ATTACHMENT G – TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION, COMPLIANCE, AND REPORTING REQUIREMENTS

G1. OVERVIEW

This Attachment provides the implementation, compliance, and reporting requirements for the identified Permittee to comply with total maximum daily load (TMDL) requirements. The Permittee is identified in the TMDL as responsible for implementing the requirements in the TMDL. This Attachment includes the following:

1. Technical requirements for best management practices, and
2. TMDL implementation, monitoring, reporting, and compliance requirements.

Wasteload allocations, descriptions, responsible entities, and compliance deadlines for the applicable TMDLs are also summarized in Attachment B (Fact Sheet), which is incorporated by reference into this Attachment.

A list of responsible permittees by TMDL is found at the end of this section.

G2. TMDL REPORTING REQUIREMENTS

TMDL reporting requirements are provided below:

1. TMDL Annual Reporting. Each responsible Permittee shall annually report the status of its TMDL implementation in accordance with the sections titled Annual TMDL Compliance Reporting, Water Quality Monitoring, and Program Effectiveness in Attachments D or E (as applicable). Annual reports are due October 15 and cover the reporting period of the previous July 1 through June 30.
2. Regional Water Board-Specific Reports. For Regional Water Board-specific TMDL reports required under this Attachment, the responsible Permittee shall submit its reports for review and consideration of approval by the appropriate Regional Water Board Executive Officer in coordination with the State Water Board.
3. TMDL Demonstration of Compliance Report. The responsible Permittee shall report its compliance with TMDL wasteload allocations according to the requirements in the section TMDL Compliance Report in Attachments D or E, as applicable.
4. Time Schedule Order. If a responsible Permittee requires additional time to comply, the Permittee may seek a time schedule order according to the section Request for Time Schedule Order in Attachments D and E.

Requests for a time schedule order shall be submitted to the applicable Regional Water Board Executive Officer.

5. Cooperative Projects. Prior to implementation of projects pursuant to cooperative agreements or other agreements (e.g., regional, task force, local, watershed, and Regional Water Board agreements), the responsible Permittee shall submit its selected project for review and consideration of approval to the applicable Regional Water Board Executive Officer.

G3. OTHER FACTORS AFFECTING PROJECT IMPLEMENTATION

The responsible Permittee shall identify other factors (such as safety concerns and conflicting local permits) that may affect TMDL compliance project implementation. The Permittee shall include factors affecting TMDL compliance project implementation in its Annual Reports, TMDL Demonstration of Compliance Reports, and subsequent updates.

G4. TOTAL MAXIMUM DAILY LOAD REQUIREMENTS BY REGION

G4.1 NORTH COAST WATER BOARD

This Order implements two TMDLs for the North Coast Water Board: the Shasta River Watershed Temperature and Dissolved Oxygen TMDL and the Lower Eel River Temperature TMDL.

G4.1.1 Shasta River Watershed Temperature and Dissolved Oxygen TMDL

Responsible Permittee: City of Yreka

Impaired Water Body: Shasta River

TMDL Implementation Requirements: The City of Yreka shall continue to implement its existing TMDL implementation plan to minimize, control, and prevent discharges of fine sediment, nutrients and other oxygen-consuming materials, and elevated water temperature discharges from affecting wasters of the Shasta River and its tributaries. In 2013, the North Coast Water Board Executive Officer approved the City of Yreka's TMDL implementation plan.[1]

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-

[1] North Coast Water Board Basin Plan, Chapter 4, section 4.2.10, Table 4-14, Action Plan for Shasta River Watershed.

going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: Submit annual reports per section G2, above.

G4.1.2 Lower Eel River Temperature and Sediment TMDL

Responsible Permittee: City of Fortuna (Fortuna)

Impaired Water Body: Lower Eel River

TMDL Implementation Requirements: The TMDL for temperature identifies municipal runoff from Fortuna as a source of diffuse heat to the Eel River. Per the TMDL, Fortuna's compliance with this Order is expected to control TMDL pollutant sources and prevent Fortuna's discharge from causing any net increase in receiving water temperatures and therefore will implement the Lower Eel River Temperature TMDL.[2]

The North Coast Water Board Sediment TMDL Implementation Plan states that control of sediment discharges shall be implemented through permits.[3] Therefore, Fortuna shall comply with this Order to control sediment discharges to the Lower Eel River.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: Submit annual reports per section G2, above.

