCi/L	20	---	---	Title 22
Gross Beta/photon emitters	millirem/ year	4	---	---	Title 22
Strontium-90	pCi/L	8	---	---	Title 22
Tritium	pCi/L	20,000	---	---	Title 22
TDS (dry-weather)	lbs/day	15,950	---	---	TMDL
TDS (wet-weather)	lbs/day	15,950	---	---	Basin Plan
Sulfate (dry-weather)	lbs/day	4,690	---	---	TMDL
Sulfate (wet-weather)	lbs/day	4,690	---	---	Basin Plan
Chloride (dry-weather)	lbs/day	2,810	---	---	TMDL
Chloride (wet-weather)	lbs/day	2,810	---	---	Basin Plan
Boron	mg/L	1.0	---	---	Basin Plan
Boron	lbs/day	19	---	---	Basin Plan

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Ammonia Nitrogen	mg/L	3.0	---	7.2	TMDL
Ammonia Nitrogen	lbs/day	---	---	6.5 x Q	TMDL
Nitrate + Nitrite as N	mg/L	9.0	---	---	TMDL
Nitrate as N	mg/L	9.0	---	---	TMDL
Nitrite as N	mg/L	0.9	---	---	TMDL
MBAS	mg/L	0.5	---	---	Title 22
MBAS	lbs/day	9.4	---	---	Title 22
Copper	mg/L	27.0	---	27.4	TMDL
Nickel	mg/L	149	---	858	TMDL
Chlorodibromomethane	mg/L	33	---	68	SIP/CTR
Chlorodibromomethane	lbs/day	0.62	---	1.3	SIP/CTR
Bromodichloromethane	mg/L	43	---	92	SIP/CTR
Bromodichloromethane	lbs/day	0.81	---	1.7	SIP/CTR
Chlordane	µg/L	0.00059	---	0.0012	TMDL
4,4'-DDD	µg/L	0.00084	---	0.0017	TMDL
4,4'-DDE	µg/L	0.00059	---	0.0012	TMDL
4,4'-DDT	µg/L	0.00059	---	0.0012	TMDL
Dieldrin	µg/L	0.00014	---	0.00028	TMDL
PCBs	µg/L	0.00017	---	0.00034	TMDL
Toxaphene	µg/L	0.00016	---	0.00033	TMDL
Chlorpyrifos	µg/L	0.0133	---	0.024	TMDL
Diazinon	µg/L	0.1	---	0.1	TMDL
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % Effect < 50	TMDL

4.5. **Interim Effluent Limitations – Not Applicable**

4.6. **Land Discharge Specifications – Not Applicable**

4.7. **Recycling Specifications**

The Discharger shall continue to investigate the feasibility of recycling, conservation, and/or alternative disposal methods for wastewater (such as groundwater injection), and/or beneficial use of stormwater and dry-weather urban runoff. The Discharger shall submit a feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. **Surface Water**

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

5.2. **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 groundwater recharge (GWR) beneficial use of the surface water. In addition to a discharge to surface water, the discharge may impact groundwater. Sections of Calleguas Creek, near the Camrosa WRF discharge point, are designated with the GWR beneficial use. Surface water from Calleguas Creek percolates into the Pleasant 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 Water 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 has reasonable potential to exceed the California Toxics Rule (CTR) human health criteria for dichlorobromomethane and dibromochloromethane, therefore, a limit is included in the permit for these pollutants. The effluent limitations are expressed as a monthly average rather than a daily maximum, because the groundwater basin has assimilative capacity for these pollutants based on available groundwater data. 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 these pollutants are needed.

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

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

Sections 122.41(a)(1) and (b) through (n) of 40 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. Section 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 section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2)

because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are 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.

6.2.2. Special Studies and Additional Monitoring Requirements

a. **Antidegradation Analysis and Engineering Report for Any 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. The Discharger 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 Discharger 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 Discharger to report specific time schedules for the plant's projects. This provision requires the Discharger to submit a report to the Regional Water Board for approval.

b. **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 Discharger may adjust and test the treatment system(s). This provision requires the Permittee to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.

