CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

July 20, 2015

Mr. Robert Barone
Superintendent of Operations
Camrosa Water District
7385 Santa Rosa Road
Camarillo, CA 93012-9284

Dear Mr. Barone:

ADOPTED AMENDMENT OF WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CAMROSA WATER DISTRICT, CAMROSA WATER RECLAMATION FACILITY (ORDER NO. R4-2014-0210-A01, CI NO. 6769)

The Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) transmitted a letter containing the revised tentative Amendment of Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) Order for the Camrosa Water District's (CWD) Camrosa Water Reclamation Facility (Camrosa WRF) on June 19, 2015.

In accordance with administrative procedures, the Regional Water Board at a public hearing held on July 09, 2015, reviewed the revised tentative requirements, and considered all the factors in the case, and adopted the amended WDRs and NPDES Order No. **R4-2014-0210-A01**.

The complete adopted Orders will be sent only to the Permittee. However, these documents are available on the Regional Water Board's website for review. The Regional Water Board's web address is www.waterboards.ca.gov/losangeles/.

If you have any questions, please contact me at (213) 620-2083 or Steven Webb at (213) 576-6793.

Sincerely,

Cris Morris, P.E., Chief
Municipal Permitting Unit (NPDES)

Enclosures
NPDES Order No. R4-2014-2010-A01

cc: Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
NOAA, National Marine Fisheries Service
Department of Interior, U.S. Fish and Wildlife Service
State Water Resources Control Board, Office of Chief Counsel
State Water Resources Control Board, Division of Drinking Water
Department of Fish and Wildlife, Region 5
California State Parks and Recreation
California Coastal Conservancy
California Coastal Commission, South Coast Region
Ventura County Watershed Protection
Ventura Coast Keeper
Heal the Bay
Santa Monica Baykeeper
Environment Now
Natural Resources Defense Council
U.S. Army Corps of Engineers
Los Angeles Waterkeeper
Tetra Tech

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER R4-2014-0210-A01
NPDES NO. CA0059501

WASTE DISCHARGE REQUIREMENTS FOR THE CAMROSA WATER DISTRICT CAMROSA WATER RECLAMATION FACILITY VENTURA COUNTY DISCHARGE TO THE CALLEGUAS CREEK VIA OUTFALL 001

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

Table 1. Discharger Information

Discharger	Camrosa Water District (Camrosa WD, Permittee, or Discharger)
Name of Facility	Camrosa Water Reclamation Facility (Camrosa WRF or Facility)
Facility Address	1900 South Lewis Road
	Camarillo, CA 93012
	Ventura County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Tertiary	34.181389 N	119.028611 W	Calleguas Creek

Table 3. Administrative Information

This Order was adopted on:	November 06, 2014
This Order shall become effective on:	January 1, 2015
This Order was amended on:	July 09, 2015
This Amended Order shall become effective on:	September 01, 2015
This Order shall expire on:	December 31, 2019
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date
The United States Environmental protection Agency and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

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

Chief Deputy E.O.

Samuel Unger, P.E., Executive Officer

for

Adopted: 11/06/14, Amendment Adopted: 07/09/15

Contents

Tables

Attachments

I. FACILITY INFORMATION

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

II. FINDINGS

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

A. Legal Authorities. This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC; commencing with section 13260).This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the CWC (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from this facility to surface waters.

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

C. Notification of Interested Parties. The Regional Water Board has notified the Camrosa Water District 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.

D. Provisions and Requirements Implementing State Law. Some of the provisions/requirements in this Order and the MRP are included to implement state law only. These provisions/requirements are not mandated or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies available for NPDES violations.

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

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Orders R4-2014-0210 and R4-2003-0156 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee is authorized to discharge from the identified facility and outfalls into waters of the United States and shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

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

B. 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 I.G. of Attachment D, Standard Provisions.

C. The monthly average effluent dry weather discharge flow rate from the Facility shall not exceed the design capacity.

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

E. 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 CWC.

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

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

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

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

Table 4. Final Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instant-aneous Maximum
Biochemical Oxygen Demand ($BOD_5$20°C)	mg/L	20	30	45	--	--
	lbs/day[1]	250	375	563	--	--
Total Suspended Solids (TSS)	mg/L	15	40	45	--	--
	lbs/day[1]	187	500	563	--	--
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--	--	--
Oil and Grease	mg/L	10	--	15	--	--
	lbs/day[1]	125	--	187	--	--
Settleable Solids	ml/L	0.1	--	0.3	--	--
Total Residual Chlorine	mg/L	--	--	0.1	--	--

[1] The mass emission rates are based on the plant design flow rate of 1.5 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will increase to 2.25 MGD and the mass-based effluent limitation will be modified upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instant-aneous Maximum
Total Dissolved Solids (TDS) (dry weather[2])	lbs/day[1]	10,633[3]	--	--		
TDS (wet weather[4])	mg/L	850	--	--		
Sulfate (dry weather[2])	lbs/day[1]	3127[3]				
Sulfate (wet weather[4])	mg/L	250	--	--		
Chloride (dry weather[2])	lbs/day[1]	1876[3]				
Chloride (wet weather[4])	mg/L	150	--	--		
Boron	mg/L	1.0	--	--		
	lbs/day[1]	12.5	--	--		
Ammonia Nitrogen[5]	mg/L	3.0	--	7.2		
	lbs/day[1]	--	--	6.5 x Q[6]		
[Nitrate + Nitrite] (as N)	mg/L	9.0[7]	--	--		
Nitrate (as N)	mg/L	9.0[7]	--	--		
Nitrite (as N)	mg/L	0.9[7]	--	--		
MBAS	mg/L	0.5	--	--		
	lbs/day[1]	6.25	--	--		

[2] Dry weather is defined in the *Calleguas Creek Watershed Salts Total Maximum Daily Load* (*Salts TMDL)* as the condition when the flows in the receiving water are below the 86th percentile flow, as explained in WDR § VII.O.

[3] This limitation is derived from the final Waste Load Allocations (WLAs) in the Salts TMDL, established by the Regional Water Board on October 4, 2007. The Salts TMDL became effective on December 2, 2008, following USEPA's approval.

Consistent with the Salts TMDL, these limits apply only during dry weather (as defined in the Salts TMDL, as explained in WDR § VII.O).

[4] Wet weather is defined in the *Salts TMDL* as the condition when the flows in the receiving water are greater than or equal to the 86th percentile flow, as explained in WDR § VII.O.

[5] This limitation is derived from the final WLA for ammonia nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL,* established by the Regional Water Board on October 24, 2002. Final WLAs became operative on October 24, 2004. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitations.

[6] *Q* represents the POTW flow at the time the water quality measurement is collected (not to exceed 1.5 MGD) and a conversion factor to lbs/day based on the units of measure for the flow.

[7] This limitation is derived from the final WLA for nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL*, established by the Regional Water Board on October 24, 2002. Final WLAs became effective on July 16, 2007. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitations.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instant-aneous Maximum
Copper	µg/L	27.0[8]	--	27.4[8]		
	lbs/day[9]	--	--	--		
Nickel	µg/L	149[8]		858[8]		
	lbs/day[9]	--	--	--		
Mercury[10]	µg/L	--	--	--		
	lbs/day[9]	--	--	--		
Chlorodibromomethane	µg/L	33	--	68		
	lbs/day[1]	0.41	--	0.85		
Dichlorobromomethane	µg/L	43	--	92		
	lbs/day[1]	0.54	--	1.15		
Carbon Tetrachloride	µg/L	0.49	--	0.98		
	lbs/day[1]	.006		.012		
Chlordane	µg/L	0.00059[11]	--	0.0012[11]		
4,4-DDD	µg/L	0.00084[11]	--	0.0017[11]		
4,4-DDE	µg/L	0.00059[11]	--	0.0012[11]		
4,4-DDT	µg/L	0.00059[11]	--	0.0012[11]		
Dieldrin	µg/L	0.00014[11]	--	0.00028[11]		
PCBs	µg/L	0.00017[11]	--	0.00034[11]		
Toxaphene	µg/L	0.00016[11]	--	0.00033[11]		
Chlorpyrifos	µg/L	0.0133[12]	--	0.024[12]		

[8] This limitation is derived from the WLA, as set forth in the *Calleguas Creek Watershed Metals TMDL* (Metals TMDL), established by the regional Water Board on June 8, 2006. The TMDL became effective on March 26, 2007. The Metals TMDL contains concentration-based WLAs that are expressed in total recoverable form. The final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitations.

[9] A mass-based final WLA was not established for the Camrosa WRF in the *Metals TMDL* because the Permittee does not contribute loading during dry weather. Concentration-based WLAs apply during wet weather when discharges occur.

[10] No interim or final WLAs were developed for this facility for mercury in the *Total Maximum Daily Load for Metals and Selenium in the Calleguas Creek, its Tributaries and Mugu Lagoon*.

[11] This limitation is derived from the final WLA, as set forth in the *Calleguas Creek Watershed Organochlorine Pesticide, Polychlorinated Biphenyls (PCB), and Siltation TMDL,* established by the Regional Water Board on July 7, 2005. The TMDL became effective on March 24, 2006. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitations.

[12] This limitation is derived from the final WLA as set forth in the *Calleguas Creek Watershed Toxicity, Chlorpyrifos, and Diazinon TMDL,* established by the Regional Water Board on July 7, 2005. The TMDL became effective on March 24, 2006. Consistent with the TMDL, the final WLA-based limit became operative on March 23, 2008. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitations.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instant-aneous Maximum
Diazinon	µg/L	0.1[12]	--	0.1[12]		
Chronic Toxicity[13,14]	Pass or Fail, % Effect (TST)	Pass[15]	--	Pass or % Effect < 50		

2. Interim Effluent Limitations – Discharge Point 001

a. ***Metals TMDL*-based Interim limits**: Interim Waste Load Allocations (WLAs) for the Facility have not been established in the *Metals TMDL* for copper, nickel, or mercury. The Permittee is currently meeting the final WLAs for copper, nickel, and mercury; therefore, no interim effluent limitation will be applied in this permit for these constituents. The Permittee shall maintain compliance with the final effluent limitations for the above mentioned parameters on the effective date of this permit.

b. **OC Pesticides, PCBs, and Siltation TMDL-based Interim limits**: Interim WLAs are included in the *OC Pesticides, PCBs, and Siltation TMDL* for chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, PCBs, and toxaphene applicable to the Facility. However, existing data indicate that the facility can consistently meet the final WLAs for the aforementioned parameters. Therefore, no interim effluent limitations will be applied in this permit for those pesticides. The Permittee shall maintain compliance with the final effluent limitations for the above-mentioned parameters on the effective date of this permit.

c. **Boron, Chloride, Sulfate, and TDS (Salts) TMDL-based Interim limits**: Interim WLAs for Salts have not been established for Camrosa WRF in the *Calleguas Creek Watershed Salts TMDL* for TDS, chloride, sulfate, and boron. The Facility has not discharged to surface water during the period under which

[13] The *Calleguas Creek Watershed Toxicity TMDL* includes a 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 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* Implementation Plan, these chronic toxicity WLA-based final effluent limitations will 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),* *http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tool-january-2010*.

[14] The Median Monthly Effluent Limitation (MMEL) shall be reported as "Pass" or "Fail." The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect." The MMEL for chronic toxicity shall only apply when there is a discharge 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."

[15] This is a Median Monthly Effluent Limitation.

interim limits were calculated and has not discharged to surface water since 2005. When effluent data are available, the Regional Water Board may adopt interim WLAs for Camrosa WRF. The Permittee shall maintain compliance with the final effluent limitations for the above-mentioned parameters on the effective date of this permit.

Table 5. Interim Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
N/A						

3. Other Effluent Limitations – Discharge Point 001

a. Percent Removal: The average monthly percent removal of BOD 5-day 20°C and TSS shall not be less than 85 percent.

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

c. The radioactivity of the discharge shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions.

d. The discharge to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the discharge shall be considered adequately disinfected if: 1) the median number of coliform organisms at some point in the treatment process does not exceed a most probable number (MPN) or colony forming units (CFU) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed; 2) the number of coliform organisms does not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period; and, 3) no sample exceeds 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.

e. 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 treated wastewater does not exceed any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time.

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

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Calleguas Creek:

1. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5°F above the natural temperature and shall not be raised above 86°F due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.

If the receiving water temperature, downstream of the discharge, exceeds 86°F as a result of the following:

a. High temperature in the ambient air; or,

b. High temperature in the receiving water upstream of the discharge,

then the exceedance shall not be considered a violation.

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

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

4. The total residual chlorine shall not exceed 0.1 mg/L in the receiving waters and shall not persist in the receiving water at any concentration that causes impairment of beneficial uses as a result of the discharge.

5. The *Escherichia coli* (*E. coli*) concentration in the receiving water shall not exceed the following, as a result of the discharge:

a. Geometric Mean Limits

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

b. Single Sample Limits

i. *E. coli* density shall not exceed 235/100 mL.

6. 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 the discharge:

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

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

7. 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.

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

9. 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.

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

11. 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.

12. 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.

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

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.

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

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

17. 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.

18. No physical evidence of wastes discharged shall be visible at any time in the water or on beaches, shores, rocks, or structures.

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.

20. Ammonia shall not be present at levels that, when oxidized to nitrate, pose a threat to groundwater quality.

21. Chronic Toxicity Narrative Receiving Water Quality Objective

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

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

22. The wastes discharged shall not cause the ammonia water quality objective (WQO) in the Basin Plan to be exceeded in the receiving waters. Compliance with the ammonia WQOs shall be determined by comparing the receiving water ammonia concentration to the ammonia water quality objective in the Basin Plan. The ammonia water quality objective can also be calculated using the pH and temperature of the receiving water at the time of collection of the ammonia sample.

B. Groundwater Limitations

The wastes discharged shall not cause the underlying groundwater to be degraded, except as consistent with State Water Board Resolution No. 68-18, exceed WQOs, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Permittee shall comply with all Standard Provisions included in Attachment D.

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

a. 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 Permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.

h. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject to under section 311 of the CWA.

i. Discharge or wastes to any point other than specifically described in this Order is prohibited.

j. The Permittee 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. A copy of these waste discharge specifications shall be maintained at the discharge Facility so as to be available at all times to operating personnel.

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

n. The Permittee 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.

o. In the event of any change in name, ownership, or control of these waste disposal facilities, the Permittee 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.

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

q. The Permittee 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.

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

s. 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 Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

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

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 § 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 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 Permittee 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 Permittee shall notify the Chief of the Watershed Regulatory Section at the Regional Water Board by telephone (213) 576-6616, 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.

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

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 Permittee 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 Permittee 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 add or revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or a revision of any of the Calleguas Creek TMDLs.

j. This Order may be reopened to modify the TDS, sulfate, and chloride final effluent limitations to include an AF, 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 may be reopened and modified to remove the Storm Water Pollution Prevention Plan (SWPPP) monitoring requirements if the Permittee provides sufficient evidence that storm water is completely captured or retained on-site. Sufficient evidence shall include the approved SWPPP signed by a Professional Engineer (PE) and confirming that storm water runoff will be retained in a 5-year 24-hour storm event.

n. This order may be reopened and modified to include an increased capacity rating if the Permittee provides sufficient evidence that each unit process of the treatment train can support the increased capacity. The Permittee had previously submitted an Engineering Report regarding the rerating study in 2008, however an updated version of this Engineering Report is required to provide sufficient evidence that the facility will be able to support the increased capacity.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

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

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 will be revised in 2014 to incorporate the methods, sites, and schedule for compliance salts 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. Special Study for Constituents of Emerging Concern (CECs)

i. CECs Monitoring Requirement in the Effluent

(1). The Permittee shall conduct a special study to investigate the CECs in the effluent discharge. The Permittee shall follow the requirements of the work plan as discussed in the MRP and the Fact Sheet. Analysis under this section is for monitoring purposes only. Analytical results obtained for this study will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

d. Treatment Plant Capacity

The Facility is currently operating around 1.33 MGD and it is rated for 1.5 MGD (89 percent capacity). The Permittee has notified the Regional Water Board that they are in the process of gathering data to rerate the Facility at a higher capacity (2.25 MGD). An Engineering Report was created in 2008 to analyze each process in the treatment train to determine if additional construction would be necessary for an increased capacity rating. The results of this report indicated that the chlorine contact basin would need a longer contact time in order to achieve proper disinfection. A study is currently being conducted to show that a shorter contact time is sufficient to achieve the same level of disinfection. The Permittee shall supply the results of this study and any other requested information to the State Water Board, Division of Drinking Water, and the Regional Water Board for evaluation of the increased capacity.

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 Permittee is required to submit a SWPPP using Attachment I of this Order as guidance. Per information submitted by the Permittee, storm water from the Camrosa WRF does not leave the property and is captured in a storm water retention basin or into an on-site drainage system that directs the flow through the facility treatment process. The Permittee filed a notice of termination (NOT) on April 25, 2014 and the storm water from the Camrosa WRF is no longer regulated by the general NPDES permit for storm water dischargers associated with industrial activity. Instead, the storm water requirements shall be incorporated in this order.

b. Spill Clean-up Contingency Plan (SCCP)

Within 90 days of the effective date of this Order, the Permittee is required to submit a SCCP, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Permittee'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 Permittee shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Permittee 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 X.B.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 Permittee shall develop and conduct a 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; or, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either of the following is true:

i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or,

ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in the MRP.

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:

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

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

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

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

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

(1). All PMP monitoring results for the previous year;

(2). A list of potential sources of the reportable pollutant(s);

(3). A summary of all actions undertaken pursuant to the control strategy; and

(4). A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. 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. The Permittee 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, 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 Permittee shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

c. The Permittee 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.