[2] See Table 12 of the Lower Eel River Total Maximum Daily Loads for Temperature and Sediment.
[3] North Coast Water Board Basin Plan, Section A, Sediment TMDL Implementation Policy.

G4.2 SAN FRANCISCO BAY WATER BOARD

This Order implements TMDLs for the San Francisco Bay Water Board, which includes pesticide, bacteria and pathogens, sediment, polychlorinated biphenyls, and mercury TMDLs. Sampling shall occur regardless of weather conditions, provided the conditions are safe for field staff to collect the samples. Should safety concerns preclude sampling during a qualifying storm such that a Permittee would not achieve the mandatory minimums set forth in the following requirements, the Permittee may certify that in their annual monitoring report and perform the missed samples events in the following water year.

G4.2.1 TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks

Responsible Permittees: City of American Canyon, City of Belvedere, City of Benicia, City of Calistoga, City of Larkspur, City of Mill Valley, City of Napa, City of Novato, City of Petaluma, Town of San Anselmo, City of San Rafael, City of Sausalito, City of Sonoma, City of St. Helena, County of Marin, County of Napa, County of Sonoma, Town of Corte Madera, Town of Fairfax, Town of Ross, Town of Tiburon, Town of Yountville

Impaired Water Bodies: Arroyo Corte Madera del Presidio, Calabazas Creek, Corte Madera Creek, Coyote Creek (Marin Co.), Gallinas Creek, Miller Creek, Napa River, Novato Creek, Petaluma River, San Antonio Creek, San Rafael Creek, Sulphur Springs Creek

Pesticides of Concern: Urban-use pesticides of concern to water quality include: diamides (chlorantraniliprole and cyantraniliprole); diuron, fipronil and its degradates; indoxacarb; organophosphorous insecticides (chlorpyrifos, diazinon, and malathion); pyrethroids (metofluthrin, bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, and permethrin); carbamates (e.g., carbaryl and aldicarb); and neonicotinoids (e.g., imidacloprid, acetamiprid, and dinotefuran).

TMDL Urban Creeks and Sediment Monitoring Requirements: Within 1 year of the effective date of this Order, the Permittee shall submit a monitoring plan. The Permittee shall conduct wet and dry weather monitoring of pesticides and toxicity in urban creeks and sediment.

1. Permittees may collaborate with the California Department of Pesticide Regulation for monitoring, data collection, and analysis.
    a. The City of Benicia has the additional option to collaborate with Phase I MS4 Permittees in Fairfield and Vallejo.
    b. For data collected through collaboration with Fairfield and Vallejo, California Department of Pesticide Regulation's standard operating

procedures and quality assurance/quality control methods may be used in place of the Surface Water Ambient Monitoring Program (SWAMP) comparability requirements for monitoring comply with this section, or

2. If a statewide coordinated pesticides and pesticides-related toxicity monitoring program begins collecting data on an ongoing basis during the Permit term, then Permittees may request the Regional Water Board Executive Officer modify, reduce, or eliminate monitoring requirements, provided the change would result in overall improvement of pesticide monitoring data collection.

3. Annual Dry Weather Urban Creek Monitoring - Toxicity in Water Column

   a. Toxicity Field and Laboratory Methods – Permittees shall collect grab samples of Urban Creek water using applicable SWAMP-comparable methodology.

      1) Samples shall be analyzed for the test organisms and methods listed in Table G4.2.1.a., below.

      2) Toxicity shall be evaluated using the statistical approach, Test of Significant Toxicity (TST). Each sample shall be subject to determination of "Pass" or "Fail" and shall indicate "Percent Effect" from toxicity using non-diluted samples. TST statistical results shall be used for determining trends.

      3) The Test of Significant Toxicity null hypothesis shall be "mean sample response ≤ 0.75 × mean control response." A test result that rejects this null hypothesis shall be reported as "Pass." A test result that does not reject this null hypothesis shall be reported as "Fail." The relative "Percent Effect" of the sample is defined and reported as:

((Mean control response – Mean sample response) ÷ Mean control response) × 100

Table G4.2.1.a. Test Species, Test Endpoints, Reporting, Analysis[4] and Statistical Data Assessment[5]

Test Species	Test Endpoints	Reporting	USEPA Analytical Method and USEPA TST Method for Statistical Data Assessment
Pimephales promelas (Fathead Minnow)	Larval Survival and Growth	Pass or Fail using TST, % Effect	821-R-02-013 833-R10-003

[4] Analytical method for Whole Effluent Toxicity, EPA 821-R-02-013.
[5] Reporting of Statistical Data Assessment, Test for Significant Toxicity EPA 833-R10-003.