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

6.2.3. Best Management Practices and Pollution Prevention

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

6.2.4. Construction, Operation, and Maintenance Specifications

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

6.2.5. Special Provisions for Publicly-Owned Treatment Works (POTWs)

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 Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger 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 facility does not currently provide service to any significant industrial users (SIUs) and therefore does not maintain an active pretreatment program. The Discharger shall assess current and future users to determine if SIUs exist that would require the development of a pretreatment program.

c. **Filter Bypass Requirements.** Conditions pertaining to bypass are contained in Attachment D, Section I. Standard Provisions – Permit Compliance, subsection G. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters. These anticipated discharges are approved under the bypass conditions when the resulting combined discharge of fully treated (tertiary) and partially treated (secondary) wastewater complies with the effluent and receiving water limitations in this Order.

d. **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 (SSS WDRs) on May 2, 2006. The Monitoring and Reporting Requirements for the SSS WDRs were amended by Water Quality Order WQ 2008-0002-EXEC on February 20, 2008. The SSS WDRs 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 SSS WDRs. The SSS WDRs requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the SSS WDRs contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section 6.3.5. For instance, the 24-hour reporting requirements in this Order are not included in the SSS WDRs. The Discharger must comply with both the SSS WDRs and this Order. The Discharger and public agencies that are discharging wastewater into the

Facility were required to obtain enrollment for regulation under the SSS WDRs by December 1, 2006.

In the past, the region has experienced loss of recreational use at coastal beaches and in Arroyo Conejo as a result of major sewage spills. The SSS WDRs requirements are intended to prevent or minimize impacts to receiving waters as a result of spills.

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

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

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

7.1. 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.
- As a requirement of the PMP.

7.2. Effluent Monitoring

The Discharger 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 sections 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 Discharger'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. Annual monitoring for priority pollutants in the effluent is required in accordance with the Pretreatment requirements.

Table F-9. Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2014 Permit)	Monitoring Frequency (2020 Permit)
Total waste flow	continuous	no change
Total residual chlorine	when discharged	Daily
Turbidity	when discharged	Daily
Temperature	Daily	No change
pH	Daily	No change
Settleable solids	Weekly	No change
Total suspended solids	Weekly	No change
Oil and grease	Weekly	Quarterly
$BOD_5$20°C	Weekly	No change
Dissolved Oxygen	Monthly	No change
Total coliform	Daily	No change
Fecal Coliform	Daily	Removed
E. coli	Daily (as necessary)	No change
Total Dissolved Solids	Monthly	No change
Sulfate	Monthly	No change
Chloride	Monthly	No change
Boron	Quarterly	No change
Fluoride	Quarterly	Semiannually
MBAS	Quarterly	No change
CTAS	Quarterly	No change
Ammonia nitrogen	Monthly	No change
Nitrate + nitrite (as nitrogen)	Monthly	No change
Nitrate nitrogen	Monthly	No change
Nitrite nitrogen	Monthly	No change
Organic nitrogen	Monthly	No change
TKN	Monthly	No change
Total nitrogen	Monthly	No change
Orthophosphate as P	Monthly	No change
Total Phosphorus	Monthly	No change
Hardness ($CaCO_3$)	Monthly	No change
Radioactivity	Annually	No change
Chronic toxicity	Monthly	No change
Copper	Quarterly	No change
Nickel	Monthly	No change
Mercury	Quarterly	Quarterly
Cyanide	Quarterly	Semiannually
Dibromochloromethane	Monthly	No change
Bromodichloromethane	Monthly	No change
Dieldrin	Quarterly	No change
PCBs as aroclors	Quarterly	No change
PCBs as congeners	---	Annually
Chlordane	Quarterly	No change
4,4'-DDT	Quarterly	No change
4,4'-DDE	Quarterly	No change
4,4'-DDD	Quarterly	No change

Parameter	Monitoring Frequency (2014 Permit)	Monitoring Frequency (2020 Permit)
Toxaphene	Quarterly	No change
Chlorpyrifos	Semiannually	No change
Diazinon	Semiannually	No change
Methyl tert butyl ether (MTBE)	Annually	No change
Perchlorate	Annually	No change
1,4-dioxane	Annually	No change
1,2,3-trichloropropane	Annually	No change
Remaining USEPA Priority Pollutants	Annually	No change

7.3. Whole Effluent Toxicity Testing Requirements

WET testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or longer period 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 TST hypothesis testing approach. The chronic toxicity effluent limitations are as stringent as necessary to protect the Basin Plan Water Quality Objective for chronic toxicity. Those limitations are also consistent with the assumptions of the *Calleguas Creek Toxicity TMDL* which went into effect on March 24, 2006, and the implementation language which reads as follows: "The toxicity WLAs will be implemented in accordance with USEPA, State Board and Regional Board resolutions, **guidance** (emphasis added) and policy at the time of permit issuance or renewal." The rationale for WET has been discussed extensively in section 4.3.6. of this Fact Sheet.