5. Special Provisions for Municipal Facilities (Publicly-Owned Treatment Works [POTWs] Only)

a. Sludge Disposal Requirements

i. All sludge 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 enforceable by USEPA.

ii. The Permittee is separately required to comply with the requirements in State Water Board Order No. 2004-10-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 Permittee'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 Permittee's biosolids.

iii. The Permittee shall separately comply, if applicable, with WDRs issued by other Regional Water Boards to which jurisdiction the biosolids are transported and applied.

iv. The Permittee shall assure that haulers transporting sludge off site for treatment, storage, use, or disposal take all necessary measures to keep the sludge contained. The Permittee shall maintain and have haulers adhere to a spill clean-up plan. Any spills shall be reported to USEPA and the Regional Water Board or state agency in which the spill occurred. All trucks hauling sludge shall be thoroughly washed after unloading at the field or at the receiving facility.

v. The Permittee shall furnish this Regional Water Board with a copy of any report submitted to USEPA, the State Water Board or other Regional Water Board, with respect to municipal sludge or 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 Permittee 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

i. The Permittee's collection system is part of the system that is subject to this Order. As such, the Permittee must properly operate and maintain its collection system (40 CFR § 122.41(e)). The Permittee 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)).

See the Order at Attachment D, subsections I.D, V.E, V.H, and I.C., and the following section of this Order.

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 Permittee shall make notifications as required below:

i. In accordance with the requirements of Health and Safety Code section 5411.5, the Permittee 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 Permittee 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 Permittee 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 Permittee 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:

(1). The location, date, and time of the release;

(2). The route of the spill including the water body that received or will receive the discharge;

(3). An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;

(4). If ongoing, the estimated flow rate of the release at the time of the notification; and,

(5). The name, organization, phone number and email address of the reporting representative.

b. Monitoring

For spills, overflows and bypasses reported under section VI.C.6.a, the Permittee shall monitor as required below:

i. To define the geographical extent of the spill's impact, the Permittee 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 Permittee 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). This monitoring shall be done on a daily basis 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 VI.C.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 Permittee 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:

(1). Agency, NPDES No., Order No., and MRP CI No., if applicable;

(2). The location, date, and time of the discharge;

(3). The water body that received the discharge;

(4). A description of the level of treatment of the sewage or other waste discharged;

(5). An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;

(6). The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,

(7). 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 Permittee 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 (SSO WDR), 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 Permittee 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 Permittee's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. Records

The Permittee 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 VI.C.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 SSO WDR.

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 Implementation Plan*.

f. Consistency with SSO 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; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSO to the State Water Board's online SSOs database. Regardless of the coverage obtained under the SSO WDR, the Permittee's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Permittee must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

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

7. Compliance Schedules

There are no compliance schedules included in this NPDES Order.

Table 6. Compliance Schedule for Final Effluent Limitations

Task No.	Description	Start Date	End Date
N/A			

VII. COMPLIANCE DETERMINATION

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

A. General

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

B. 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, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Permittee may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee may be considered out of compliance for that calendar month. The Permittee 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 Permittee 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 Permittee 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.

D. 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 Permittee 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 Permittee 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.

E. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Permittee will be considered out of compliance for that parameter for that one day only within the reporting period. 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..

F. Instantaneous Minimum Effluent Limitation

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

G. Instantaneous Maximum Effluent Limitation

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

H. 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, an alleged violation will be flagged and the Permittee 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 Permittee 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.

I. Median Monthly Effluent Limitation (MMEL)

If the median of daily discharges over a calendar month exceeds the MMEL for a given parameter, an alleged violation will be flagged and the Permittee will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of 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.

J. 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 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.

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

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of no more than three independent chronic toxicity tests, conducted within the same calendar month and analyzed using the TST statistical approach, results in "Fail." The MMEL for chronic toxicity shall only apply when there is a discharge 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* (U.S. EPA 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 IV.C.5). 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 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 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 Permittee, USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program as needed. The Board may consider results of any TIE/TRE studies in an enforcement action.

K. 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:

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

When preferred, the Permittee may substitute mass loadings and mass emissions for the concentrations.

L. 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.

M. 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.

N. 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.

O. Compliance with 2,3,7,8-TCDD Equivalents

TCDD equivalents shall be calculated using the following formula, where the minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Permittee shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Permittee 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

MLs and TEFs

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

Congeners	MLs (pg/L)	TEFs
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

P. Compliance with Calleguas Creek Salts TMDL Effluent Limitations

The Camrosa Water Reclamation Facility discharges to Reach 3 of the 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 seasonal WLAs for TDS, Sulfate, and Chloride. Federal regulations require that NPDES permits incorporate WQBELs consistent with the requirements and assumptions of any available WLAs.

WLAs established for the Camrosa Water Reclamation Facility in the *Salts TMDL* will be implemented through final effluent limitations contained in the NPDES permit and interim effluent limitations may be provided in a separate amended Time Schedule Order. Compliance will be determined through monitoring of final effluent discharge as defined in the NPDES permit. The proposed effluent permit limits will be applied as end-of-pipe mass-based monthly average effluent limits. A daily maximum effluent limit is not required because chloride is not expected to have an immediate or acute effect on the beneficial uses. Compliance with the minimum salt export requirements for the Camrosa WRF will be based on the salt export from the subwatershed to which they discharge. The mechanisms for meeting the minimum salt export requirements and for monitoring progress towards meeting those requirements will be included in the monitoring program work plan and approved by the Executive Officer.

The Facility's mass-based WLAs are calculated as the POTW effluent flow rate multiplied by the water quality objective and include a mass-based adjustment factor (AF) that is subtracted from the product of the flow-rate and the water quality objective. AF is set equal to the difference between the minimum salts export requirement to attain a salt balance in the subject reaches 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 *Salts TMDL* WLAs apply to Camrosa Water Reclamation Facility during dry weather, when the 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 California State University Channel Islands (CSUCI) is less than 31 cubic feet per second (cfs). During wet weather, the loading capacity of the stream is significantly increased by storm water flows with very low salt concentrations. Any discharges from the Facility during wet weather would be assimilated by these large storm flows and would not cause exceedances of water quality objectives.

<u>The dry-weather final effluent limitation for Salts will be calculated as follows</u>:

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 limitation (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

Boron, lbs/day = 1.0 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 the flow.

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

However, the use of adjustment factors (AFs) is subject to approval by the Regional Water Board, following the demonstration of evidence presented by the Permittee. POTWs wanting to use AFs must apply to the Regional Water Board for approval and submit the following documentation together with their request: water supply chloride concentrations; receiving water chloride concentrations; the effluent mass; and, evidence of increased salt exports to offset the increased discharges from the POTW.

Camrosa WRF is currently treating groundwater for potable water use and discharging brine to the brine line. The WRF, however, has not discharged to Calleguas Creek since 2005 and typically does not discharge during dry weather. The AF term in the formula above is set to zero until the Camrosa Water District provides the necessary documentation and requests an AF for the Facility and the Regional Water Board approves it. The AF term drops out of the equation, and the final effluent limitations are expressed as follows:

Chloride, lbs/day = 150 x Q - AF = 150 x 1.5 x 8.34 = 1876

TDS, lbs/day = 850 x Q – AF = 850 x 1.5 x 8.34 = 10,633

Sulfate, lbs/day = 250 x Q – AF = 250 x 1.5 x 8.34 = 3127

where;

Q = represents the product of Facility's design capacity and a conversion factor, to convert from MGD to lbs/day.

Wet-weather definition. Wet-weather is any day when the flow in the receiving water is equal to or greater than the 86th percentile flow of the receiving water. Wet weather conditions exist when flow in Calleguas Creek at CSUCI is greater than or equal to 31 cfs at USGS gauge 11106550. The wet-weather final effluent limitations applicable to Camrosa WRF will be as follows:

The wet-weather final effluent limitation for Salts will be applied as follows:

Parameter	Units	Effluent Limitations (Average Monthly)
Chloride	mg/L	150
TDS	mg/L	850
Sulfate	mg/L	250

During this permit cycle, the wet-weather final effluent limitations listed above for TDS, chloride, and sulfate will apply on the effective date of this Order, but, if adopted, a TSO may establish an interim limit and time schedule to achieve compliance with the final effluent limitations. The mass emission rates are based on the plant design flow rate of 1.5 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

Q. Compliance with Calleguas Creek Metals TMDL for Mercury in Suspended Solids

A mass-based limit has not been developed for mercury since the Facility only discharges to the Calleguas Creek during extreme storm events.

R. Mass Emission Rate

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

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

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

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. 'Q_t' is the total flow rate of the combined waste streams.

S. Bacterial Standards and Analysis

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.

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.

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.

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.

T. Single Operational Upset (SOU)

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

1. A 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.

2. A Permittee may assert SOU to limit liability only for those violations which the Permittee submitted notice of the upset as required in Provision V.E.2(b) of Attachment D – Standard Provisions.

3. 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).

4. 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:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

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

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

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

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 waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

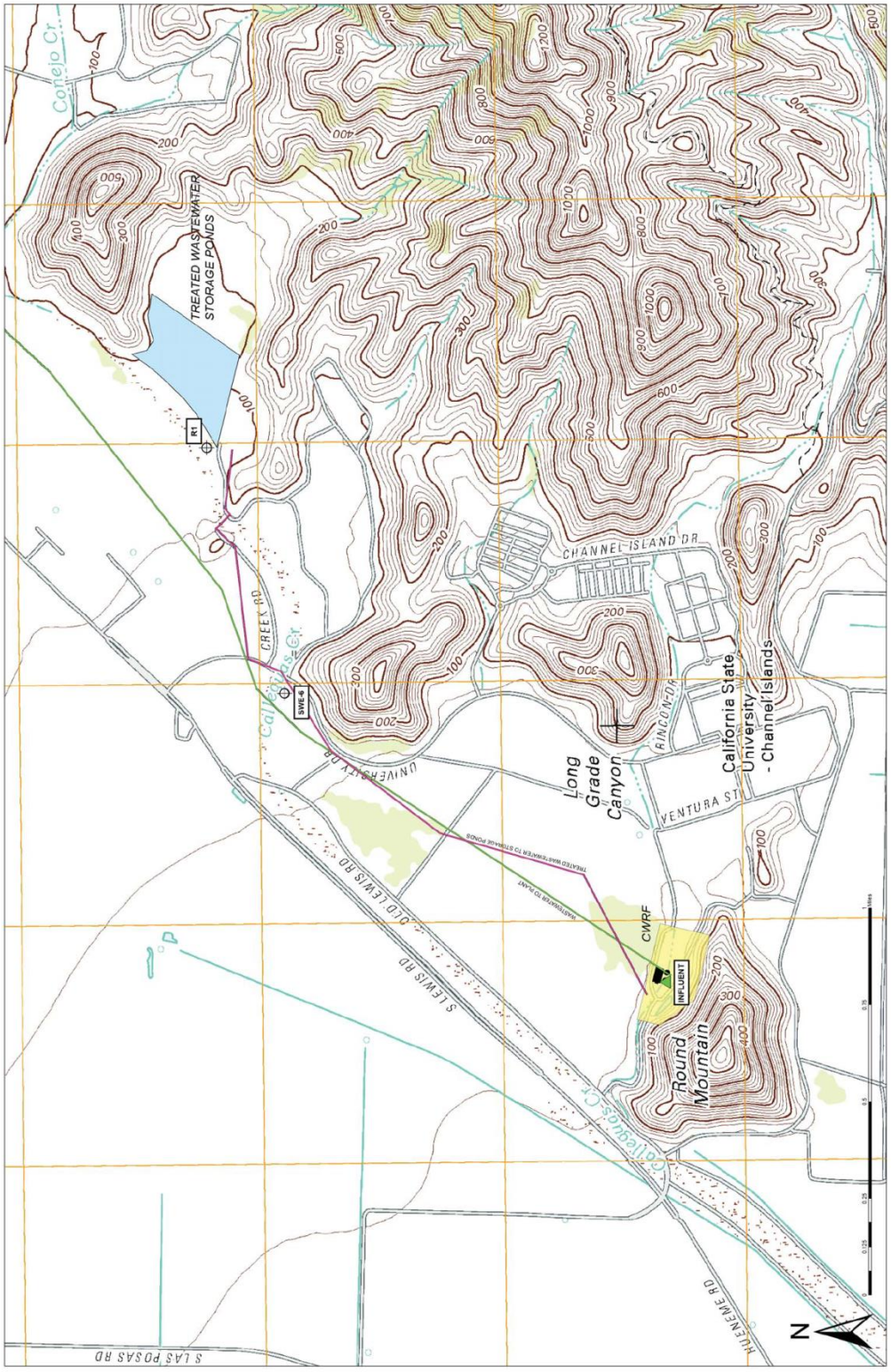
Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

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

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

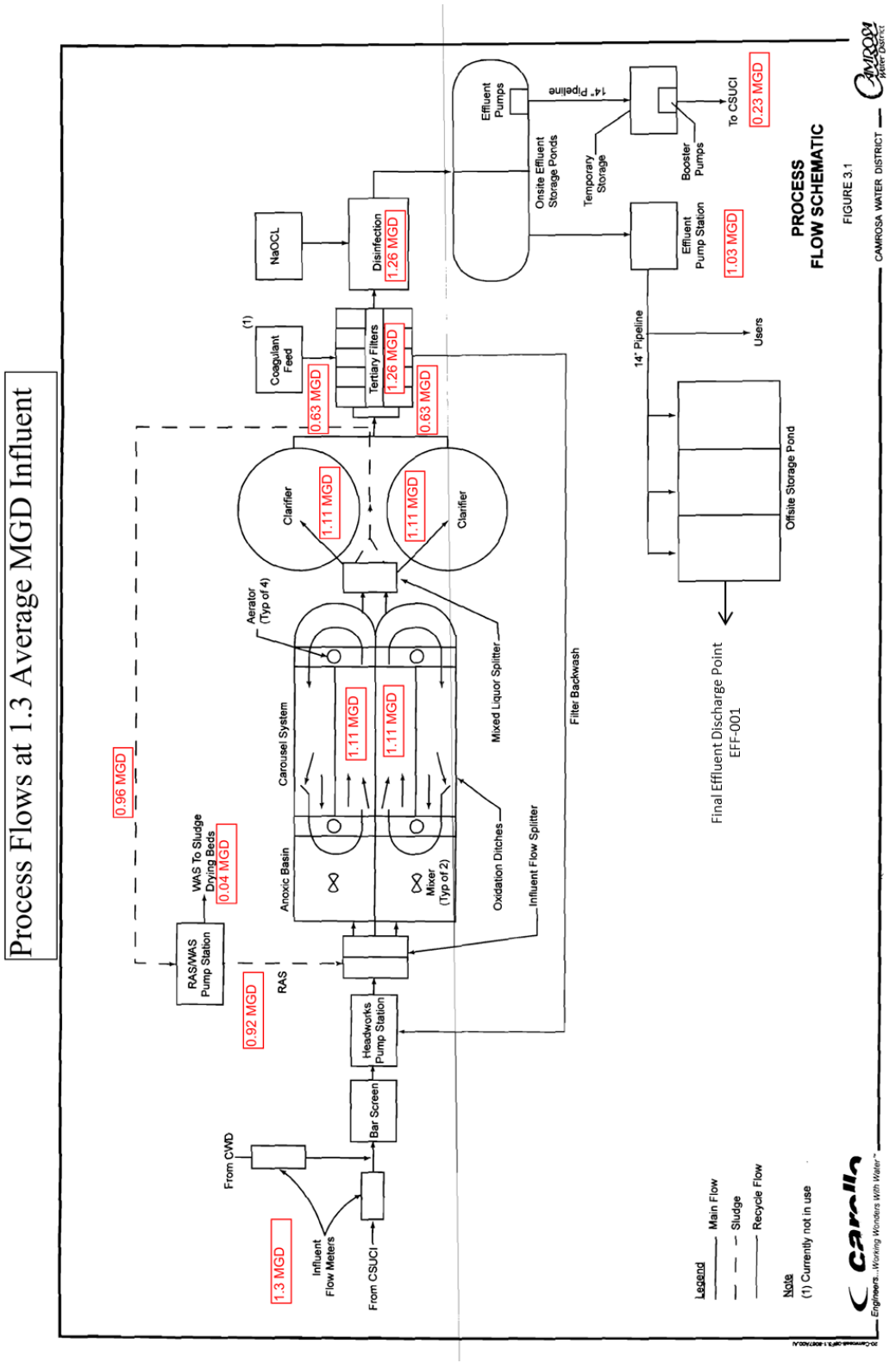
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first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

ATTACHMENT B1 – Map of Camrosa WRF & Surrounding Area



ATTACHMENT B2 – Map of Camrosa WRF

ATTACHMENT C – Flow Schematic of Camrosa WRF



ATTACHMENT D – Standard Provisions

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Permittee must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA), its regulations, and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 CFR § 122.41(a); California Water Code (CWC) sections 13261, 13263, 13264, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Permittee shall comply with effluent standards or prohibitions established under Part 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (Title 40 of the Code of Federal Regulations (40 CFR) § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

The Permittee 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. section 1318(a)(4)(B); 40 CFR § 122.41(i); CWC sections 13267 and 13383):

1. Enter upon the Permittee'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. section 1318(a)(4)(B)(i); 40 CFR § 122.41(i)(1); CWC sections 13267 and 13383);

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. section 1318(a)(4)(B)(ii); 40 CFR § 122.41(i)(2); CWC sections 13267 and 13383);

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. section 1318(a)(4)(B)(ii); 40 CFR § 122.41(i)(3); CWC sections 13267 and 13383); and

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

G. Bypass

1. Definitions

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

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

2. *Bypass not exceeding limitations*. The Permittee may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2))

3. *Prohibition of bypass*. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee 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 Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii))

5. Notice

a. *Anticipated bypass*. If the Permittee knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR § 122.41(m)(3)(i))

b. *Unanticipated bypass*. The Permittee shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR § 122.41(m)(3)(ii))

H. Upset

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

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

2. *Conditions necessary for a demonstration of upset*. A Permittee 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 Permittee 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 Permittee submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2))

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Permittee 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 Permittee 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); Wat. Code, section 13267 and 13383)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR § 122.41(k))

2. *Signatory requirements for a municipality, State, Federal, or other public agency.* All applications submitted to the Regional Water Board shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR § 122.22(a)(3)).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 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))

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c))

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d))

C. Monitoring Reports

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

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

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

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

1. The Permittee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is

expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR § 122.41(l)(6)(i))

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

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

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

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

F. Planned Changes

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

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under § 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 CFR § 122.41(l)(1)(ii))

3. The alteration or addition results in a significant change in the 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))

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR § 122.41(l)(7))

I. Other Information

When the Permittee 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 Permittee shall promptly submit such facts or information. (40 CFR § 122.41(l)(8))

VI. STANDARD PROVISIONS – ENFORCEMENT

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

B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the 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).