Test Species	Test Endpoints	Reporting	USEPA Analytical Method and USEPA TST Method for Statistical Data Assessment
Ceriodaphnia dubia (Freshwater Crustacean)	Survival[a]	Pass or Fail, % Effect 25% Fails	821-R-02-013 833-R-10-003
Ceriodaphnia dubia (Freshwater Crustacean)	Reproduction	Pass or Fail using TST, % Effect	821-R-02-013 833-R-10-003
Selenastrum capricornutum (Green Algae)	Growth	Pass or Fail using TST, % Effect	821-R-02-013 833-R-10-003
Hyalella azteca (Freshwater Amphipod)	Survival	Pass or Fail using TST, % Effect[b]	821-R-02- 012 833-R-10-003
Chironomus dilutus (midge)	Survival	Pass or Fail using TST, % Effect[b]	821-R-02-012 833-R-10-003

Table G4.2.1.a Notes
TST: An abbreviation for the Test of Significant Toxicity statistical approach.

[a] *Ceriodaphnia dubia* chronic toxicity test design for the survival endpoint is not amenable to the TST, Welch's t-test so the survival endpoint will be determined as a percent effect using the TST approach. A percent effect less than 25 percent will be considered a "pass," and a percent effect equal to or greater than 25 percent will be considered a "fail."

[b] For *Hyalella* and *Chironomus* acute toxicity test methods, the test result will be considered a "pass," regardless of a TST determination of "fail" if the percent survival in the receiving water is equal to or greater than 90 percent. End Table Notes.

b. Sample Locations – Permittee's sample locations may be selected based on where toxicity is likely, coincides with creek restoration sites, or a is a location where toxicity has been found in the past. Samples should be collected upstream of tidal influence.

c. Frequency, Number of Sites, and Timeframe – If collecting samples cooperatively on a countywide basis, the countywide group shall collect samples in the dry season at the number of sample sites and frequencies shown in Table G4.2.1.b. If collecting samples independently, the Permittee shall collect one dry season sample every five years from one sample site.

Table G4.2.1.b. Annual Dry Weather Water Column Sampling - Minimum Number of Sample Sites and Events per Year for Countywide Monitoring Groups

County Where Countywide Monitoring Group is Located	Minimum Number of Sample Sites per Year	Minimum Number of Sampling Events
Marin County	1	1 per year
Napa County	1	3 per 5 years
Sonoma County	1	2 per 5 years
Solano County	1	1 per 5 years

4. Dry Weather Sediment Sampling for Toxicity, Pesticides, and Other Pollutants

   a. Field and Laboratory Methods – The Permittee shall collect grab samples of urban creek sediment using applicable SWAMP-comparable collection methods.

   b. Sediment samples shall be analyzed for the pollutants and organisms listed and by the methods in Table G4.2.1.c. Where no analytical method is listed in Table G4.2.1.c, the Permittee shall use USEPA methods listed in 40 C.F.R. subchapter D, part 136.

Table G4.2.1.c. Toxicity and Pollutants Analytical Procedures and TST Statistical Analysis

Pollutant	Units	USEPA/ASTM Analytical Method
Toxicity	Pass/Fail using TST, % Effect[a]	600/R-99-064
Pyrethroids: bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin	ppb	3540C followed by 8270D by NCI-GCMS
Fipronil and its degradates (fipronil-sulfone, fipronil-desulfinyl, fipronil sulfide)	ppb	1699
Total Polyaromatic hydrocarbons	µg/L	8310
Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc	µg/L	200.7/6010
Total organic carbon	mg/L	9060A
Grain size	grain-size diameters in millimeters and converted to phi units	ASTM D422

Table G4.2.1.c Notes

[a.] Measured by *Hyalella azteca* and *Chironoum* dilutes survival. Test result will be considered a "pass," regardless of a TST determination of "fail" if the percent survival in the receiving water is equal to or greater than 90 percent. The false positive rate (beta error) is 0.05 and the negative rate (alpha error) is 0.25 for these test methods. End of Table Notes.

c. Sediment Sample Locations – Samples shall be collected at fine-grained depositional locations. Sample locations may be selected by the Permittee to monitor locations where toxicity is likely, coincides with bioassessment sites, or is a location where toxicity has been found in the past, for example.

d. Annual Sediment Sampling, Number of Sites, Number of Samples, and Frequency – If choosing to collect samples cooperatively on a countywide basis, The countywide program shall collect at least the minimum number of sediment samples shown in Table G4.2.1.d. If the Permittee is collecting samples independently the Permittee shall collect 1 sample every 5 years at one sample site.