7.4. Receiving Water Monitoring

7.4.1. Surface Water

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

7.4.2. Groundwater – (Not Applicable)

7.5. Other Monitoring Requirements

7.5.1. Watershed and Bioassessment Monitoring

The goals of the watershed-wide monitoring program, including the bioassessment monitoring, for the Calleguas 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
- Determine mixing dynamics of effluent and receiving waters in the estuary.

7.5.2. **Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program**

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

8. CONSIDERATION OF NEED TO PREVENT NUISANCE AND CWC 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.

8.1. 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. The Regional Water Board has taken this factor into account in establishing effluent limitations in the Order.

8.2. 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 3.3. The Regional Water Board has taken this factor into account in establishing effluent limitations in the Order. The limits herein protect the past, present and probable future beneficial uses of the water.

8.3. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto: The environmental characteristics are discussed in the Basin Plan, the Region's Watershed Management Initiative Chapter, and are also 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 CCW is available at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/ws_calleguas.shtml.

8.4. 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 Calleguas Creek 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 CWA) for many of the impairments in the watershed. Several 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 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.

8.5. 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. Any 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.

8.6. Need for developing housing within the region:. The Regional Water Board does not anticipate that the state law requirements in this Order 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 reuse. 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.

8.7. 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. This Order considers the needs of the growing population because the mass-based limits were adjusted based on the increased design capacity of the Facility, which will allow additional effluent to be provided for recycling. 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 additional 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.

9. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Camrosa WRF. 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.

9.1. Notification of Interested Parties

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

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/.

9.2. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Regional Water Board at the address 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 May 18, 2020**.

9.3. 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:	June 11, 2020
Time:	09:00 a.m.
Location:	TBD

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.

9.4. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

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

9.5. Information and Copying

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

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-2343

9.6. **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.

9.7. **Additional Information**

Requests for additional information or questions regarding this order should be directed to Steven Webb at (213) 576-6793 or via email at steven.webb@waterboards.ca.gov.

ATTACHMENT G - TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

1. Gather and Review Information and Data
   1.1. POTW Operations and Performance
   1.2. POTW Influent and Pretreatment Program
   1.3. effluent Data, including Toxicity Results
   1.4. Sludge (Biosolids) Data
2. Evaluate Facility Performance
3. Conduct Toxicity Identification Evaluation (TIE)
4. Evaluate Sources and In-Plant Controls
5. Implement Toxicity Control Measures
6. Conduct Confirmatory Toxicity Testing

ATTACHMENT H - BIOSOLIDS AND SLUDGE MANAGEMENT

1. All biosolids generated by the Permittee shall be reused or disposed of in compliance with the applicable portions of:

   1.1. 40 CFR part 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated; 40 CFR part 503 Subpart B (land application) applies to biosolids placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR part 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.

   1.2. 40 CFR part 258: for biosolids disposed of in Municipal Solid Waste landfills.

   1.3. 40 CFR part 257: for all biosolids disposal practices not covered under 40 CFR part 258 or 503.

2. The Permittee is responsible for assuring that all biosolids from its facility are used or disposed of in accordance with 40 CFR part 503, whether the Permittee reuses or disposes of the biosolids itself or transfers them to another party for further treatment, reuse, or disposal. The Permittee is responsible for informing subsequent preparers, appliers, or disposers of the requirements they must meet under 40 CFR part 503.

3. Duty to mitigate: The Permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal which may adversely impact human health or the environment.

4. No biosolids shall be allowed to enter wetland or other waters of the United States.

5. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.

6. Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.