C. 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))

D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 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)).

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this 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)).

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

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

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

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

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

ATTACHMENT E – Monitoring and Reporting Program

Contents

Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-6769

Section 308(a) of the federal Clean Water Act and sections 122.41(h), (j), (l), 122,44(i), and 122.48 of Title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) 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 federal and California laws and/or regulations.

I. GENERAL MONITORING PROVISIONS

A. 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, June, August, and December. Semiannual analyses shall be performed during the months of June and December. Annual analyses shall be performed during the month of June (except for bioassessment monitoring, which will be conducted in the spring/summer). Should there be instances when monitoring could not be done during these specified months, the Permittee 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-7 of MRP.

B. 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. 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) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided 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.

C. 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 actually analyzed. The Permittee 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.

D. The Permittee 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.

E. 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.

F. 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."

G. 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.

H. The Permittee shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the permittee 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 J, below. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Permittee must select the method with the lowest ML for compliance purposes. The Permittee shall include in the Annual Summary Report a list of the analytical methods employed for each test.

I. The Permittee 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 Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section J, below, the Permittee's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

J. 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 Permittee's permit in any of the following situations:

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

b. When the Permittee 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;

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

d. When the Permittee 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,

e. When the Permittee 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 Permittee, 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.

K. If the Permittee 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.

L. The Permittee 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.

M. 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.

a. 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.

b. 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.

N. 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 Permittee shall participate in the implementation of and comply with the Watershed-wide Monitoring Program. The Camrosa WD'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 Permittee 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. The first annual report covering the period from January 1 through December 31, 2014, should be received in the Regional Water Board office by July 1, 2015.

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 Permittee'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.

Until such time when a watershed-wide monitoring program is developed, Camrosa WRF shall implement the monitoring program in section IX.C of this MRP.

II. MONITORING LOCATIONS

The Permittee 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 Serial Number	Monitoring Location Name	Monitoring Location Description
Influent Monitoring Station		
--	**INF-001**	The influent sampling station 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.
Effluent Monitoring Stations		
001	**EFF-001**	The effluent sampling station shall be located at the point of discharge from Percolation 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 N and Longitude 119.028611 W.
Receiving Water Monitoring Stations		
--	**R-1**	Calleguas Creek, 300 feet upstream of confluence with the channel that conveys the discharge from Discharge Serial No. 001 to the creek. Latitude: 34.182153 N Longitude: 119.029183 W
--	**SWE-6**	Calleguas Creek, downstream of Discharge Serial No. 001 and just upstream of the Camarillo Drive bridge crossing. Latitude: 34.179094 N Longitude: 119.039378 W
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).

The North latitude and West longitude information in Table 1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.

A. Monitoring Location INF-001

1. The Permittee shall monitor influent to the Facility at INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	recorder	continuous[1]	[2]
pH	pH unit	grab	daily	[2]
Total Suspended Solids (TSS)	mg/L	24-hour composite	weekly	[2]
Biochemical Oxygen Demand (BOD_5 20°C)	mg/L	24-hour composite	weekly	[2]
TDS	mg/L	24-hour composite	quarterly	[2]
Chloride	mg/L	24-hour composite	quarterly	[2]
Sulfate	mg/L	24-hour composite	quarterly	[2]
Ammonia as N	mg/L	24-hour composite	quarterly	[2]
Nitrate plus nitrite as N	mg/L	24-hour composite	quarterly	[2]
Total nitrogen	mg/L	24-hour composite	quarterly	[2]
Chlorodibromomethane	µg/L	24-hour composite	quarterly	[2]
Dichlorobromomethane	µg/L	24-hour composite	quarterly	[2]
Carbon Tetrachloride	µg/L	24-hour composite	quarterly	[2]

IV. 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.

A. Monitoring Location EFF-001

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

[1] Total daily flow and instantaneous peak daily flow (24-hr basis). Actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).

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

Table E-3a. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Total waste flow	MGD	recorder	continuous[3]	[5]
Turbidity[4]	NTU	grab	when discharged[3]	[5]
Total residual chlorine	mg/L	grab	when discharged[3]	--
Total coliform[4]	MPN/100mL or CFU/100mL	grab	Daily[6]	[5]
Fecal coliform[4]	MPN/100mL or CFU/100mL	grab	Daily[6,7]	[5]
E. coli	MPN/100mL or CFU/100mL	grab	daily[6,8]	[5]
Temperature[9]	°F	grab	daily[6]	[5]
pH[9]	pH units	grab	daily[6]	[5]
Settleable solids	mL/L	grab	weekly	[5]
Total Suspended Solids (TSS)[10]	mg/L	24-hour composite	weekly	[5]

[3] Where continuous monitoring of a constituent is required, the following shall be reported:
Total waste flow – Total daily and peak daily flow (24-hour basis);
Turbidity – maximum daily value, total amount of time each day the turbidity exceeded 5 NTU, flow-proportioned average daily value. A grab sample can be used to determine compliance with the 10 NTU limit. A flow- weighted 24-hour composite sample may be used in place of the recorder to determine the flow-proportioned average daily value.
Total residual chlorine – maximum value within a calendar day

[4] Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.

[5] 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.

[6] Daily samples shall be collected Monday through Friday, except for holidays.

[7] Fecal coliform testing shall be conducted only if total coliform testing is positive.

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

[9] Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total Kjeldahl nitrogen, pH, and temperature sampling shall be conducted on the same day or as close to concurrently as possible.

[10] During each reporting period, if effluent monitoring results show that both the TSS and the Mercury water column final effluent limitations were exceeded, then implementation of the Sediment Monitoring Program is

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
BOD_5 20°C	mg/L	24-hour composite	weekly	[5]
Oil and grease	mg/L	grab	quarterly	[5]
Dissolved oxygen	mg/L	grab	monthly	[5]
Total Dissolved Solids	mg/L	24-hour composite	monthly	[5]
Sulfate	mg/L	24-hour composite	monthly	[5]
Chloride	mg/L	24-hour composite	monthly	[5]
Boron	mg/L	24-hour composite	quarterly	[5]
Fluoride	mg/L	24-hour composite	quarterly	[5]
Ammonia Nitrogen[9]	mg/L	24-hour composite	monthly	[5]
Nitrite nitrogen[9]	mg/L	24-hour composite	monthly	[5]
Nitrate nitrogen[9]	mg/L	24-hour composite	monthly	[5]
Nitrate + Nitrite (as nitrogen)[9]	mg/L	24-hour composite	monthly	[5]
Organic nitrogen[9]	mg/L	24-hour composite	monthly	[5]
Total nitrogen[9]	mg/L	24-hour composite	monthly	[5]
Total Kjeldal Nitrogen (TKN)[9]	mg/L	24-hour composite	monthly	[5]
Total phosphorus	mg/L	24-hour composite	monthly	[5]
Orthophosphate-P	mg/L	24-hour composite	monthly	[5]
Surfactants (MBAS)	mg/L	24-hour composite	quarterly	[5]
Surfactants (CTAS)	mg/L	24-hour composite	quarterly	[5]
Total hardness ($CaCO_3$)	mg/L	24-hour composite	monthly	[5]
Chronic toxicity	Pass or Fail, % Effect (TST)	24-hour composite	monthly[11]	[5]
Copper	µg/L	24-hour composite	quarterly	[5]
Mercury[10]	µg/L	24-hour composite	quarterly	[5]
Nickel	µg/L	24-hour composite	monthly	[5]
Cyanide	µg/L	grab	quarterly	[5]
Chlorodibromomethane	µg/L	grab	monthly	[5]
Dichlorobromomethane	µg/L	grab	monthly	[5]
4,4-DDT	µg/L	24-hour composite	quarterly	[5]
4,4-DDE	µg/L	24-hour composite	quarterly	[5]
4,4-DDD	µg/L	24-hour composite	quarterly	[5]
Hexavalent Chromium	µg/L	grab	semiannually	[5]
PCBs[12]	µg/L	24-hour composite	quarterly	**5**

required. Sediment monitoring of the effluent shall begin during the first discharge event following the effluent exceedances.

[11] The Permittee shall conduct whole effluent toxicity monitoring as outlined in section V. Please refer to section V.A.7. of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as "Pass" or "Fail." The maximum daily single result shall be reported as "Pass or Fail" and "% Effect." When there is a discharge 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."

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Toxaphene	µg/L	24-hour composite	quarterly	[5]
Chlordane	µg/L	24-hour composite	quarterly	[5]
Dieldrin	µg/L	24-hour composite	quarterly	[5]
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hour composite	annually	[13]
Perchlorate	µg/L	grab	annually	[14]
Methyl tert-butyl-ether (MTBE)	µg/L	grab	annually	[14]
1,4-dioxane	µg/L	grab	annually	[14]
1,2,3-Trichloropropane	µg/L	grab	annually	[14]
N-Nitrosodimethylamine (NDMA)	µg/L	24-hour composite	semiannually	[5]
Chlorpyrifos	µg/L	24-hour composite	semiannually	[5]
Diazinon	µg/L	24-hour composite	semiannually	[5]
Remaining EPA priority pollutants[15] excluding asbestos	µg/L	24-hour composite; grab for VOCs	semiannually	[5]

2. Total Residual Chlorine Additional Monitoring

Continuous monitoring of total residual chlorine at the current location shall serve as an internal trigger for the increased grab sampling at EFF-001 if either of the following occurs, except as noted in item c:

a. Total residual chlorine concentration excursions of up to 0.3 mg/L lasting greater than 15 minutes; or

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[12] The sum of PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, and PCB 1260 when monitoring using USEPA method 608.

[13] 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.

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

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

b. Total residual chlorine concentration peaks in excess of 0.3 mg/L lasting greater than 1 minute.

c. Additional grab samples need not be taken if it can be demonstrated that a stoichiometrically appropriate amount of dechlorination chemical has been added to effectively dechlorinate the effluent to 0.1 mg/L or less for peaks in excess of 0.3 mg/L lasting more than 1 minute, but not for more than five minutes.

3. Salts Dry- and Wet-Weather Monitoring and Reporting Requirements

The Permittee shall determine the applicable wet- or dry-weather flow condition at RSW-003D and the amount of rainfall at the time of effluent sampling. The Permittee shall tabulate the date of sampling, average flow at RSW-003D, amount of rainfall, wet or dry weather, applicable effluent limitation (wet- or dry-weather), and actual effluent concentration/mass.

Table E-3b. Salts Monitoring and Reporting Requirements

Parameter	Date of Sampling	Flow (cfs)	Rainfall Amount (inches)	Wet or Dry Weather?	Applicable Effluent Limitation	Actual Effluent Concentration/ Mass
TDS (wet-weather)						
TDS (dry-weather)						
Sulfate (wet-weather)						
Sulfate (dry-weather)						
Chloride (wet-weather)						
Chloride (dry-weather)						
Boron (wet-weather)						
Boron (dry-weather)						

4. Sediment Monitoring of Effluent at Monitoring Location EFF-001

The Permittee must sample the discharge at the point following final treatment, prior to entering the receiving water. 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 or Regional Water Board (collectively Water Boards) shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the California Department of Public Health in accordance with Water Code Section 13176.

Table E-3c. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Mercury	mg/kg	Grab	1/Year *

* Sediment Monitoring is only required during a reporting period if effluent water column monitoring results for both TSS and Mercury are exceeded. If monitoring is not triggered because both TSS and Mercury limits were not exceeded, then at a minimum, sediment monitoring must occur at least once during the five-year permit term.

V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

A. Chronic Toxicity

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

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

2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected 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**.**

3. Chronic Freshwater Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity <1 ppt, the Permittee 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. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).

b. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).

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

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted beginning with the next discharge event following the effective date of this Order. The Permittee 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 methods 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* tests. 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 screenings shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required (24 months later).

Species sensitivity rescreening is required every 24 months 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 Permittee 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 Permittee may proceed with suites of screening tests for a minimum of three, but not to exceed five suites. Due to the intermittency of the discharge, the need for additional suites of screening tests will be determined on a case by case basis.

The receiving water and effluent toxicity tests shall be performed on the same day or as close to concurrently as possible. The species used to conduct the receiving water monitoring shall be the most sensitive species from the most recent species sensitivity screening. The species to be used for the receiving water monitoring during the first discharge event after the effective date of this Order shall be the previous most sensitive species, *Pimephales promelas*.

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. Quality Assurance and Additional Requirements

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

a. The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a chronic toxicity test IWC 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 (H_o) for the TST approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. 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.

b. The Median Monthly Effluent Limitation (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."

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

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

Species & U.S. EPA Test Method Number	Test Acceptability Criteria (TAC)
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 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 of at least $1X10^6$ cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

d. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

e. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC25[16].

f. The Permittee 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).

[16] 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.

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

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

a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

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

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

7. Accelerated Monitoring Schedule for Monthly Median 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 Permittee becomes aware of this result, the Permittee shall implement an accelerated monitoring schedule within 48 hours for the *Ceriodaphnia dubia* test, and within 5 calendar days for both the *Pimephales promelas* and *Selenastrum capricornutum* tests. The accelerated monitoring schedule shall consist of four toxicity tests (including the IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass", the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Permittee shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

8. Toxicity Reduction Evaluation (TRE) Process

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

a. Preparation and Implementation of Detailed TRE Work Plan. The Permittee shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 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:

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

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

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

b. TIE Implementation. The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Chronic TIE Manual: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase 1 (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.

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

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

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

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

9. Reporting

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

a. The 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-7.

b. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

c. 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.

d. 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 completion of the final TIE/TRE report, the Permittee shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

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

f. Graphical plots clearly showing the laboratory's performance for the reference toxicant for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.

g. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request from the Regional Water Board Chief Deputy Executive Officer or Executive Officer.

B. Ammonia Removal

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

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

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

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

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

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the

Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

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

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations SWE6 and R1

1. The Permittee shall monitor Calleguas Creek at SWE6 and R1 as follows:

Table E-5a. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency[17]	Required Analytical Test Method
Total flow	cfs	calculation	monthly	--
Turbidity	NTU	grab	monthly	[18]
Temperature	°F	grab	monthly	[18]
pH	pH units	grab	monthly	[18]
Dissolved oxygen	mg/L	grab	monthly	[18]
E. Coli	MPN/100ml or CFU/100ml	grab	monthly	[18]
Total residual chlorine	mg/L	grab	monthly[19]	[18]
Settleable Solids	mL/L	grab	monthly	[18]
Total Suspended Solids	mg/L	grab	monthly	[18]
BOD_5 20°C	mg/L	grab	monthly	[18]
Chemical Oxygen Demand (COD)	mg/L	grab	monthly	[18]
Oil and grease	mg/L	grab	monthly	[18]
Total Hardness ($CaCO_3$)	mg/L	grab	monthly	[18]
Conductivity	µmho/cm	grab	monthly	[18]
Total Dissolved Solids	mg/L	grab	monthly	[18]
Sulfate	mg/L	grab	monthly	[18]

[17] 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 R1 shall be monitored at least once during that permit cycle.

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

[19] Total residual chlorine monitoring is applicable when chlorination process is in operation.

Parameter	Units	Sample Type	Minimum Sampling Frequency[17]	Required Analytical Test Method
Chloride	mg/L	grab	monthly	[18]
Boron	mg/L	grab	monthly	[18]
Fluoride	mg/L	grab	monthly	[18]
Chronic toxicity[20]	Pass or Fail, % Effect (TST)	grab	quarterly	[18]
Nitrate nitrogen	mg/L	grab	monthly	[18]
Nitrite nitrogen	mg/L	grab	monthly	[18]
Ammonia nitrogen	mg/L	grab	monthly	[18]
Organic nitrogen	mg/L	grab	monthly	[18]
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	monthly	[18]
Total nitrogen	mg/L	grab	monthly	[18]
Total phosphorus	mg/L	grab	monthly	[18]
Orthophosphate-P	mg/L	grab	monthly	[18]
Surfactants (MBAS)	mg/L	grab	monthly	[18]
Surfactants (CTAS)	mg/L	grab	monthly	[18]
Mercury	µg/L	grab	quarterly	[18]
Bis(2-ethyhexyl)Phthalate	µg/L	grab	quarterly	[18]
Chlorpyrifos	µg/L	grab	semiannually	[18]
Diazinon	µg/L	grab	semiannually	[18]
4,4'-DDE	µg/L	grab	quarterly	[18]
4,4'-DDT	µg/L	grab	quarterly	[18]
Lead	µg/L	grab	quarterly	[18]
1,4-Dioxane	µg/L	grab	semiannually	[21]
Perchlorate	µg/L	grab	semiannually	[21]
1,2,3-Trichloropropane	µg/L	grab	semiannually	[21]
Methyl tert-butyl-ether (MTBE)	µg/L	grab	annually	[21]

[20] The Permittee shall conduct Whole Effluent Toxicity monitoring as outlined in section V. Please refer to section V.A.7. of this MRP for the accelerated monitoring schedule. The median monthly summary result is a threshold value for a determination of not meeting the narrative receiving water objective and shall be reported as "Pass" or "Fail." The maximum daily single result is a threshold value for a determination of not meeting the narrative receiving water objective and shall be reported as "Pass or Fail" and "% Effect." When there is discharge more than one day in a calendar month period, up to three independent toxicity tests 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 Permittee, then the Permittee shall initiate accelerated monitoring. For example, 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.