Table G4.2.1.d. – Annual Sediment Sampling: Minimum Number of Sites, Number of Samples, and Frequency for Countywide Monitoring Groups

County Where Countywide Monitoring Group is Located	Minimum Frequency	Minimum Number of Samples	Minimum Number Sites
Marin County	Once per year	1 per year	1
Napa County	Once per year	3 per 5 years	1
Sonoma County	Once per year	2 per 5 years	1
Solano County	Once per year	1 per 5 years	1

5. Wet Weather Urban Creek Monitoring for Pesticides and Toxicity

a. Field and Laboratory Methods – Permittees shall collect water column samples and analyze using the methods specified in Tables G4.2.1.a and in G4.2.1.c for the following groups. For imidacloprid, Permittees shall specify an analytical method that achieves a reporting level of 0.01 ppb.

1) Pyrethroids: bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin;

2) Fipronil and its degradates fipronil-sulfone, fipronil-desulfinyl, fipronil sulfide and fipronil amide (amide is optional – perform if the laboratory offers the suite);

3) Toxicity; and

4) Imidacloprid.

b. Annual Urban Creek Monitoring Locations and Timing – Permittees shall collect samples during storm events. Samples should be timed to target the first runoff event of the year (i.e. a forecasted rain event with at least a 70% chance of precipitation equal to or greater than 0.1 inches). Sample locations shall be representative of urban watersheds (i.e., bottom of watershed locations).

c. Annual Urban Creek Monitoring Frequency, Timeframe, and Number of Samples

If sampling is conducted cooperatively on behalf of all Permittees, a total of ten (10) samples shall be collected over each five-year period, with a minimum of six (6) samples collected by the end of the third water year of the permit term.

1) If sampling is conducted cooperatively on a countywide basis, the Permittees shall collect at least the minimum number of samples annually as shown in the table, below:

County Where Countywide Monitoring Group is Located	Minimum Number of Sampling Events
Marin County	1 per year
Napa County	3 per 5 years
Sonoma County	2 per 5 years
Solano County	1 per 5 years

2) If sampling independently, Permittees shall collect one sample every 5 years during the wet season.

TMDL Implementation Requirements: The Permittee may coordinate with the Bay Area Municipal Stormwater Collaborative, the Urban Pesticide Pollution Prevention Project, the Urban Pesticide Committee, and other agencies and organizations to carry out the TMDL implementation requirements. The Permittee shall implement the following requirements:

1. Continue to Maintain and Implement the Integrated Pest Management Policy or Ordinance and Standard Operating Procedures

The Permittee shall:

a. Continue to implement its Integrated Pest Management policy or ordinances, and standard operating practices developed under the previous permit to ensure the use of pesticides does not cause or contribute to pesticide-related toxicity in receiving waters.

b. Require municipal employees and contractors to adhere to its Integrated Pest Management policy or ordinance and standard operating procedures in all the Permittee's municipal operations and on all municipal property.

c. Permittees that have not previously adopted an Integrated Pest Management Policy or ordinance shall do so within 18 months of effective date of this Order.

2. Train Municipal Employees

The Permittee shall ensure that all municipal employees who, within the scope of their duties, apply or use pesticides are trained annually in Integrated Pest Management practices and the Permittee's Integrated Pest Management policy and/or ordinance and standard operating procedures. This training may also include other training opportunities, such as the ReScape California's Landscape Maintenance Qualification Training Program, provided both structural and landscape pest control training are offered.

3. Ensure Contractors Implement the Integrated Pest Management Policy

The Permittee shall:

a. Include contract specifications requiring contractors to implement Integrated Pest Management so that all contractors practice Integrated Pest Management on municipal properties.

b. Monitor contractor pesticide applications to ensure that contractors implement their contract specifications in accordance with the Permittee's Integrated Pest Management policies and/or ordinances and standard operating procedures. Contractor certification as a pest control advisor alone is not evidence of Integrated Pest Management implementation. Contractor Integrated Pest Management certifications awarded to a pest control company may not guarantee that an individual employee will always use Integrated Pest Management strategies.

c. Periodically monitor its contractors' activities to verify full implementation of Integrated Pest Management techniques.

d. Evaluate the contractors' lists of pesticides and amounts of active ingredient used.