7. The Permittee shall assure that haulers who transport biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.

8. If biosolids are stored for over two years from the time they are generated, the Permittee must ensure compliance with all the requirements for surface disposal under 40 CFR part 503 Subpart C, or must submit a written request to USEPA with the information in section 503.20 (b), requesting permission for longer temporary storage.

9. Sewage sludge containing more than 50 mg/kg PCB's shall be disposed of in accordance with 40 CFR part 761.

10. Any off-site biosolids treatment, storage, use or disposal site operated by the Permittee within Region 4 (Los Angeles Region of RWQCB) that is not subject to its own Waste Discharge Requirements shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.

11. Inspection and Entry: The Regional Water Board, USEPA or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Permittee, directly or through contractual arrangements with their biosolids management contractors, to:

- Enter upon all premises where biosolids are produced by the Permittee and all premises where Permittee biosolids are further treated, stored, used, or disposed, either by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.
- Have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR part 503, by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.
- Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the production of biosolids and further treatment, storage, use, or disposal by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.

12. Monitoring shall be conducted as follows:

12.1. Biosolids shall be tested for the metals required in section 503.16 (for land application) or section 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solids Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(b}(4}, at the following minimum frequencies:

Volume (dry metric tons/year)	Frequency
0 – 290	once per year
290 – 1500	once per quarter
1500 – 15000	once per 60 days
> 15000	once per month

For accumulated, previously untested biosolids, the Discharge shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

12.2. Prior to land application, the Permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR section 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.

12.3. For biosolids that are land applied or placed in a surface disposal site, the Permittee shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR section 503.33(b).

12.4. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with> 5 mgd influent flow shall sample biosolids for pollutants listed under section 307(a) of the Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs.) Class 1 facilities and Federal Facilities with> 5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of < 1 pg/g during their next

sampling period if they have not done so within the past 5 years and once per 5 years thereafter.

12.5. The biosolids shall be tested annually or more frequently if necessary, to determine hazardousness in accordance with California Law.

12.6. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

12.7. Biosolids placed in a municipal landfill shall be tested semi-annually by the Paint Filter Test (SW-846, Method 9095) to demonstrate that there are no free liquids.

13. The Permittee either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements:

13.1. A reuse/disposal plan shall be submitted to USEPA Region IX Coordinator and, in the absence of other state or regional reporting requirements, to the state permitting agency, prior to the use or disposal of any biosolids from this facility to a new or previously unreported site. The plan shall be submitted by the land applier of the biosolids and shall include, a description and a topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a list of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed nitrogen loadings to be used for the crops, and a groundwater monitoring plan if one exists.

13.2. If the Permittee's biosolids do not meet 40 CFR section 503.13 Table 3 metals concentration limits, the Permittee must require their land applier to contact the state permitting authority to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 40 CFR section 503.12(b)(2) have been applied to the site since July 20, 1993, and, if so, the cumulative amount of pollutants applied to date, and background concentration, if known. The Permittee shall then notify USEPA Region IX Coordinator of this information.

13.3. For biosolids that are land applied, the Permittee shall notify the applier in writing of the nitrogen content of the biosolids, and the applier's requirements under 40 CFR part 503, including the requirements that the applier certify that the requirement to obtain information in Subpart A, and that the management practices, site restrictions, and any applicable vector attraction reduction requirements Subpart D have been met. The Permittee shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.

13.4. If bulk biosolids are shipped to another State or to Indian Lands, the Permittee must send written notice prior to the initial application of bulk biosolids to the permitting authorities in the receiving State or Indian Land (the USEPA Regional Office for the area and the State/Indian authorities).

13.5. Notification of 40 CFR part 503 non-compliance: The Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting

agency of any noncompliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.

14. The Permittee shall submit an annual biosolids report to USEPA Region IX Biosolids Coordinator and the Los Angeles Regional Water Quality Control Board by February 19 of each year for the period covering the previous calendar year. The report shall include:

    - The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
    - Results of all pollutant monitoring required in the Monitoring Section above.
    - Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR sections 503.17 and 503.27.
    - Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.
    - Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
    - Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other reuse/disposal methods not covered above, and volumes delivered to each.