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

Parameter	Units	Sample Type	Minimum Sampling Frequency[17]	Required Analytical Test Method
Radioactivity	Pci/L	grab	annually	[22]
Remaining EPA priority pollutants[23] excluding asbestos	µg/L	grab	semiannually	[18]

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

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

B. TMDL Stream Flow and Rainfall Monitoring

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

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

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

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

IX. STORM WATER MONITORING REQUIREMENTS

The Permittee shall conduct storm water monitoring as described below unless the Permittee has been exempt from these requirements as described in Section VI.C.1.m of this Order.

[22] 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.

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

A. Sample Locations

1. Samples shall be collected from all locations where storm water is discharged. Samples must represent the quality and quantity of storm water discharged from the facility. If the facility discharges storm water at multiple locations, the discharger may sample a reduced number of locations if it is established and documented in the monitoring program that storm water discharges from different locations are identical.

B. Sampling Procedure

1. Sampling shall consist of grab samples from a storm event that produces significant storm water discharge that is preceded by at least three working days of dry weather. The grab sample should be taken during the first 30 minutes of the discharge. If collection of the grab sample during the first 30 minutes is impracticable, the grab sample may be taken as soon as practicable thereafter, and the Permittee shall explain in the annual monitoring report why the grab sample could not be collected in the first 30 minutes. The Permittee may select alternative monitoring procedures (e.g. composite sampling) provided the Permittee has submitted the proposed procedures and justification to the Regional Water Board prior to use. Unless otherwise instructed by the Regional Water Board, the Permittee may use the alternative monitoring procedures submitted.

2. During the wet season (October through April) the Permittee shall collect and analyze samples of storm water discharge from at least two storm events during each wet season which produce significant storm water discharge.

3. The Permittee shall establish sampling stations where representative samples of storm water discharges can be obtained. For each storm water outfall, the following shall be performed:

    a. Estimate or calculate the volume of storm water discharged from each outfall

    b. Obtain representative samples from each outfall and analyzed for pH, total suspended solids (TSS), specific conductance, total organic carbon (TOC), all heavy metals with effluent limitations within this Order, and any other pollutants stored at the facility.

    c. If pollutants are not detected in significant quantities after two consecutive sampling events, the facility may eliminate that pollutant from future sampling events.

X. OTHER MONITORING REQUIREMENTS

A. Calleguas Creek TMDL Monitoring Requirements

1. The TMDL monitoring program is discussed in section VI.C.2. of the Order.

B. Special Study

1. CEC Monitoring in the Effluent

In recent years, the Los Angeles Regional Water Board has incorporated monitoring of a select group of man-made chemicals, particularly pesticides, pharmaceuticals and personal care products, known collectively as CECs, into permits issued to publicly-owned treatment works (POTWs) to better understand the propensity,

persistence and effects of CECs in our environment. Recently adopted permits in this region contain requirements for CEC effluent monitoring and submittal of a work plan identifying the CECs to be monitored in the effluent, sample type, sampling frequency and sampling methodology. Based on feedback we have received from Permittees and our review of the results of a recent CEC-related study by the Southern California Coastal Water Research Project (SCCWRP) and the State Water Board, we have modified our CEC monitoring program to respond to feedback while proceeding to fill identified data gaps without overly burdening any one permittee.

The Permittee shall conduct a special study to investigate the CECs in the effluent discharged at Discharge Serial No. 001 as listed in the Table below. The sample shall be collected at a point after the chlorine contact tank where a representative sample of the final effluent can be obtained. CEC monitoring shall be conducted regardless of the presence of discharge to Calleguas Creek because the effect CECs may have on the groundwater is also a concern.. These constituents shall be monitored at least once during the permit cycle. The Regional Water Board has determined that one sampling event is appropriate for the Camrosa WRF. Monitoring results shall be reported as part of the annual report. Analysis under this section is for monitoring purposes only. Analytical results obtained for this study will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

Table E-6. CEC Monitoring Requirements

Parameter	Unit	Reporting Limit	Sample Type	Analytical Method	Minimum Sampling Frequency
17α-Ethinyl Estradiol	ng/L	0.5	24-hr composite	EDC Steroid	One Time
17β-Estradiol	ng/L	0.5	24-hr composite	EDC Steroid	One Time
Estrone	ng/L	0.5	24-hr composite	EDC Steroid	One Time
Bisphenol A	ng/L	10	24-hr composite	EDC Steroid	One Time
Nonylphenol & Nonylphenol polyethoxylates	ng/L	100	24-hr composite	EDC Steroid	One Time
Octylphenol & octylphenol polyethoxylates	ng/L	100	24-hr composite	EDC Steroid	One Time
Polybrominated diphenyl ethers (PBDE 28, 47, 99, 100, 153, 154, 183, 209)	ng/L	100 for PBDE 209 and 5 for all others	grab	PBDEs	One Time
Amoxicillin	ng/L	10	24-hr composite	PPCPs	One Time
Azithromycin	ng/L	10	24-hr composite	PPCPs	One Time
Carbamazepine	ng/L	10	24-hr composite	PPCPs	One Time
Caffeine	ng/L	10	24-hr composite	PPCPs	One Time
N,N-Diethyl-m-toluamide (DEET)	ng/L	10	24-hr composite	PPCPs	One Time
Dilantin	ng/L	10	24-hr composite	PPCPs	One Time

Parameter	Unit	Reporting Limit	Sample Type	Analytical Method	Minimum Sampling Frequency
Gemfibrozil	ng/L	10	24-hr composite	PPCPs	One Time
Ibuprofen	ng/L	10	24-hr composite	PPCPs	One Time
Iodinated contrast media (iopromide)	ng/L	10	24-hr composite	PPCPs	One Time
Sulfamethoxazole	ng/L	10	24-hr composite	PPCPs	One Time
Trimethoprim	ng/L	10	24-hr composite	PPCPs	One Time
TCEP, TCPP and TDCPP	ng/L	10	24-hr composite	PPCPs	One Time
Triclosan	ng/L	10	24-hr composite	PPCPs	One Time
Bifenthrin	ng/L	5	grab	Pyrethroids	One Time
Permethrin	ng/L	10	grab	Pyrethroids	One Time
Chlorpyrifos	ng/L	10	24-hr composite	Chlorpyrifos	One Time
Galaxolide	ng/L	10	24-hr composite	Galaxolide	One Time
Diclofenac	ng/L	10	24-hr composite	PPCPs	One Time
Perfluorooctane Sulfonate (PFOS)	ng/L	40	24-hr composite	PFOS	One Time
Fipronil	ng/L	2	grab	Fipronil	One Time
Meprobamate	ng/L	10	24-hr composite	PPCPs	One Time

C. Watershed Monitoring

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.

2. The Permittee shall participate in the implementation of the Watershed-wide Monitoring Program developed by stakeholders and initiated in 2008. The Permittee'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 Permittee 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. The first annual report covering the

period from January 1 through December 31, 2015 should be received in the Regional Water Board office by July 1, 2016.

3. In coordination with interested stakeholders in the Calleguas Creek Watershed, the Permittee shall conduct bioassessment program annually in the spring/summer period and include an analysis of the community structure of the in-stream macroinvertebrate assemblages, the community structure of the in-stream algal assemblages (benthic diatoms and soft-bodied algae), chlorophyll a and biomass for in-stream 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 in-stream 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 Permittee. 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 Permittee 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 Permittee must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Water Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well as, related QA/QC procedures. The SOP must also include specific information about each bioassessment program including: assessment program description, its organization and the responsibilities of all its personnel; assessment project description and objectives; qualifications of all personnel; and the type of training each member has received.

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

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

D. Tertiary Filter Treatment Bypasses

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

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

a. Date and time of bypass start and end;
b. Total duration time; and,
c. Estimated total volume bypassed

3. The Permittee shall submit a written report to the Regional Water Board, according to the corresponding quarterly 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 D.1. above, shall be verbally reported to the Regional Water Board as the results become available and submitted as part of the quarterly SMR.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

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

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

3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

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

B. Calleguas Creek TMDL Monitoring and Reporting Requirements

The Calleguas Creek Watershed TMDL Monitoring Plan (CCWTMP) is designed to monitor and evaluate the implementation of this TMDL and refine the understanding of metal and selenium loads. CCWTMP is intended to parallel efforts of the Calleguas Creek Watershed Nutrients TMDL, Toxicity TMDL, and OC Pesticide, PCBs, and Sediment TMDL monitoring programs.

The goals of the CCWTMP include: (1) to determined compliance with copper, mercury, nickel, and selenium numeric targets at receiving water monitoring stations and at POTWs discharges; (2) to determine compliance with waste load allocations for copper, mercury, nickel, and selenium at receiving water monitoring stations and at POTWs discharger; (3) to monitor the effect of implementation action by urban, POTW, and agricultural dischargers on in-stream water quality; and (4) to implement the CCWTMP in a manner consistent with other TMDL implementation plans and regulatory actions within the Calleguas Creek watershed.

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

(See also section VI.C.2.a of the Order for Monitoring and Reporting Requirements.)

C. Self-Monitoring Reports (SMRs)

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

2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Permittee shall submit quarterly, semiannual, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Permittee monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-7. 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
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with quarterly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	June 15 September 15 December 15 March 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	September 15 March 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 15

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

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

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

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

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

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

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

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

6. Multiple Sample Data. When determining compliance with an average monthly effluent limitation (AMEL), average weekly effluent limitation (AWEL), or maximum daily effluent limitation (MDEL) for priority pollutants and more than one sample result is available, the Permittee shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

7. The Permittee shall submit SMRs in accordance with the following requirements:

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

b. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify instances of non-compliance or exceedances of effluent limitations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

D. Discharge Monitoring Reports (DMRs)

1. The Permittee shall submit DMRs electronically via CIWQS.

E. Other Reports

1. The Permittee shall report the results of any special studies, chronic toxicity testing, TRE/TIE, Pollutant Minimization Program (PMP), and Pollution Prevention Plan required by Special Provisions – section VI.C. The Permittee shall report the progress in satisfaction of compliance schedule dates specified in Special Provisions – VI.C.7. The Permittee shall submit reports in compliance with SMR reporting requirements described in subsection X.B above.

2. Annual Summary Report

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

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

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

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

c. The concentration of the pollutant(s);

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

e. The date and time of sample collection.

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

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

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

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

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

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

ATTACHMENT F – Fact Sheet

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ATTACHMENT F – FACT SHEET

As described in section I, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	4A560106003
Discharger/ Permittee	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	Robert Barone, 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	N
Recycling Requirements	Producer/User
Facility Permitted Flow	1.5 million gallons per day (MGD)
Facility Design Flow	1.5 MGD
Watershed	Calleguas Creek Watershed
Receiving Water	Calleguas Creek
Receiving Water Type	Inland surface water

A. The Camrosa Water District (CWD, Discharger, or Permittee) owns and operates a publicly-owned treatment works (POTW) comprised of the Camrosa Water Reclamation Facility (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 Permittee herein.

B. The Facility discharges wastewater to Calleguas Creek, a water of the United States. The Permittee was previously regulated by Order No. R4-2003-0156 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0059501 adopted on December 4, 2003, and expired on November 10, 2008. Concurrent with adoption of this Order, this Regional Water Board adopted Time Schedule Order (TSO) No. R4-2003-0157, which prescribed an interim effluent limit for chloride. The terms and conditions of the current NPDES order have been automatically continued and remain in effect until new WDRs and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. On January 2, 2004, the Permittee filed a petition with the State Water Resources Control Board (State Water board) seeking, in part, review of the chloride limitations in Order No. R4-2003-0156 and TSO R4-2003-0157, and a stay on the interim chloride limitation set in the TSO.

D. On October 4, 2007, the Regional Water Board adopted Resolution No. R4-2007-016, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) for Calleguas Creek Watershed* (*Salts TMDL)*. The *Salts TMDL,* which became effective on December 2, 2008, contains final WLAs for the Camrosa WRF, for TDS, Sulfate, Chloride, and Boron. 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*.

E. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on December 6, 2013. Supplemental information was requested on March 12, 2014, and received on April 28, 2014. The application was deemed complete on May 27, 2014. A site visit was conducted on July 29, 2014, to observe operations and collect additional data to develop permit limitations and conditions.

F. Although the current permit expired in 2003, it was administratively extended due to the pending toxicity policy. The State Water Board was in the process of developing a state-wide policy for chronic toxicity that could impact how the Regional Water Board implements 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)*, in these waste discharge requirements. Although the State Water Board's policy/plan for chronic toxicity is still under development, the Regional Water Board is proceeding with the renewal of the NPDES permits for the Permittees in Calleguas Creek Watershed, based on direction received from the State Water Resources Control Board to reduce the NPDES backlog.

On November 06, 2014, the Regional Water Board adopted Order No. R4-2014-0210 for the Camrosa WRF, which included chronic toxicity requirements using a two-concentration test design, based on USEPA's Alternative Test Procedure (ATP) approval letter dated March 17, 2014. However, on February 11, 2015, USEPA withdrew its ATP approval. On April 9, 2015, the Regional Water Board adopted NPDES permits for the Joint Outfall System San Jose Creek WRP and other POTWs with revised chronic toxicity requirements consistent with the USEPA ATP withdrawal letter. Order R4-2014-0210 is being amended to update the chronic toxicity requirements, consistent with those included in the San Jose Creek WRP permit, and to correct other reporting requirements. All other permit requirements will remain unchanged and in effect.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

1. The Camrosa Water Reclamation Facility is an Eimco System Carrousel® denitIR® extended aeration treatment facility with a dry weather design capacity of 1.5 MGD. 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. The Facility serves an estimated population of 16,000 people and is a mixture of domestic and industrial water.

3. 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.

   Carousels: Upon entering the carousels, 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 carousel or it is returned to the anoxic basin.

   Secondary Clarification: Wastewater leaves the carousels 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 of 2.03 hours of detention time during normal flows and 1.5 hours at sporadic or seasonal peaks.

   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 CSU Channel Islands 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.

B. Discharge Points and Receiving Waters

The Permittee 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 the 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, a water of the United States, and tributary to the Pacific Ocean within Calleguas Creek Watershed. Discharge Serial No. 001 has the approximate coordinates: Latitude 34.181389 North, Longitude 119.028611West. No effluent has been discharged to the Calleguas Creek from this facility since 2005.

The Ventura County Watershed Protection District channelized portions of Calleguas Creek to convey and control floodwater, and to prevent damage to homes located adjacent to the Creek. Calleguas Creek is a water of the United States that conveys floodwater and urban runoff, along with treated waste water. Groundwater recharge occurs incidentally in unlined areas of Calleguas Creek, where the underlying sediments are highly transmissive to water as well as pollutants. Notwithstanding that segments located further downstream of the discharge are concrete-lined, 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.

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

There have been no discharges to Calleguas Creek since 2005 and all of the treated wastewater has been recycled. Effluent water quality monitoring has therefore not been conducted since 2005. However, the CWD has performed monitoring as outlined in the Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) of Order No. 95-059 and its associated amendment. The following table contains representative monitoring data from 2004 through 2013 as reported in the Annual Report for the WDRs/WRRs:

Table F-2. Historic Effluent Limitations and 2013 WDR/WRR Monitoring Data

Parameter	Units	Effluent Limitation (Order No. R4-2003-0156)			Monitoring Data (Order No. 95-059)		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
$BOD_5 20^oC$	mg/L	30	45	--	9.43	--	21.2
Total Suspended Solids (TSS)	mg/L	30	45	--	2.2	--	9.2
Oil and Grease	mg/L	10	--	15	<5	--	<5

Parameter	Units	Effluent Limitation (Order No. R4-2003-0156)			Monitoring Data (Order No. 95-059)		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Settleable Solids	ml/L	0.1	--	0.3	<0.1	--	<0.1
Residual Chlorine[1]	mg/L	--	--	0.1	--	--	--
Total Dissolved Solids	mg/L	850	--	--	876	--	1087
Chloride	mg/L	The State Water Board issued a Stay for the final effluent Chloride limitations of 190 mg/L			228	--	246
Sulfate	mg/L	250	--	--	162	--	184
Boron	mg/L	1.0	--	--	0.54	--	0.71
Fluoride	mg/L	1.2	--	--	0.57	--	0.62
Nitrate-N	mg/L	--	--	9	3.8	--	7.7
Nitrite-N	mg/L	--	--	0.9	.5	--	1.2
Ammonia as N	mg/L	3.0	--	7.2	0.12	--	0.19
Turbidity	NTU	--	--	--	0.99	--	2.8
MBAS	mg/L	0.5	--	--	<0.0053	--	0.0551
CTAS	mg/L	--	--	--	--	--	--
Antimony	µg/L	--	--	--	0.13	--	0.79
Arsenic	µg/L	--	--	--	1.2	--	3
Beryllium	µg/L	--	--	--	<0.043	--	<0.043
Cadmium	µg/L	--	--	--	0.023	--	0.088
Chromium III	µg/L	--	--	--	--	--	--
Chromium VI	µg/L	--	--	--	4.8	--	11.8
Copper	µg/L	19	--	47	4.4	--	9
Lead	µg/L	10	--	30	0.23	--	0.5
Mercury	µg/L	0.051	--	0.12	0.0069	--	0.04
Nickel	µg/L	--	--	--	5.2	--	10
Selenium	µg/L	--	--	--	0.36	--	1.5
Silver	µg/L	--	--	--	0.0086	--	0.024
Thallium	µg/L	--	--	--	0.0083	--	0.016
Zinc	µg/L	--	--	--	61	--	130
Cyanide	µg/L	4.3	--	8.5	0.88	--	3.19
Asbestos	µg/L	--	--	--	--	--	--
2,3,7,8-TCDD (Dioxin)	µg/L	--	--	--	<0.01	--	<0.01
Acrolein	µg/L	--	--	--	<4.1	--	<4.1
Acrylonitrile	µg/L	--	--	--	<1.2	--	<1.2
Benzene	µg/L	--	--	--	<0.04	--	<0.04
Bromoform	µg/L	--	--	--	2.5	--	5.7
Carbon Tetrachloride	µg/L	--	--	--	0.094	--	0.7
Chlorobenzene	µg/L	--	--	--	<0.047	--	<0.047

[1] No samples collected since there was no discharge to Calleguas Creek in 2013.