4. Interface with County Agricultural Commissioners

The Permittee shall maintain communications with county agricultural commissioners to:

a. Receive input and assistance on urban pest management practices and use of pesticides;

b. Inform the County Agricultural Commissioner of water quality issues related to pesticides; and

c. Report any observed or citizen-reported violations of pesticide regulations (e.g., illegal handling and applications of pesticides) associated with stormwater management, particularly the California Department of Pesticide regulations for Surface Water Protection in Outdoor, Nonagricultural Settings and the use of pyrethroid pesticides by any person performing pest control for hire

5. Conduct Public Outreach

The Permittee shall:

a. Undertake outreach programs to 1) encourage communities within the Permittee's jurisdiction to reduce reliance on pesticides that threaten water quality; 2) encourage public and private landscape irrigation management that minimizes pesticide runoff; and 3) promote appropriate disposal of unused pesticides.

b. Conduct Point of Purchase Outreach to Consumers:

1) Provide targeted information on proper pesticide use and disposal, potential adverse impacts on water quality, and less toxic methods of pest prevention and control; and

2) Participate in and provide resources for the Our Water, Our World program or a functionally equivalent pesticide use reduction outreach program.

c. Conduct Pest Control Contracting Outreach

The Permittee shall conduct outreach to residents who use or contract for structural pest control and landscape professionals by 1) explaining the links between pesticide usage and water quality; and 2) providing information about Integrated Pest Management in structural pest management certification programs and landscape professional trainings; and 3) disseminating tips for hiring structural pest control operators and landscape professionals, such as the tips prepared by the University of California Extension Integrated Pest Management Program.

d. Conduct Outreach to Pest Control Professionals

The Permittee shall conduct outreach to pest control operators, urging them to promote Integrated Pest Management services to customers and to become Integrated Pest Management-certified by EcoWise

Certified or a functionally equivalent certification program. Permittee are encouraged to work with the Pesticide Applicators Professional Association; the California Association of Pest Control Advisors; California Department of Pesticide Regulation; county agricultural commissioners; University of California Extension Integrated Pest Management Program; Bay Area Municipal Stormwater Collaborative ; California Stormwater Quality Association (CASQA); EcoWise Certified Program (or functionally equivalent certification program); Bio-Integral Resource Center and others to promote Integrated Pest Management to pest control operators.

6. Evaluate Implementation of Pesticide Source Control Activities

   The Permittee shall annually evaluate implementation of pesticide source control actions to gauge how effective its implementation actions are in achieving TMDL targets and avoiding future pesticide-related toxicity in urban creeks. Once during the permit term, the Permittee shall submit a cumulative evaluation of its Integrated Pest Management efforts for effectiveness, how improvements were made, and whether additional improvements could be made, as follows:

   a. Evaluate the effectiveness of the pesticide control measures implemented by its staff and contractors;

   b. Evaluate attainment of pesticide concentration and toxicity targets for water and sediment from monitoring data (collected by the Permittee, research agencies, and/or State agencies); and

   c. Identify additions and/or improvements to existing control measures needed to attain targets, with an implementation time schedule.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: Submit the annual reports, due by October 15 of each year, and the TMDL Demonstration of Compliance Report per section G2, above. The Permittee shall report on the status of its implementation requirements for the TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks, as follows:

a. In Year 2, the Permittee shall begin submitting its Annual Monitoring Reports

1) The Permittee shall submit to the California Data Exchange Network (CEDEN) all results from its monitoring conducted pursuant to Diazinon and Pesticides-Related Toxicity in Urban Creeks TMDL.

   i. Data shall be submitted in CEDEN formats, including using the quality controls required by CEDEN.

   ii. Data collected during the previous October 1-September 30 period shall be submitted by March 31 of each year.