15. The Permittee shall require all parties contracted to manage their biosolids to submit an annual biosolids report to USEPA Region IX Biosolids Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:

    15.1. Names and addresses of land appliers and surface disposal site operators, name, location (latitude/longitude), and size (hectares) of site(s), volumes applied/disposed (dry metric tons) and for land application, biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha), dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 40 CFR section 503.12(e)(2), management practices in section 503.14 and site restrictions in section 503.32(b)(5) have been met.

ATTACHMENT I – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS[1]

1. Objectives

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

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

2. Planning and Organization

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

3. Site Map

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

The following information shall be included on the site map:

- The facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion.

[1] From State Water Board's Water Quality Order No. 97-03-DWQ (NPDES General Permit No. CAS000001), Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

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

Phase	Tasks
Planning and Organization	Form Pollution Prevention Team Review other plans
Assessment Phase	Develop a site map Identify potential pollutant sources Inventory of materials and chemicals List significant spills and leaks Identify non-storm water discharges Assess pollutant risks
Best management Practices Identification Phase	Non-structural BMPs Structural BMPs Select activity and site-specific BMPs
Implementation Phase	Train employees Implement BMPs Conduct recordkeeping and reporting
Evaluation/Monitoring	Conduct annual site evaluation Review monitoring information Evaluate BMPs Review and revise SWPPP

The location of the storm water collection and conveyance system (including catch basins and retention basins), and any associated points of discharge.

- An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks have occurred.

4. List of Significant Materials

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

5. Description of Potential Pollutant Sources

The SWPPP shall include a narrative description of the potential pollutant sources and potential pollutants that could be discharged in stormwater discharges or authorized non-stormwater discharges. At a minimum, the following items related to the facility's industrial activities shall be considered:

- Material Handling and Storage Areas

  Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

- Dust and Particulate Generating Activities

  Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

- Significant Spills and Leaks

  If applicable, describe materials that have spilled or leaked in significant quantities in stormwater discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (USEPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

  The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to stormwater or non-stormwater discharges, and the preventative measures taken to ensure spills or leaks do not reoccur. The list shall be updated as appropriate during the term of this Order.

- Non-Stormwater Discharges

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

  All non-stormwater discharges shall be described except for those discharges regulated by this Order. This shall include the source, quantity, frequency, and characteristics of the non-stormwater discharges and associated drainage area.

- Soil Erosion

  Describe the facility locations where soil erosion may occur as a result of industrial activity, stormwater discharges associated with industrial activity, or authorized non-storm water discharges.

6. Assessment of Potential Pollutant Sources

   6.1. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described above to determine:

   - Which areas of the facility are likely sources of pollutants in stormwater discharges and authorized non-stormwater discharges, and
   - Which pollutants are likely to be present in stormwater discharges and authorized non-stormwater discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current stormwater BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to stormwater or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

   6.2. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in stormwater discharges and authorized non-stormwater discharges. Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source.

7. Stormwater Best Management Practices

   7.1. The SWPPP shall include a narrative description of the stormwater BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections 5 and 6 above). The BMPs shall be developed and implemented to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES SUMMARY

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

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

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

7.2.1. Non-Structural BMPs

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

- **Good Housekeeping.** Consists of practical procedures to maintain a clean and orderly facility.
- **Preventive Maintenance.** Includes the regular inspection and maintenance of structural stormwater controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

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

7.2.2. Structural BMPs

When non-structural BMPs as identified above are ineffective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Below is a list of potential structural BMPs:

- **Overhead Coverage.** Includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with stormwater and authorized non-stormwater discharges.
- **Retention Ponds.** Includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

- **Control Devices.** This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.
- **Secondary Containment Structures.** Includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.
- **Treatment.** Includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in stormwater discharges and authorized non-stormwater discharges.

8. Annual Comprehensive Site Compliance Evaluation

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) during the permit cycle. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

- A review of all visual observation records, inspection records, and sampling and analysis results.
- A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.
- A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.
- An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and signed and certified by a Professional Engineer.

9. SWPPP General Requirements

9.1. The SWPPP shall be retained onsite and made available upon request of a representative of the Regional Water Board and/or local stormwater management agency (local agency) which receives the stormwater discharges.

9.2. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

9.3. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in stormwater discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

9.4. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Order.

9.5. When any part of the SWPPP is infeasible to implement by the deadlines specified in this Order due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in stormwater discharges and authorized non-stormwater discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

9.6. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.