Parameter	Units	Effluent Limitation (Order No. R4-2003-0156)			Monitoring Data (Order No. 95-059)		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Chlorodibromomethane	µg/L	34	--	77	19.7	--	39.3
Chloroethane	µg/L	--	--	--	<0.14	--	<0.14
2-Chloroethylvinyl Ether	µg/L	--	--	--	<2.2	--	<2.2
Chloroform	µg/L	--	--	--	34.8	--	90
Dichlorobromomethane	µg/L	46	--	100	34.7	--	87
1,1-dichloroethane	µg/L	--	--	--	<0.05	--	<0.05
1,2-Dichloroethane	µg/L	--	--	--	<0.036	--	<0.036
1,1-Dichloroethylene	µg/L	--	--	--	<0.036	--	<0.036
1,2-dichloropropane	µg/L	--	--	--	<0.037	--	<0.037
1,3-dichloroproylene	µg/L	--	--	--	<0.052	--	<0.052
Ethylbenzene	µg/L	--	--	--	<0.045	--	<0.045
Methyl Bromide	µg/L	--	--	--	<0.24	--	<0.24
Methyl Chloride	µg/L	--	--	--	0.28	--	1
Methylene Chloride	µg/L	--	--	--	0.087	--	0.5
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	<0.095	--	<0.095
Tetrachloroethylene	µg/L	--	--	--	<0.099	--	<0.099
Toluene	µg/L	--	--	--	0.22	--	2
1,2-Trans-Dichloroethylene	µg/L	--	--	--	<0.061	--	<0.061
1,1,1-Trichloroethane	µg/L	--	--	--	<0.082	--	<0.082
1,1,2-Trichloroethane	µg/L	--	--	--	<0.035	--	<0.035
Trichloroethylene	µg/L	--	--	--	<0.11	--	<0.11
Vinyl Chloride	µg/L	--	--	--	<0.15	--	<0.15
2-Chlorophenol	µg/L	--	--	--	<1	--	<1
2,4-Dichlorophenol	µg/L	--	--	--	<0.79	--	<0.79
2,4-Dimethylphenol	µg/L	--	--	--	<0.76	--	<0.76
2-Methyl-4,6-Dinitrophenol	µg/L	--	--	--	<0.43	--	<0.43
2,4-Dinitrophenol	µg/L	--	--	--	<0.22	--	<0.22
2-Nitrophenol	µg/L	--	--	--	<1.1	--	<1.1
4-Nitrophenol	µg/L	--	--	--	<1.1	--	<1.1
3-Methyl-4-Chlorophenol	µg/L	--	--	--	<0.86	--	<0.86
Pentachlorophenol	µg/L	--	--	--	<0.91	--	<0.91
Phenol	µg/L	--	--	--	<0.88	--	<0.88
2,4,6-Trichlorophenol	µg/L	--	--	--	<0.9	--	<0.9
Acenaphthene	µg/L	--	--	--	<0.5	--	<0.5
Acenaphthylene	µg/L	--	--	--	<0.39	--	<0.39
Anthracene	µg/L	--	--	--	<0.43	--	<0.43

Parameter	Units	Effluent Limitation (Order No. R4-2003-0156)			Monitoring Data (Order No. 95-059)		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Benzidine	µg/L	--	--	--	<1.8	--	<1.8
Benzo(a)Anthracene	µg/L	--	--	--	<0.43	--	<0.43
Benzo(a)Pyrene	µg/L	--	--	--	<0.4	--	<0.4
Benzo(b)Fluoranthene	µg/L	--	--	--	<0.37	--	<0.37
Benzo(ghi)Perylene	µg/L	--	--	--	<0.4	--	<0.4
Benzo(k)Fluoanthene	µg/L	--	--	--	<0.5	--	<0.5
Bis(2-Chloroethoxy)Methane	µg/L	--	--	--	<0.56	--	<0.56
Bis(2-Chloroethyl) Ether	µg/L	--	--	--	<0.52	--	<0.52
Bis(2-chloroisopropyl) Ether	µg/L	--	--	--	<0.53	--	<0.53
Bis(2-ethylhexyl) Phthalate	µg/L	4	--	--	<0.41	--	<0.41
4-Bromophenyl Phenyl Ether	µg/L	--	--	--	<0.46	--	<0.46
Butylbenzyl Phthalate	µg/L	--	--	--	<0.29	--	<0.29
2-Chloronaphthalene	µg/L	--	--	--	<0.63	--	<0.63
4-Chlorophenyl Phenyl Ether	µg/L	--	--	--	<0.62	--	<0.62
Chrysene	µg/L	--	--	--	<0.51	--	<0.51
Dibenzo(a,h) Athracene	µg/L	--	--	--	<0.37	--	<0.37
1,2-Dichlorobenzene	µg/L	--	--	--	<0.47	--	<0.47
1,3-Dichlorobenzene	µg/L	--	--	--	<0.45	--	<0.45
1,4-Dichlorobenzene	µg/L	--	--	--	<0.47	--	<0.47
3,3'-Dichlorobenzidine	µg/L	--	--	--	<0.43	--	<0.43
Diethyl Phthalate	µg/L	--	--	--	<0.34	--	<0.34
Dimethyl Phthalate	µg/L	--	--	--	<0.31	--	<0.31
Di-n-Butyl Phthalate	µg/L	--	--	--	<0.35	--	<0.35
2,4-Dinitrotoluene	µg/L	--	--	--	<0.49	--	<0.49
2,6-Dinitrotoluene	µg/L	--	--	--	<0.55	--	<0.55
Di-n-Octyl Phthalate	µg/L	--	--	--	<0.31	--	<0.31
1,2-Diphenylhydrazine	µg/L	--	--	--	<0.47	--	<0.47
Fluoranthene	µg/L	--	--	--	<0.44	--	<0.44
Fluorene	µg/L	--	--	--	<0.62	--	<0.62
Hexachlorobenzene	µg/L	--	--	--	<0.47	--	<0.47
Hexachlorobutadiene	µg/L	--	--	--	<0.45	--	<0.45
Hexachlorocyclopenta-diene	µg/L	--	--	--	<0.24	--	<0.24
Hexachlorethane	µg/L	--	--	--	<0.43	--	<0.43

Parameter	Units	Effluent Limitation (Order No. R4-2003-0156)			Monitoring Data (Order No. 95-059)		
		Average Monthly	Ave. Weekly	Max. Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Indeno(1,2,3-cd) Pyrene	µg/L	--	--	--	<0.38	--	<0.38
Isophorone	µg/L	--	--	--	<0.41	--	<0.41
Naphthalene	µg/L	--	--	--	<0.55	--	<0.55
Nitrobenzene	µg/L	--	--	--	<0.47	--	<0.47
N-Nitrosodimethylamine	µg/L	--	--	--	<0.47	--	<0.47
N-Nitrosodo-n-Propylamine	µg/L	--	--	--	<0.53	--	<0.53
N-Nitrosodiphenylamine	µg/L	--	--	--	<0.74	--	<0.74
Phenanthrene	µg/L	--	--	--	<0.5	--	<0.5
Pyrene	µg/L	--	--	--	<0.46	--	<0.46
1,2,4-Trichlorobenzene	µg/L	--	--	--	<0.48	--	<0.48
Aldrin	µg/L	--	--	--	<0.0055	--	<0.0055
Alpha-BHC	µg/L	--	--	--	<0.0046	--	<0.0046
Beta-BHC	µg/L	--	--	--	<0.0061	--	<0.0061
Gamma-BHC (Lindane)	µg/L	0.063	--	0.126	<0.0029	--	<0.0029
Delta-BHC	µg/L	--	--	--	<0.0041	--	<0.0041
Chlordane	µg/L	--	--	--	<0.16	--	<0.16
4,4'-DDT	µg/L	0.00059	--	0.00118	<0.0058	--	<0.0058
4,4'-DDE	µg/L	0.00059	--	0.00118	<0.0053	--	<0.0053
4,4'-DDD	µg/L	--	--	--	<0.0069	--	<0.0069
Dieldrin	µg/L	--	--	--	<0.005	--	<0.005
Alpha-Endosulfan	µg/L	--	--	--	<0.0052	--	<0.0052
Beta-Endosulfan	µg/L	--	--	--	<0.0052	--	<0.0052
Endosulfan Sulfate	µg/L	--	--	--	<0.0061	--	<0.0061
Endrin	µg/L	--	--	--	<0.015	--	<0.015
Endrin Aldehyde	µg/L	--	--	--	<0.0035	--	<0.0035
Heptachlor	µg/L	--	--	--	<0.0049	--	<0.0049
Heptachlor Epoxide	µg/L	--	--	--	<0.0052	--	<0.0052
PCB 1016	µg/L	--	--	--	<0.1	--	<0.1
PCB 1221	µg/L	--	--	--	<0.084	--	<0.084
PCB 1232	µg/L	--	--	--	<0.19	--	<0.19
PCB 1242	µg/L	--	--	--	<0.11	--	<0.11
PCB 1248	µg/L	--	--	--	<0.64	--	<0.64
PCB 1254	µg/L	--	--	--	<0.13	--	<0.13
PCB 1260	µg/L	--	--	--	<0.049	--	<0.049
Toxaphene	µg/L	--	--	--	<0.18	--	<0.18

D. Compliance Summary

During the ten years Order No. R4-2003-0156 was active, the Permittee only discharged to Calleguas Creek during January and February of 2005. A number of violations occurred during this time period including twenty pH violations, ten turbidity violations, one toxicity violation, ten late reports, and seven deficient reports.

The pH violations ranged from 8.7 to 9.4 and the Turbidity violations ranged from 2.2 to 6.0 NTU. The cause of the violations was attributed to storm water infiltration. Repairs were made to the infrastructure to limit infiltration and the discharge was ceased as quickly as possible. Enforcement action was taken and a Notice of Violation (NOV) was sent to the Permittee for two of the associated violations.

Although the 1 TUc monthly median trigger was exceeded once during the current permit cycle, discharge was ceased before more testing could be completed. The cause of the toxicity was attributed to the storm water infiltration and the resulting plant upset. In order to resolve the toxicity issue, the Permittee ceased discharge as soon as possible and repaired points of infiltration.

The late reports ranged from 2 to greater than 73 days late and an NOV was sent to the Permittee. The deficient reports were flagged because they lacked a perjury statement.

TSO No. R4-2003-0157 was adopted concurrently with the NPDES permit, R4-2003-0156. This TSO required the Permittee to:

- Achieve compliance with the interim chloride limitation immediately.
- Develop a work plan that identifies implementation tasks that would lead to attainment of the chloride water quality objective in the Calleguas Creek Watershed.
- Achieve full compliance with the limitation in NPDES Order No. R4-2003-0156 for chloride by November 10, 2008.

The Permittee has worked with a group of agencies within the Calleguas Creek Watershed to develop the *Calleguas Creek Watershed Salts TMDL Work Plan*, which was designed to address chloride on a watershed-wide basis. As a result of this work plan, the permittee has installed and is currently operating a reverse osmosis system to treat the groundwater for potable use. Although the overall effect of this system to the effluent quality has yet to be determined, the Permittee has made substantial progress in reaching compliance with the chloride and TDS final effluent limitations. Since the reverse osmosis system only began operation in February of 2014, additional time is needed to assess the impact it will have on the final effluent quality and to address other options to reduce the salts concentrations in the effluent.

E. Planned Changes

The CWD is reevaluating the treatment process train at the Facility in order to increase the rated capacity from 1.5 to 2.25 MGD. An engineering study was conducted in 2008 to determine if the Facility could support the increased capacity, however the results of the study indicated that additional information was required to support the rerating. . As a result, CWD has petitioned the State Water Resources Control Board, Division of Drinking Water

(DDW), to rerate the chlorine contact tank with a shorter contact time to support the increased capacity rating. Upon approval of the decreased chlorine contact time and implementation of recommendations from DDW, CWD may supply an updated Engineering Report in support of the increased capacity rating to the Regional Water Board and request an amendment to the active NPDES Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

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

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

1. **Water Quality Control Plan.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 4, 1994 that designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential MUN-designated water bodies. On August 22, 2000, the City of Los Angeles, City of Burbank, City of Simi Valley, and the County Sanitation Districts of Los Angeles County challenged USEPA's water quality standards action in the U.S. District Court. On December 18, 2001, the court issued an order remanding the matter to USEPA to take further action on the 1994 Basin Plan consistent with the court's decision. On February 15, 2002, USEPA revised its decision and approved the 1994 Basin Plan in whole. In its February 15, 2002 letter, USEPA stated:

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

standard subject to EPA review under section 303(c)(3) of the Clean Water Act ("CWA"). 33 U.S.C. § 1313(c)(3).

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

Beneficial uses applicable to Calleguas Creek are as follows:

Table F-4a. Basin Plan Beneficial Uses – Receiving 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[2])
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[2]
180701030102 (formerly Calwater Hydro Unit 403.11)	Calleguas Creek Reach 1 (formerly Mugu Lagoon)	Existing: 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, and/or early development (SPWN), shellfish harvesting (SHELL), and WET Potential: REC-1

Beneficial uses of the receiving ground waters are as follows:

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

Department of Water Resources (DWR) Basin	Receiving Water Name	Beneficial Use(s)				
		MUN	IND	PROC	AGR	AQUA
4-6	**Pleasant Valley**					
	Confined Aquifer	existing	existing	existing	existing	
	Unconfined Aquifer	potential	existing	existing	existing	
4-4.02	**Oxnard**					
	Confined Aquifer	existing	existing	existing	existing	
	Unconfined Aquifer	existing	potential		existing	
	Oxnard Forebay	existing	existing	existing	existing	

[2] 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.

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

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

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

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

   WQBELs have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR § 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

6. **Antidegradation Policies.** Federal regulation 40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal

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

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

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

9. **Water Rights.** Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Permittee must file a petition with the State Water Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under CWC section 1211.

10. **Domestic Water Quality.** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels developed to protect human health and ensure that water is safe for domestic use.

11. **Water Recycling -** In accordance with statewide policies concerning water reclamation[3], this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The Permittee shall investigate the feasibility of recycling, conservation, and/or alternative disposal methods of wastewater (such as groundwater injection), and/or use of storm water and dry-weather urban runoff.

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

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

requirements to implement federal and state requirements. This MRP is provided in Attachment E.

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

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

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

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

Calleguas Creek Estuary is in the California 2008-2010 Integrated Report and the following are the identified pollutants impacting the receiving water 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, 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 (tissue), chlordane (tissue), dissolved copper, DDT (tissue & sediment), dieldrin, endosulfan (tissue), fecal coliform, nitrogen, PCBs (tissue), sediment toxicity, sedimentation/siltation, toxaphene (tissue and sediment), and trash.

E. Other Plans, Polices and Regulations

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

   Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or

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

2. **Title 22 of the California Code of Regulations (CCR Title 22).** The 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. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

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

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

   General NPDES permit No. CAS000001 is not applicable to the Camrosa WRF because the facility captures and treats storm water that falls on the premises.

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

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

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

6. **Watershed Management -** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region following the USEPA guidance in *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective of the WMA is to provide a more comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. The WMA integrates activities across the Regional Water Board's diverse programs, particularly permitting, planning, and other surface water-oriented programs that have tended to operate somewhat independently of each other.

   The Regional Water Board has prepared and periodically updates its Watershed Management Initiative Chapter, the latest is updated December 2007. This document contains a summary of the region's approach to watershed management. It addresses each watershed and the associated water quality problems and issues. It describes the background and history of each watershed, current and future activities, and addresses TMDL development. The information can be accessed on our website: http://www.waterboards.ca.gov/losangeles.

7. **Relevant TMDLs –** Section 303(d) of the CWA requires states to identify water bodies that do not meet water quality standards and then to establish TMDLs for each 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 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.

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 to be used based upon MDEL, and updates the WLAs to be consistent with the current practice of recognizing that the flow is variable. The mass based WLAs for ammonia are corrected to be based on the maximum daily effluent limit, MDEL 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 will 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.

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.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

The variety of potential pollutants found in 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 pollutant of concern for protection and evaluation of narrative Basin Plan Objectives.

A. Discharge Prohibitions

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

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Permittee to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary treatment" --that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology- based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of $BOD_5$20°C, TSS, and pH.

2. **Applicable Technology-Based Effluent Limitations (TBELs)**

This Facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of $BOD_5$20°C, TSS, and pH. 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 off of 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 WRP is able to 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 1.5 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	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5$20°C	mg/L	20	30	45		
	lbs/day[4]	250	375	560		
TSS	mg/L	15	40	45		
	lbs/day[4]	185	500	560		
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--		

C. Water Quality-Based Effluent Limitations (WQBELs)

1. **Scope and Authority**

CWA section 301(b) and 40 CFR § 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as technology equivalence requirements, that are necessary to achieve water quality standards. The Regional Water Board has considered the factors listed in CWC

[4] The mass emission rates are based on the plant design flow rate of 1.5 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will increase to 2.25 MGD and the mass-based effluent limitation will be modified upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed starting from section IV.C.2.

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

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

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

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

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

i. **$BOD_5$20°C and TSS**

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

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

- The 30-day average shall not exceed 30 mg/L, and
- The 7-day average shall not exceed 45 mg/L.

Camrosa Water Reclamation Facility provides tertiary treatment. As such, the BOD and TSS limits in the permit are more stringent than secondary treatment requirements and are based on Best Professional Judgment (BPJ). The Facility

achieves solids removals that are better than secondary-treated wastewater by filtering the effluent.

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

ii. **pH**

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

iii. **Settleable solids**

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

It is impracticable to use a 7-day average limitation, because short-term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit (Order R4-2003-0156) and the Camrosa WRP has been able to meet both limits.

iv. **Oil and grease**

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

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation, because spikes that occur under a 7-day average scheme could cause a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. Both limits were included in the previous permit (Order No. R4-2003-0156) and the Facility has been able to meet both limits.

v. **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 3-9) narrative, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses."

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

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

During wet weather, the limits for TDS, sulfate, and boron are based on the water quality objectives found in Basin Plan Table 3-8 (page 3-12) for the Calleguas Creek watershed (above Potrero Road) which are: TDS = 850 mg/L, Sulfate = 250 mg/L, and Boron = 1.0 mg/L.

During dry weather, the limits for TDS, sulfate, and boron are based on the WLAs contained in the *Calleguas Creek Salts TMDL,* Resolution No. R4-2007-016, *Amendment to the Water Quality Control Plant – Los Angeles Region to Incorporate the Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) in the Calleguas Creek Watershed,* adopted by the Regional Water Board on October 4, 2007. 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.

Water conservation efforts and a change in potable water supply have increased salt concentrations in the Camrosa WRF. The *Salts TMDL* does not contain interim WLAs for Camrosa WRF for TDS, chloride, and sulfate, and therefore no relief is established during the TMDL-established compliance schedule period. Interim effluent limitations may be established in a separate Time Schedule Order.

i. **Chloride**

The WQO for chloride in the Basin Plan Table 3-8 (page 3-12), for Calleguas Creek Watershed (above Potrero Road) is 150 mg/L. Due to several actions of the Regional Water Board and State Water Board, this water quality objective has not been applied as a numeric water quality effluent limitation to the wastewater discharge from the Camrosa WRP.

On January 27, 1997, the Regional Water Board adopted Resolution No. 97-02, Amendment to the Basin Plan to incorporate a Policy for Addressing Levels of Chloride in Discharges of Wastewaters. It was approved by the State Water Board in State Water Board Resolution 97-94 and approved by the Office of Administrative Law (OAL) on January 8, 1998. Resolution No. 97-02 served to revise the chloride water quality objective in Calleguas Creek and other surface waters.

On March 22, 2002, USEPA Region 9 established the Calleguas Creek Total Maximum Daily Load for chloride which used the 150 mg/L objective in the Basin Plan to establish wet and dry weather waste load allocations for the Camrosa WRF.

On August 14, 2002, the City of Simi Valley (Simi Valley WQCF), Thousand Oaks (Hill Canyon WWTP), Camarillo Sanitary District Camarillo WRP), Camrosa Water District (Camrosa WRF), Ventura County Water Works District No. 1 (Moorpark facility) and the Regional Water Board entered into a “Stipulation for Order Issuing Stay, with Conditions”, which stayed the final effluent limitations in Order 2000-09 (NPDES No. CA0059501). The State Water Board adopted WQO 2002-0017, which approved the August 14, 2002 stipulation.

On December 04, 2003, the NPDES permit for Camrosa WRF (R4-2003-0156) was renewed, thereby rescinding previous orders, except for enforcement purposes. The Permittee petitioned the revised NPDES Order to the State Water Board, requested an extension of the chloride stay, and asked that the petition be held in abeyance.

On July 06, 2004, the Camrosa WRF entered into a "Stipulation for Further Order Issuing Stay," which stayed the chloride final effluent limitation in WQO 2002-0017. The State Water Board adopted WQO 2004-0011, which approved the July 06, 2004 stipulation and held the petition in abeyance for three years (until July 06, 2007). The State Water Board has continuously granted extensions of the abeyance and as a result, the petition has not been dismissed

without prejudice. The stay will become inoperative upon the effective date of this NPDES Order No. R4-2014-0210.

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 Plant – 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 established interim and final WLAs for chloride. During wet weather, the chloride limit will be based on the water quality objective found in Basin Plan Table 3-8 (page 3-12) for the Calleguas Creek watershed (above Potrero Road) which is: Chloride = 150 mg/L. During dry weather, the limit for chloride will be based on the WLAs contained in the *Salts TMDL*.

This Order establishes final effluent limitations for chloride based on the Salts TMDL WLAs. Water conservation efforts and a change in potable water supply have increased salt concentrations in the Camarillo area. So even though the *Salts TMDL* does not contain interim WLAs for chloride, interim effluent limitations may be established in a separate Time Schedule Order.

viii. **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, by reference, to protect the surface water MUN beneficial use. Given the nature of the Facility which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the pollutants discharged, the discharge has reasonable potential to exceed both the numeric MBAS WQO and the narrative WQO for the prohibition of floating material such as foams and scums. The discharge has tier 3 reasonable potential (RP), therefore an effluent limitation is required.

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

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

(a) **Algae**

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

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

(b) **Concentration-based limit**

Total inorganic nitrogen (NO_2–N + NO_3–N) effluent limitation of 10 mg/L is based on Basin Plan Table 3-8 (page 3-12), for Calleguas Creek Watershed above Potrero Road. However, the Nitrogen Compound TMDL for this Watershed has been in effect since July 16, 2003. Therefore, total inorganic nitrogen effluent limitation of 9 mg/L, which is based on the *Nitrogen Compound TMDL,* will apply in this permit.

(c) **Mass-based limit**

Since the *Nitrogen Compound 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.

x. **Nitrite as Nitrogen and Nitrate as Nitrogen**

The effluent limit for nitrite as nitrogen (NO_2-N) of 0.9 mg/L is based on the Calleguas Creek Watershed Nutrient TMDL Waste Load Allocation which was assigned to the Camrosa WRF. The effluent limit for nitrate as nitrogen (NO_3-N) of 9 mg/L is based on the Calleguas Creek Watershed Nutrient TMDL Waste Load Allocation which was assigned to the Camrosa WRF. Since the TMDL does not specify any mass-based WLA for nitrate as nitrogen or nitrite as nitrogen, mass bases limits are not included for either of the two constituents.

xi. **Total ammonia**

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

On October 24, 2002, the Regional Water Board adopted Resolution No. 02-017, *Amendment to the Water Quality Control Plant for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in Calleguas Creek*. This Resolution was approved by the State Water Resources Control 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 to be used based upon MDEL, and updates the WLAs to be consistent with the current practice of recognizing that the flow is variable. The mass based WLAs for ammonia are corrected to be based on the maximum daily effluent limit, MDEL 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. *Calleguas Creek Nitrogen Compounds TMDL* has ammonia nitrogen waste load allocations of 7.2 mg/L and 3.0 mg/L as maximum daily and average monthly effluent limitation, respectively. These waste load allocations will apply as end-of-pipe effluent limitations to the Camrosa WRF.

xii. **Coliform**

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

(1). Effluent Limitations:

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

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

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

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

immediately following disinfection, as a measure of the effectiveness of the disinfection process.

(2). Receiving Water Limitations

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

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

xiii. **Temperature**

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

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

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

- Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on

> aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

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

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

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

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

xiv. **Turbidity**

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

xv. **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, the accompanying Order will retain the limit for radioactivity.

c. **CTR and SIP**

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

3. **Determining the Need for WQBELs**

The Regional Water Board developed WQBELs for ammonia-nitrogen, nitrite-nitrogen, nitrate-nitrogen, nitrite plus nitrite as nitrogen, TDS, sulfate, chloride, boron, copper, nickel, mercury, chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, PCBs, toxaphene, chlorpyrifos, diazinon, and chronic toxicity based upon TMDLs. The effluent limitations for these pollutants were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The Regional Water Board developed water quality-based effluent limitations for these pollutants pursuant to 40 C.F.R § 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis 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 Permittee. The Permittee has not discharged since 2005 so the monitoring data from this year was used in addition to 2002 interim monitoring data for constituents that were not available in the 2005 data set.

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

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

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

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

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

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, pollutants that demonstrate reasonable potential are copper, mercury, nickel, chlordane, chlorpyrifos, diazinon, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, PCBs, and toxaphene because TMDLs are adopted for these constituents and final WLAs are assigned to the Camrosa WRF.

Carbon tetrachloride, dibromochloromethane, and dichlorobromomethane show reasonable potential because the MEC is greater than the C. The following Table summarizes results from RPA.

Table F-7. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L[5]	RPA Result - Need Limitation?	Reason
1	Antimony	6	0.791	<0.5[6]	No	MEC<C, B<C
2	Arsenic	10	3	2[6]	No	MEC<C, B<C
3	Beryllium	4	<0.043	<0.2[6]	No	MEC<C, B<C
4	Cadmium	5	0.088	<0.2[6]	No	MEC<C, B<C

[5] These are Practical Quantification Limits (PQLs) since no Minimum Detection Limits (MDLs) are available for receiving water data from 2005.

[6] Some metals were not tested during the 2005 discharge event so data from February 26, 2002 interim sampling event were used.

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L[5]	RPA Result - Need Limitation?	Reason
5a	Chromium III	520	3	3	No	MEC<C, B<C
5b	Chromium VI	50	11.8	<10[6]	No	MEC<C, B<C
6	**Copper**	**TMDL**	**9**	**5[6]**	**YES**	**TMDL WLA**
7	Lead	13	0.5	0.5[6]	No	MEC<C, B<C
8	Mercury	0.051	0.04	0.02[6]	No	MEC<C, B<C
9	**Nickel**	**TMDL**	**6.08**	**6[6]**	**YES**	**TMDL WLA**
10	Selenium	5	1.51	2[6]	No	MEC<C, B<C
11	Silver	28	0.024	<0.25	No	MEC<C, B<C
12	Thallium	2	0.016	<0.2	No	MEC<C, B<C
13	Zinc	311	70	90	No	MEC<C, B<C
14	Cyanide	5.2	3.19	ND	No	MEC<C, B<C
15	Asbestos	7x10[6] fibers/L	No sample	No sample	No	N/A
16	2,3,7,8-TCDD (Dioxin)	0.014 pg/L	ND	ND	No	MEC<C, B<C
17	Acrolein	780	<2	<5	No	MEC<C, B<C
18	Acrylonitrile	0.66	<1.2	<2	No	MEC<C, B<C
19	Benzene	1	0.04	<0.5	No	MEC<C, B<C
20	Bromoform	360	5.7	<0.5	No	MEC<C, B<C
21	**Carbon Tetrachloride**	**0.5**	**0.7**	**<0.5**	**YES**	**MEC>C**
22	Chlorobenzene	21,000	<0.047	<0.05	No	MEC<C, B<C
23	**Dibromochloromethane**	**34**	**39.3**	**<0.5**	**YES**	**MEC>C**
24	Chloroethane	No criteria	<0.473	<0.5	No	No criteria
25	2-chloroethyl vinyl ether	No criteria	<1	<1	No	No criteria
26	Chloroform	No criteria	90	<0.5	No	No Criteria
27	**Dichlorobromomethane**	**46**	**87**	**<0.5**	**YES**	**MEC>C**
28	1,1-dichloroethane	No criteria	<0.05	<0.5	No	No criteria
29	1,2-dichloroethane	99	<0.036	<0.5	No	MEC<C, B<C
30	1,1-dichloroethylene	3.2	<0.036	<0.5	No	MEC<C, B<C
31	1,2-dichloropropane	5	<0.037	<0.5	No	MEC<C, B<C
32	1,3-dichloropropylene	0.5	<0.061	<5	No	MEC<C, B<C
33	Ethylbenzene	29,000	<0.045	<0.5	No	MEC<C, B<C
34	Methyl bromide	4,000	<0.24	<1	No	MEC<C, B<C
35	Methyl chloride	No criteria	1	<0.5	No	No criteria
36	Methylene chloride	1,600	0.5	<0.5	No	MEC<C, B<C
37	1,1,2,2-tetrachloroethane	1	<0.095	<0.5	No	MEC<C, B<C
38	Tetrachloroethylene	5	<0.099	<0.5	No	MEC<C, B<C
39	Toluene	150	<0.045	<0.5	No	MEC<C, B<C
40	Trans 1,2-Dichloroethylene	10	<0.061	<0.5	No	MEC<C, B<C
41	1,1,1-Trichloroethane	200	<0.082	<0.5	No	MEC<C, B<C
42	1,1,2-Trichloroethane	5	<0.035	<0.5	No	MEC<C, B<C
43	Trichloroethylene	5	<0.11	<0.5	No	MEC<C, B<C
44	Vinyl Chloride	525	<0.15	<0.5	No	MEC<C, B<C
45	2-chlorophenol	400	<1	<10	No	MEC<C, B<C
46	2,4-dichlorophenol	790	<0.79	<10	No	MEC<C, B<C
47	2,4-dimethylphenol	2,300	<0.76	<10	No	MEC<C, B<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L[5]	RPA Result - Need Limitation?	Reason
48	4,6-dinitro-o-resol(aka 2-methyl-4,6-Dinitrophenol)	765	<0.43	<50	No	MEC<C, B<C
49	2,4-dinitrophenol	14,000	<0.22	<50	No	MEC<C, B<C
50	2-nitrophenol	No criteria	<1.1	<10	No	No criteria
51	4-nitrophenol	No criteria	<1.1	<50	No	No criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	No criteria	<0.86	<20	No	No criteria
53	Pentachlorophenol	8.2	<0.91	<50	No	MEC<C, B<C
54	Phenol	4,600,000	<0.88	<10	No	MEC<C, B<C
55	2,4,6-trichlorophenol	6.5	<0.9	<10	No	MEC<C, B<C
56	Acenaphthene	2,700	<0.5	<10	No	MEC<C, B<C
57	Acenaphthylene	No criteria	<0.39	<10	No	No criteria
58	Anthracene	110,000	<0.43	<10	No	MEC<C, B<C
59	Benzidine	0.00054	<1.8	<50	No	MEC<C, B<C
60	Benzo(a)Anthracene	0.049	<0.43	<10	No	MEC<C, B<C
61	Benzo(a)Pyrene	0.049	<0.4	<10	No	MEC<C, B<C
62	Benzo(b)Fluoranthene	0.049	<0.37	<10	No	MEC<C, B<C
63	Benzo(ghi)Perylene	No criteria	<0.4	<10	No	No criteria
64	Benzo(k)Fluoranthene	0.049	<0.4	<10	No	MEC<C, B<C
65	Bis(2-Chloroethoxy) methane	No criteria	<0.56	<10	No	No criteria
66	Bis(2-Chloroethyl)Ether	1.4	<0.52	<10	No	MEC<C, B<C
67	Bis(2-Chloroisopropyl) Ether	170,000	<0.53	<10	No	MEC<C, B<C
68	Bis(2-Ethylhexyl) Phthalate	4.0	<0.41	<10	No	MEC<C, B<C
69	4-Bromophenyl Phenyl Ether	No criteria	<0.46	<10	No	No criteria
70	Butylbenzyl Phthalate	5,200	<0.29	<10	No	MEC<C, B<C
71	2-Chloronaphthalene	4,300	<0.63	<10	No	MEC<C, B<C
72	4-Chlorophenyl Phenyl Ether	No criteria	<0.62	<10	No	No criteria
73	Chrysene	0.049	<0.51	<10	No	MEC<C, B<C
74	Dibenzo(a,h) Anthracene	0.049	<0.37	<10	No	MEC<C, B<C
75	1,2-Dichlorobenzene	17,000	<0.47	<10	No	MEC<C, B<C
76	1,3-Dichlorobenzene	2,600	<0.45	<10	No	MEC<C, B<C
77	1,4-Dichlorobenzene	2,600	<0.47	<10	No	MEC<C, B<C
78	3-3'-Dichlorobenzidine	0.077	<0.43	<20	No	MEC<C, B<C
79	Diethyl Phthalate	120,000	<0.34	<10	No	MEC<C, B<C
80	Dimethyl Phthalate	2,900,000	<0.31	<10	No	MEC<C, B<C
81	Di-n-Butyl Phthalate	12,000	<0.35	<10	No	MEC<C, B<C
82	2-4-Dinitrotoluene	9.1	<0.49	<10	No	MEC<C, B<C
83	2-6-Dinitrotoluene	No criteria	<0.55	<10	No	No criteria
84	Di-n-Octyl Phthalate	No criteria	<0.31	<10	No	No criteria
85	1,2-Diphenylhydrazine	0.54	<0.47	<50	No	MEC<C, B<C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc.(B) µg/L[5]	RPA Result - Need Limitation?	Reason
86	Fluoranthene	370	<0.44	<10	No	MEC<C, B<C
87	Fluorene	14,000	<0.62	<10	No	MEC<C, B<C
88	Hexachlorobenzene	0.00077	<0.47	<10	No	MEC<C, B<C
89	Hexachlorobutadiene	50	<0.45	<10	No	MEC<C, B<C
90	Hexachlorocyclopenta-diene	17,000	<0.24	<10	No	MEC<C, B<C
91	Hexachloroethane	8.9	<0.43	<10	No	MEC<C, B<C
92	Indeno(1,2,3-cd)Pyrene	0.049	<0.38	<10	No	MEC<C, B<C
93	Isophorone	600	<0.41	<10	No	MEC<C, B<C
94	Naphthalene	No criteria	<0.55	<10	No	No criteria
95	Nitrobenzene	1,900	<0.47	<10	No	MEC<C, B<C
96	N-Nitrosodimethylamine	8.1	<0.47	<10	No	MEC<C, B<C
97	N-Nitrosodi-n-Propylamine	1.4	<0.53	<20	No	MEC<C, B<C
98	N-Nitrosodiphenylamine	16	<0.74	<10	No	MEC<C, B<C
99	Phenanthrene	No criteria	<0.5	<10	No	No criteria
100	Pyrene	11,000	<0.46	<10	No	MEC<C, B<C
101	1,2,4-Trichlorobenzene	No criteria	<0.48	<10	No	No criteria
102	Aldrin	0.00014	<0.0055	<0.01	No	MEC<C, B<C
103	Alpha-BHC	0.013	<0.0046	<0.01	No	MEC<C, B<C
104	Beta-BHC	0.046	<0.0061	<0.01	No	MEC<C, B<C
105	Gamma-BHC (aka Lindane)	0.063	<0.0029	<0.01	No	MEC<C, B<C
106	delta-BHC	No criteria	<0.0041	<0.01	No	No criteria
107	**Chlordane**	**TMDL**	**<0.05**	**<0.05**	**YES**	**TMDL WLA**
108	**4,4'-DDT**	**TMDL**	**<0.0058**	**<0.01**	**YES**	**TMDL WLA**
109	**4,4'-DDE**	**TMDL**	**<0.0053**	**<0.01**	**YES**	**TMDL WLA**
110	**4,4'-DDD**	**TMDL**	**<0.0069**	**<0.01**	**YES**	**TMDL WLA**
111	**Dieldrin**	**TMDL**	**<0.005**	**<0.01**	**YES**	**TMDL WLA**
112	Alpha-Endosulfan	0.056	<0.0052	<0.05	No	MEC<C, B<C
113	Beta-Endosulfan	0.056	<0.0052	<0.01	No	MEC<C, B<C
114	Endosulfan Sulfate	240	<0.0061	<0.01	No	MEC<C, B<C
115	Endrin	0.036	<0.015	0.01	No	MEC<C, B<C
116	Endrin Aldehyde	0.81	<0.0035	<0.01	No	MEC<C, B<C
117	Heptachlor	0.00021	<0.0049	<0.01	No	MEC<C, B<C
118	Heptachlor Epoxide	0.00011	<0.0052	<0.01	No	MEC<C, B<C
119	**PCB 1016**	**TMDL**	**<0.1**	**<9.8**	**YES**	**TMDL WLA**
120	**PCB 1221**	**TMDL**	**<0.084**	**<9.8**	**YES**	**TMDL WLA**
121	**PCB 1232**	**TMDL**	**<0.19**	**<9.8**	**YES**	**TMDL WLA**
122	**PCB 1242**	**TMDL**	**<0.11**	**<9.8**	**YES**	**TMDL WLA**
123	**PCB 1248**	**TMDL**	**<0.064**	**<9.8**	**YES**	**TMDL WLA**
124	**PCB 1254**	**TMDL**	**<0.13**	**<9.8**	**YES**	**TMDL WLA**
125	**PCB 1260**	**TMDL**	**<0.049**	**<9.8**	**YES**	**TMDL WLA**
126	**Toxaphene**	**TMDL**	**<0.18**	**<94**	**YES**	**TMDL WLA**
	Chlorpyrifos	**TMDL**	**--**	**--**	**YES**	**TMDL WLA**
	Diazinon	**TMDL**	**--**	**--**	**YES**	**TMDL WLA**

4. **WQBEL Calculations**

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

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

b. **TMDL WLA-based limitations**

i. **Calleguas Creek Watershed Metals TMDL**

- **Copper**:
  - Concentration-based final WLAs were established for the Camrosa WRF in the *Metals TMDL*. WLA-based limits were calculated using the freshwater CTR criteria, consistent with the *Final Draft Metals and Selenium TMDL Technical Report (Technical Report)*, dated March 2006. This final effluent limitation will apply on the effective date of this Order because the CTR/SIP compliance schedule authority for CTR criteria has expired. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations, so a TSO for copper is not needed.
  - A copper mass-based final WLA was not established for the Camrosa WRF in the *Metals TMDL* because the Permittee does not contribute loading during dry weather. Concentration-based WLAs apply during wet weather when discharges occur. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations, so a TSO for copper is not needed.
- **Nickel:**
  - Concentration-based final WLAs were established for the Camrosa WRF in the *Metals TMDL*. WLA-based limits were calculated using the freshwater CTR criteria, consistent with the *Final Draft Metals and Selenium TMDL Technical Report (Technical Report)*, dated March 2006. This final effluent limitation applies on the effective date of this Order because the CTR/SIP compliance schedule authority for CTR criteria has expired. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations, so a TSO for nickel is not needed.
  - A nickel mass-based final WLA was not established for the Camrosa WRF in the *Metals TMDL* because the Permittee does not contribute loading during dry weather. Concentration-based WLAs apply during wet weather when discharges occur. Effluent data demonstrates that the Facility's discharge is currently able to

comply with the final WLA-based limitations, so a TSO for nickel is not needed.

- **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 the final WLAs. These final effluent limitations apply on the effective date of this Order because the CTR/SIP compliance schedule authority for CTR criteria has expired. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations, so a TSO for these pollutants is not needed.

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." The final effluent limitation will apply on the effective date of this Order, since additional time for permit compliance is not authorized by the TMDL.

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. The final effluent limitation will apply on the effective date of this Order, since the compliance schedule authority under the *Nutrient TMDL* has expired. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations.

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

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

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

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

d. **Impracticability Analysis**

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

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

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

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

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

- block, prevent and alter hormonal binding to hormone receptors or influencing cell signaling pathways.
- alter production and breakdown of natural hormones.
- modify the making and function of hormone receptors.

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

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

Table F-8. Summary of WQBELs for Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.
Ammonia Nitrogen[7]	mg/L	3.0	--	7.2		
	lbs/day	--	--	6.5 x Q[8]		
[Nitrate + Nitrite] (as N)	mg/L	9[9]	--	--		
Nitrate (as N)	mg/L	9[9]	--	--		
Nitrite (as N)	mg/L	0.9[9]	--	--		

[7] This limitation is derived from the final WLA for ammonia nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL*, established by the Regional Water Board on October 24, 2002. Final WLAs became operative on July 16, 2007. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations.

[8] Q represents the POTW effluent flow at the time of water quality measurement is collected (not to exceed 1.5 MGD) and conversion factor to lb/day based on the units of measurement for the effluent flow.

[9] This limitation is derived from the final WLA for nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL,* established by the Regional Water Board on October 24, 2002. Final WLAs became operative on July 16, 2007. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.
Copper	µg/L	27[10]	--	27.4[10]		
	lbs/day[11]	--	--	--		
Nickel	µg/L	149[10]	--	858[10]		
	lbs/day[11]	--	--	--		
Mercury[12]	lbs/day[11]	--	--	--		
Chlorodibromomethane	µg/L	33	--	68		
	lbs/day	0.41	--	0.85		
Dichlorobromomethane	µg/L	43	--	92		
	lbs/day	0.54	--	1.15		
Carbon Tetrachloride	µg/L	0.49	--	0.98		
	lbs/day	0.006	--	0.012		
Chlordane	µg/L	0.00059[13]	--	0.0012[13]		
4,4-DDD	µg/L	0.00084[13]	--	0.0017[13]		
4,4-DDE	µg/L	0.00059[13]	--	0.0012[13]		
4,4-DDT	µg/L	0.00059[13]	--	0.0012[13]		
Dieldrin	µg/L	0.00014[13]	--	0.00028[13]		
PCBs	µg/L	0.00017[13]	--	0.00034[13]		
Toxaphene	µg/L	0.00016[13]	--	0.00033[13]		
Chlorpyrifos	µg/L	0.0133 [14]	--	0.024[14]		
Diazinon	µg/L	0.1[14]	--	0.1[14]		

[10] This limitation is derived from the final WLA, as set forth in the *Calleguas Creek Watershed Metals TMDL (Metals TMDL)*, established by the Regional Water Board on June 8, 2006. The TMDL became effective on March 26, 2007. The *Metals TMDL* contains concentration-based WLAs that are expressed in total recoverable form. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations.

[11] A mass-based final WLA was not established for the Camrosa WRF in the *Metals TMDL* because the Permittee does not contribute loading during dry weather. Concentration-based WLAs apply during wet weather when discharges occur.

[12] No interim or final WLAs were developed for this facility for mercury in the *Total Maximum Daily Load for Metals and Selenium in the Calleguas Creek, its Tributaries and Mugu Lagoon.*

[13] This limitation is derived from the final WLA, as set forth in the *Calleguas Creek Watershed Organochlorine Pesticide, Polychlorinated Biphenyls (PCB), and Siltation TMDL,* established by the Regional Water Board on July 7, 2005. The limitation is derived from the final WLA as set forth in said TMDL. The TMDL became effective on March 24, 2006. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitation.

[14] This limitation is derived from the final WLA as set forth in the *Calleguas Creek Watershed Toxicity, Chlorpyrifos, and Diazinon TMDL,* established by the Regional Water Board on July 7, 2005. The TMDL became effective on March 24, 2006. Consistent with the TMDL, the final WLA-based limit became operative on March 23, 2008. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that discharge is currently able to comply with the final WLA-based limitation.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.
Chronic Toxicity[15,16]	Pass or Fail, %Effect	Pass[17]	--	Pass or %Effect < 50		

5. **Whole Effluent Toxicity (WET)**

Whole effluent toxicity (WET) testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level.

The 2003 permit contained final effluent limitations for both acute toxicity and chronic toxicity but, the 2014 permit only contains final effluent limitations for chronic toxicity expressed as a monthly median and a daily maximum. Since chronic toxicity is a more stringent requirement than acute toxicity, removal of the numeric acute toxicity effluent limitation from the 2003 permit does not constitute backsliding.

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 Part 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. However, the effluent data demonstrates that there is reasonable potential because the chronic toxicity trigger was exceeded.

In the past, the State Water Board reviewed the circumstances warranting a numeric

[15] The *Calleguas Creek Watershed Toxicity TMDL* includes a 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 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* Implementation Plan, these chronic toxicity WLA-based final effluent limitations will be implemented using the *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013), 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), http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tool-january-2010*.

[16] The Median Monthly Effluent Limitation (MMEL) is reported as “Pass” or “Fail”. Maximum Daily Effluent limitation (MDEL) us reported as “Pass” or “Fail” and “% Effect”. The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail”.

[17] This is a Median Monthly Effluent Limitation.

chronic toxicity effluent limitation for POTWS when there is reasonable potential with respect to SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 (Los Coyotes Order) deferring the issue of numeric chronic toxicity effluent limitations 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. 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. 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 adopted NPDES permits for industrial facilities incorporating TST-based effluent limitations for chronic toxicity and has adopted numeric chronic toxicity effluent limitations for industrial facilities with TMDL WLAs of 1 TUc; 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 and other factual developments, the State Water Board has not adopted a revised policy that addresses chronic toxicity effluent limitations in NPDES permits for inland discharges, as anticipated by the Los Coyotes Order. Because the Los Coyotes Order explicitly "declined to make a determination … regarding the propriety of the final numeric effluent limitations for chronic toxicity…," (Los Coyotes Order, p. 9) and because of the differing facts before the Regional Water Board in 2014 as compared to the facts that were the basis for the Los Coyotes Order in 2003, the Regional Water Board finds that numeric effluent limitations for chronic toxicity are necessary, feasible, and appropriate because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective. The City of Thousand Oaks, Hill Canyon WWTP 2014 permit contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirements contained in the 2014 Order shall be determined in accordance to section VII.J of the WDR.

On July 7, 2014, the Chief Deputy of the Water Quality Division announced that the State Water Board would be releasing a revised version of the Chronic Toxicity Plan for public comment within a few weeks. Regional Water Board staff awaits its release. Because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective, the Hill Canyon WWTP 2014 permit contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirement contained in the 2014 Order shall be determined in accordance to sections VII.J of the WDR. 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 a median monthly effluent limitation and a maximum daily effluent limitation that utilizes USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach. The chronic toxicity effluent limitations are expressed as "Pass" for the median monthly summary result and "Pass" or "<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 122.45(d) require that all permit limitations be expressed, unless impracticable, as an average weekly effluent limit (AWEL) and an Average Monthly Effluent Limitation (AMEL) for POTWs. Following Section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL is not appropriate for WET. In lieu of an AWEL for POTWs, EPA 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 WQS. Moreover, an average weekly requirement comprising up to seven daily samples could average out daily peak toxic concentrations for WET and therefore, the discharge's potential for causing acute and chronic effects would be missed. It is impracticable to use an 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, EPA Regions 9 and 10 continue to recommend that the AMEL for chronic WET should be expressed as a median monthly effluent 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 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.[18] 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, EPA 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, IC25s) 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 ten 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: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by EPA'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 EPA'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

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

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 122.44(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.

The Permittee may submit a request for a time schedule order upon an exceedance of the effluent limitations for chronic toxicity in this Order. In determining whether a time schedule order is appropriate, and the conditions and duration of such an order, the Regional Water Board or Executive Officer will consider the following factors among other relevant considerations: the facility's history of compliance with effluent limitations for chronic toxicity, including the magnitude and duration of any exceedances; history of and information acquired from past TIEs or TREs conducted for the facility; and the efforts of the Permittee to achieve compliance with effluent limitations for chronic toxicity.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for chloride, fluoride, bis(2-ethyhexyl) phthalate, cyanide, lead, mercury, and lindane. The dry weather chloride limitation was revised to match the limitation set in the Salts TMDL. The cumulative effect of all such revised effluent limitations based on the TMDL will assure attainment of the water quality standard, see CWA 303(d)(4)(A). The effluent limitations for the remaining constituents mentioned above were removed because the pollutants did not show reasonable potential to exceed the applicable water quality criteria. In both situations described above, new information provided the reasoning for the revised limitations, which constitutes an exception to the general rule against backsliding. This new information was not available at the time the prior permit was issued and would have justified the application of a less stringent effluent limitation. This removal of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations. Applicable exceptions to the anti-backsliding requirements justifying removal of certain effluent limitations include new information obtained after permit issuance.

2. Antidegradation Policies

40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution No. 68-16*, Statement of Policy with Respect to Maintaining the Quality of the Waters of the State.* Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum,

interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR § 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR § 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

Calleguas Creek is included on the 303(d) list for many pollutants. The Regional Water Board adopted TMDLs to attain water quality standards in the receiving waters for: salts, pesticides, PCBs, toxicity, and metals. The NPDES permit contains concentration-based limits for copper and nickel to protect aquatic life beneficial use from the point of discharge all the way to the sensitive Mugu Lagoon area, downstream of the discharge. The permit also contains concentration-based limitations based on the California Toxics Rule to protect human health and recreational uses in the receiving water. The renewal of the NPDES permit will not lower surface water quality because the conditions in the Order are at least as stringent as the prior Order, with the exceptions described above which are not present in the discharge at concentrations that would exhibit reasonable potential to cause or contribute to an exceedance of a water quality objective. The Camrosa WRF also only discharges to surface waters during wet weather. This Order also requires continued monitoring of these constituents to ensure that effluent concentrations do not increase beyond current levels. This Order does not provide for an increase in the permitted design flow or allow for a reduction in the level of treatment. The effluent limits hold the Discharger to performance levels that will not cause or contribute to water quality impairment or water quality degradation. Further, compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Therefore, discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR § 131.12 and State Water Board Resolution No. 68-16.

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

This Order contains both TBELs and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD, TSS, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS and pH are discussed in section IV.B. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards.

Water quality-based effluent limitations have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR § 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR § 131.21(c)(1). Collectively, this Order's restrictions on individual

pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA.

Table F-9. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
$BOD_5 20^oC$	mg/L	20	30	45			Tertiary Treatment Technology
	lbs/day[19]	250	375	563			
Total Suspended Solids (TSS)	mg/L	15	40	45			Tertiary Treatment Technology
	lbs/day[19]	187	500	563			
pH	standard units	--	--	--	6.5	8.5	Basin Plan
Removal Efficiency for BOD and TSS	%	85	--	--			Basin Plan
Oil and Grease	mg/L	10	--	15			Basin Plan
	lbs/day[19]	125	--	187			
Settleable Solids	ml/L	0.1	--	0.3			Basin Plan
Total Residual Chlorine	mg/L	--	--	0.1			Basin Plan
TDS (dry-weather) [20]	lbs/day[19]	10,633[21]	--	--			TMDL
TDS (wet-weather)[22]	mg/L	850	--	--			Basin Plan
Sulfate (dry-weather)[20]	lbs/day[19]	3,127[21]	--	--			TMDL
Sulfate (wet-weather)[22]	mg/L	250	--	--			Basin Plan

[19] The mass emission rates are based on the plant design flow rate of 1.5 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will increase to 2.25 MGD and the mass-based effluent limitation will be modified upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

[20] Dry weather is defined in the Salts TMDL as the condition when the flows in the receiving water are below the 86th percentile flow, as explained in WDR § VII.O. .

[21] This limitation is derived from the final Waste Load Allocations (WLAs) in the *Calleguas Creek Watershed Salts Total Maximum Daily Load (Salts TMDL)*, established by the Regional Water Board on October 4, 2007. The *Salts TMDL* which became effective on December 2, 2008, following USEPA's approval. Interim effluent limitations may be provided in a separate Time Schedule Order.

Consistent with the *Salts TMDL*, these limits apply only during dry weather (as defined in the *Salts TMDL,* as explained in WDR § VII.O*).*

[22] This wet-weather final effluent limitation shall apply on January 1, 2016, upon the expiration date of TSO No. R4-2011-0126-AXX. Any day that does not qualify as dry-weather is wet-weather. See also section VII.O. of this Order for definition of wet-weather.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
Chloride (dry-weather)[20]	lbs/day[19]	1,876[21]	--	--			TMDL
Chloride(wet-weather)[22]	mg/L	150	--	--			Basin Plan
Boron	mg/L	1.0	--	--			Basin Plan
	lbs/day[19]	12.5					
Ammonia Nitrogen	mg/L	3[23]	--	7.2			TMDL
	lbs/day	--	--	6.5 x Q[24]			
Nitrate + Nitrite (as N)	mg/L	9[25]	--	--			TMDL
	lbs/day	--	--	--			
Nitrate (as N)	mg/L	9[25]	--	--			TMDL
	lbs/day	--	--	--			
Nitrite (as N)	mg/L	0.9[25]	--	--			TMDL
	lbs/day	--	--	--			
MBAS	mg/L	0.5	--	--			Existing
	lbs/day[18]	6.25	--	--			
Copper	µg/L	27[26]	--	27.4[26]			TMDL
	lbs/day[27]	--	--	--			
Nickel	µg/L	149[26]	--	858[26]			TMDL
	lbs/day[27]	--	--	--			
Mercury[28]	µg/L	--	--	--			TMDL

[23] This limitation is derived from the final WLA for ammonia nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL,* established by the Regional Water Board on October 24, 2002. Final WLAs became operative on October 24, 2004.

[24] Q represents the POTW effluent flow at the time the water quality measurement is collected (not to exceed 1.5 MGD) and a conversion factor to lbs/day based on the units of measure for the flow.

[25] This limitation is derived from the final WLA for nitrate nitrogen, nitrite nitrogen, and nitrate plus nitrite nitrogen, as set forth in the *Nitrogen Compounds and Related Effects TMDL,* established by the Regional Water Board on October 24, 2002. Final WLAs became operative on July 16, 2007.

[26] This limitation is derived from the final WLA, as set forth in the *Calleguas Creek Watershed Metals TMDL (Metals TMDL)*, established by the Regional Water Board on June 8, 2006. The TMDL became effective on March 26, 2007. The *Metals TMDL* contains concentration-based WLAs that are expressed in total recoverable form. The final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitations.

[27] A mass-based final WLA was not established for the Camrosa WRF in the *Metals TMDL* because the Permittee does not contribute loading during dry weather. Concentration-based WLAs apply during wet weather when discharges occur.

[28] No interim or final WLAs were developed for this facility for mercury in the *Total Maximum Daily Load for Metals and Selenium in the Calleguas Creek, its Tributaries and Mugu Lagoon*.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
	lbs/day[27]	--	--	--			
Chlorodibromomethane	µg/L	33	--	68			SIP/CTR
	lbs/day	0.41	--	0.85			
Dichlorobromomethane	µg/L	43	--	92			SIP/CTR
	lbs/day	0.54	--	1.15			
Carbon tetrachloride	µg/L	0.49	--	0.98			SIP/CTR
	lbs/day	0.006	--	0.012			
Chlordane	µg/L	0.00059[29]	--	0.0012[29]			TMDL
4,4'-DDD	µg/L	0.00084[29]	--	0.0017[29]			TMDL
4,4'-DDE	µg/L	0.00059[29]	--	0.0012[29]			TMDL
4,4'-DDT	µg/L	0.00059[29]	--	0.0012[29]			TMDL
Dieldrin	µg/L	0.00014[29]	--	0.00028[29]			TMDL
PCBs[30]	µg/L	0.00017[29]	--	0.00034[29]			TMDL
Toxaphene	µg/L	0.00016[29]	--	0.00033[29]			TMDL
Chlorpyrifos	µg/L	0.0133 [31]	--	0.024[30]			TMDL
Diazinon	µg/L	0.1[30]	--	0.1[30]			TMDL

[29] This limitation is derived from the final WLA, as set forth in the *Calleguas Creek Watershed Organochlorine Pesticide, Polychlorinated Biphenyls (PCB), and Siltation TMDL,* established by the Regional Water Board on July 7, 2005. The limitation is derived from the final WLA as set forth in said TMDL. The TMDL became effective on March 24, 2006. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the facility's discharge is currently able to comply with the final WLA-based limitation.

[30] Applies to sum of all congener or isomer or homolog or Aroclor analyses. PCBs shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Arolclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

[31] This limitation is derived from the final WLA as set forth in the *Calleguas Creek Watershed Toxicity, Chlorpyrifos, and Diazinon TMDL,* established by the Regional Water Board on July 7, 2005. The TMDL became effective on March 24, 2006. Consistent with the TMDL, the final WLA-based limit became operative on March 23, 2008. This final effluent limitation applies on the effective date of this Order. Effluent data demonstrates that the Facility's discharge is currently able to comply with the final WLA-based limitation.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
Chronic Toxicity[32, 33]	Pass or Fail, % Effect	Pass[34]	--	Pass or %Effect < 50			TMDL, TST, and USEPA Guidance

E. Interim Effluent Limitations

No interim limits are included in this NPDES Order.

Table F-10. Interim Effluent Limitations for Discharge Point 001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
N/A			--	--		

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications

The Permittee currently recycles approximately 100% of the total treated effluent. Recycled water is used for landscape and crop irrigation. The production, distribution, and reuse of recycled water are presently regulated under Water Reclamation Requirements (WRR) Order No. 95-059, adopted by this Regional Water Board on May 15, 1995.

[32] The *Calleguas Creek Watershed Toxicity TMDL* includes a 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 WLA 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* Implementation Plan, these chronic toxicity WLA-based effluent limitations will 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), http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tool-january-2010 .*

[33] The Median Monthly Effluent Limitation (MMEL) shall be reported as "Pass" or "Fail". The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail" and "% Effect." The MMEL for chronic toxicity shall only apply when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in "Fail."

[34] This is a Median Monthly Effluent Limitation.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

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

B. Groundwater

Limitations in this Order must protect not only surface receiving water beneficial uses, but also, the beneficial uses of underlying groundwater where there is a recharge beneficial use of the surface water. In addition to a discharge to surface water, there is discharge that can impact groundwater. Sections of Calleguas Creek, near the Camrosa WRF discharge points, are designated as 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 should 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 had reasonable potential to exceed the primary MCL for carbon tetrachloride and the California Toxics Rule (CTR) human health criteria for dichlorobromomethane and dibromochloromethane, therefore, a limit is included in the permit for all three pollutants. The effluent limitations are expressed as a monthly average rather than a daily maximum, because it was assumed that the groundwater basins have assimilative capacity for these pollutants. The monthly averaging period is justified because these pollutants are not expected to produce acute effects. Since the discharge has reasonable potential to exceed the MCLs, end-of-pipe final effluent limitations for these pollutants are needed.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

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

B. Special Provisions

1. Reopener Provisions

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

2. Special Studies and Additional Monitoring Requirements

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

The Permittee shall conduct a special study to investigate the CECs in the effluent discharge as listed in Table E-5 of the MRP. These constituents shall be monitored annually for at least two years. The Regional Water Board has determined that two years is an appropriate time period to determine those CECs that are present in POTW effluent. Monitoring results shall be reported as part of the annual report. Analysis under this section is for monitoring purposes only. Analytical results obtained for this study will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

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

system(s). This provision requires the Permittee to report specific time schedules for the plants projects. This provision requires the Permittee to submit report to the Regional Water Board for approval.

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

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

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

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

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

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

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

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

b. **Pretreatment Requirements.** This facility does not currently provide service to any Significant Industrial Users (SIUs) and therefore does not maintain an active pretreatment program. The Permittee shall assess current and future users to determine if SIUs exist that would require the development of a pretreatment program.

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

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (SSO WDR) on May 2, 2006.

The Monitoring and Reporting Requirements for the SSO WDR were amended by Water Quality Order WQ 2008-0002-EXEC on February 20, 2008. The SSO WDR requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the SSO WDR. The SSO WDR requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

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

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

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

7. **Compliance Schedules**

Table F-11. Plant Performance Evaluation

Constituent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	95th Percentile Concentration (mg/L)	99th percentile Concentration (mg/L)
N/A				

Table F-12. Compliance Schedule Milestone Dates

Task No.	Description	Start Date	End Date
N/A			

There is no compliance schedule included in Special Provisions section VI.C.7.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

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

implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

A. Influent Monitoring

Influent monitoring is required:

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

B. Effluent Monitoring

The Permittee is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP Attachment E. This provision requires compliance with the MRP, and is based on 40 CFR parts 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including this Order) issued by the Regional Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board policies. The MRP also contains sampling program specific for the Permittee's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with section 1.3 of the SIP, a periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

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

Table F-13. Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2003 Permit)	Monitoring Frequency (2014 Permit)
Total waste flow	continuous	no change
Total residual chlorine	when discharged	no change
Turbidity	when discharged	no change
Temperature	daily	no change
pH	daily	no change
Settleable solids	weekly	no change
Total suspended solids	weekly	no change
Oil and grease	weekly	quarterly
$BOD_5 20^oC$	weekly	no change
Dissolved oxygen	monthly	no change
Total coliform	daily	no change
Fecal coliform	daily	daily (as necessary)

Parameter	Monitoring Frequency (2003 Permit)	Monitoring Frequency (2014 Permit)
E.coli	daily	daily (as necessary)
Total Dissolved Solids	monthly	no change
Sulfate	monthly	no change
Chloride	monthly	no change
Boron	monthly	quarterly
Fluoride	monthly	quarterly
MBAS	monthly	quarterly
CTAS	monthly	quarterly
Ammonia nitrogen	monthly	no change
Nitrate + nitrite (as nitrogen)	monthly	no change
Nitrate nitrogen	monthly	no change
Nitrite nitrogen	monthly	no change
Organic N	monthly	no change
TKN	monthly	no change
Total Nitrogen	monthly	no change
Orthophosphate-P	monthly	no change
Total Phosphorus	monthly	no change
Total Hardness ($CaCO_3$)	monthly	no change
radioactivity	annually	no change
Chronic toxicity	monthly	no change
Acute toxicity	quarterly	deleted
Chromium VI	semiannually	no change
Copper	monthly	quarterly
Nickel	semiannually	quarterly
Selenium	semiannually	no change
Mercury	quarterly	no change
Zinc	semiannually	no change
Lead	quarterly	semiannually
Cyanide	monthly	quarterly
Bis (2-ethylhexyl) phthalate	quarterly	semiannually
Dibromochloromethane	monthly	no change
Bromodichloromethane	monthly	no change
Chloroform	semiannually	no change
Alpha BHC	semiannually	no change
Beta-BHC	semiannually	no change
Gamma-BHC (Lindane)	monthly	semiannually
Delta-BHC	semiannually	no change
Dieldrin	semiannually	quarterly
PCBs	semiannually	quarterly
Chlordane	semiannually	quarterly
4,4'- DDT	quarterly	no change
4,4'- DDE	quarterly	no change
4,4'- DDD	semiannually	quarterly

Parameter	Monitoring Frequency (2003 Permit)	Monitoring Frequency (2014 Permit)
Toxaphene	semiannually	quarterly
Aldrin	semiannually	no change
Alpha-endosulfan	semiannually	no change
Beta-endosulfan	semiannually	no change
Endosulfan sulfate	semiannually	no change
Endrin	semiannually	no change
Endrin aldehyde	semiannually	no change
heptachlor	semiannually	no change
Heptachlor epoxide	semiannually	no change
Chlorpyrifos	not monitored	quarterly
Diazinon	not monitored	quarterly
Methyl tertiary butyl ether (MTBE)	semiannually	annually
perchlorate	semiannually	annually
1,4-Dioxane	semiannually	annually
1,2,3-Trichloropropane	semiannually	annually
N-Nitrosodimethylamine (NDMA)	semiannually	no change
Remaining USEPA priority pollutant not listed on this Table	semiannually	no change

C. Whole Effluent Toxicity (WET) 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 of time and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach, and is expressed as "Pass" or "Fail" and "Percent Effect" for each individual chronic toxicity 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 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 Water Board and Regional Water 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 IV.C.5 of this Fact Sheet.

D. Receiving Water Monitoring

1. Surface Water

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

2. Groundwater – (Not Applicable)

E. Other Monitoring Requirements

1. Watershed Monitoring and Bioassessment Monitoring

The goals of the Watershed-wide Monitoring Program including the bioassessment monitoring for the 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.

VIII. CONSIDERATION OF NEED TO PREVENT NUISANCE AND CALIFORNIA WATER CODE § 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.

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.

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 III.C.1.

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

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

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. The additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan. Further, the loss of, or impacts to, beneficial uses would have a detrimental economic impact. Economic considerations related to costs of compliance are therefore not sufficient, in the Regional Water Board's determination, to justify failing to prevent nuisance and protect beneficial uses

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

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. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent.

IX. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for 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.

A. Notification of Interested Parties

The Regional Water Board notified the Permittee and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following: (1) on the Public Notice board outside of the district office at 7385 Santa Rosa Road, Camarillo, CA 93012, and (2) at the Camrosa Water Reclamation Facility at 1900 South Lewis Road, Camarillo, CA 93012.

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

B. Written Comments

Interested persons were invited to submit written comments concerning tentative amended WDRs as provided through the notification process. The Board will accept comments only with respect to the proposed changes to the tentative amended requirements marked in underline and strikeout format. Comments where due either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order, or by email submitted to losangeles@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on June 8, 2015.

C. Public Hearing

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

Date:	July 09, 2015
Time:	9:00 a.m.
Location:	Metropolitan Water District of Southern California Board Room 700 North Alameda Street Los Angeles, California

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

D. Reconsideration of Waste Discharge Requirements

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

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street

Sacramento, CA 95812-0100

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

E. Information and Copying

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

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Steven Webb at (213) 576-6793 or Steven.Webb@waterboards.ca.gov.

ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

INFORMATION AND DATA ACQUISITION

A. Operations and performance review

I. NPDES permit requirements
   a. Effluent limitations
   b. Special conditions
   c. Monitoring data and compliance history

II. POTW design criteria
   a. Hydraulic loading capacities
   b. Pollutant loading capacities
   c. Biodegradation kinetics calculations/assumptions

III. Influent and effluent conventional pollutant data
   a. Biochemical oxygen demand (BOD5)
   b. Chemical oxygen demand (COD)
   c. Suspended solids (SS)
   d. Ammonia
   e. Residual chlorine
   f. pH

IV. Process control data
   a. Primary sedimentation - hydraulic loading capacity and BOD and SS removal
   b. Activated sludge - Food-to-microorganism (F/M) ratio, mean cell residence time (MCRT), mixed liquor suspended solids (MLSS), sludge yield, and BOD and COD removal
   c. Secondary clarification - hydraulic and solids loading capacity, sludge volume index and sludge blanket depth

V. Operations information
   a. Operating logs
   b. Standard operating procedures
   c. Operations and maintenance practices

VI. Process side stream characterization data
   a. Sludge processing side streams
   b. Tertiary filter backwash
   c. Cooling water

VII. Combined sewer overflow (CSO) bypass data
   a. Frequency

b. Volume

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

B. POTW influent and effluent characterization data

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

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

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

D. Industrial waste survey (IWS)

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

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

ATTACHMENT H – BIOSOLIDS AND SLUDGE MANAGEMENT

BIOSOLIDS USE AND DISPOSAL REQUIREMENTS

A. All biosolids generated by the Permittee shall be reused or disposed of in compliance with the applicable portions of:

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.

2. 40 CFR part 258: for biosolids disposed of in Municipal Solid Waste landfills.

3. 40 CFR part 257: for all biosolids disposal practices not covered under 40 CFR part 258 or 503.

B. 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.

C. 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.

D. No biosolids shall be allowed to enter wetland or other waters of the United States.

E. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.

F. Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.

G. 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.

H. 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 part 503.20 (b), requesting permission for longer temporary storage.

I. Sewage sludge containing more than 50 mg/kg PCB's shall be disposed of in accordance with 40 CFR part 761.

J. 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.

K. 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:

I. 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;

II. 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; and

III. 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.

L. Monitoring shall be conducted as follows:

1. Biosolids shall be tested for the metals required in part 503.16 (for land application) or part 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 Permittee 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.

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 part 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.

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 § 503.33 (b).

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.

5. The biosolids shall be tested annually or more frequently if necessary to determine hazardousness in accordance with California Law.

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.

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.

M. The Permittee either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements:

8. 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.

9. If the Permittee biosolids do not meet 40 CFR § 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 § 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.

10. 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.

11. 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).

12. 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.

N. 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:

I. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

II. Results of all pollutant monitoring required in the Monitoring Section above.

III. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR parts 503.17 and 503.27.

IV. 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.

V. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).

VI. 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 in N.3, above, and volumes delivered to each.

O. 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:

I. 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 § 503.12(e)(2), management practices in § 503.14 and site restrictions in § 503.32(b)(5) have been met.

ATTACHMENT I – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS[1]

I. Objectives

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

II. Planning and Organization

a. Pollution Prevention Team

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

III. 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:

a. 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

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

b. The location of the storm water collection and conveyance system (including catch basins and retention basins), and any associated points of discharge.

c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks have occurred.

IV. List of Significant Materials

a. 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.

V. Description of Potential Pollutant Sources

a. The SWPPP shall include a narrative description of the potential pollutant sources and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to the facility's industrial activities shall be considered:

i. 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.

ii. 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.

iii. Significant Spills and Leaks

If applicable, describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. The list shall be updated as appropriate during the term of this Order.

iv. Non-Storm Water Discharges

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

All non-storm water discharges shall be described except for those discharges regulated by this Order. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

v. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

VI. Assessment of Potential Pollutant Sources

a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.5 above to determine:

i. Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 7 below.

VII. Storm Water Best Management Practices

a. The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site

assessment phase (Sections A.5 and 6. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

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

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

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

b. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.7.b. below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Consists of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. 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.

iv. Material Handling and Storage

Includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

v. 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 storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. 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.

viii. 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.

ix. 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.

x. Quality Assurance

Includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

c. Structural BMPs

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of potential structural BMPs:

i. Overhead Coverage

Includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

Includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. Secondary Containment Structures

Includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

Includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

VIII. 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. A review of all visual observation records, inspection records, and sampling and analysis results.

b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and signed and certified by a Professional Engineer.

IX. SWPPP General Requirements

a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

d. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this Order.

e. 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 storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.