2) With the 2032 annual report, the Permittee shall submit a monitoring report that includes the following information:

   i. Summary tables that list the monitoring sites, with a row for each site. The table columns contain: Site ID; creek name; latitude; longitude; Permittee jurisdiction(s); water column toxicity (acute); water column toxicity (chronic); sediment toxicity (acute); sediment toxicity (chronic); and sediment chemistry.

   ii. For each site, list the site information and check the parameters sampled at that site. Provide a statement of the data quality and an analysis of the data including:

      (1) A discussion of monitoring data relative to prior conditions, beneficial uses and applicable water quality standards as described in the San Francisco Bay Water Board Basin Plan, California Ocean Plan, and California Toxics Rule (i.e., the Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California) and other applicable water quality control plans;

      (2) Where appropriate, develop hypotheses to investigate pollutant sources, trends and BMP effectiveness;

      (3) Identify and prioritize water quality impairments;

      (4) Identify potential sources (and actual if known) of water quality impairments, and provide justification for naming those sources;

      (5) Describe follow-up actions; and

      (6) Evaluate the effectiveness of existing management actions and identify additional management actions need to address water quality impairments.

b. Reporting for the Integrated Pest Management Program

   Permittee shall:

1) In each Annual Report (see section G2, above) provide links to the Permittee's Integrated Pest Management policies or ordinances and Integrated Pest Management standard operating procedures.

2) Certify they are implementing its Integrated Pest Management policy or ordinance and standard operating procedures and shall report in quantities and types of pesticide active ingredients used and explain any increases in use of pesticides of concern to water quality.

3) Provide a brief description of one or two sentences of two Integrated Pest Management tactics or strategies implemented in the reporting year. Examples could include non-chemical strategies such as monitoring, mowing weeds, mulching, and redesign of problematic landscapes; preventive actions such as sealing holes and gaps in structures, improving sanitation, and outreach to employees about how their actions contribute to pest presence; and integration of several strategies, such as tackling a rat problem by educating building occupants, improving sanitation, trimming trees away from buildings, sealing holes in the structure, and trapping rodents. To the extent possible, different Integrated Pest Management actions should be described each year, so that a range of Integrated Pest Management actions is described over the permit term.

c. Reporting for Training Municipal Employees

1) In each Annual Report, the Permittee shall report the percentage of municipal employees that apply pesticides who have received training in the Permittee's Integrated Pesticide Management policy and/or ordinance and Integrated Pesticide Management policy standard operating procedures within the reporting year. The report shall briefly describe the nature of the training, such as tailgate training provided by a Permittee's Integrated Pesticide Management coordinator, Integrated Pesticide Management training through the Pesticide Applicators Professional Association, etc.

2) Upon request by the Regional Water Board or State Water Board staff, the Permittee shall submit training materials (e.g., course outline, date, and list of attendees).

d. Reporting for Contractors' Implementation of the Integrated Pest Management Policy

In each Annual Report, the Permittee shall describe how they verified contractor compliance with the Integrated Pest Management policies and any actions taken or needed to correct contractor performance.

e. Reporting for Interface with County Agricultural Commissioners

In each Annual Report, the Permittee shall briefly describe any communications with county agricultural commissioners and report follow-up actions to correct violations of pesticide regulations.

f. Reporting on Public Outreach

In each Annual Report, the Permittee shall describe its actions taken in the three outreach categories above.

Outreach conducted at the county or regional level may be described in Annual Reports prepared at that respective level. Reports shall include a brief description of outreach conducted in each of the three categories, including level of effort, messages and target audience.

g. Reporting on Evaluation of Implementation of Pesticide Source Control Actions

With the Year 5 Annual Report, the Permittee shall submit its cumulative evaluation report. The evaluation shall include an assessment of the effectiveness of its Integrated Pest Managements efforts. The Permittee shall include the effectiveness of outreach efforts; a discussion of any improvements made in these efforts in the preceding five years; and any changes in water quality regarding pesticide toxicity in urban creeks. The Permittee's evaluation shall also include a brief description of one or more pesticide-related areas where the Permittee will focus on enhancement during the subsequent years of the permit term. Work conducted at the county or regional level may be evaluated at that respective level.

G4.2.2 General Approach for Controlling Bacteria in Permittee Discharges, San Francisco Bay Water Board Bacteria and Pathogen TMDLs

There are six bacteria and pathogen TMDLs for the San Francisco Bay Region. TMDL implementation includes both general approach requirements and TMDL-specific requirements.

The General Approach requirements in this section (G4.2.2) apply to all bacteria and pathogen TMDLs in the San Francisco Bay Water Board Region. TMDL-specific requirements are included in subsequent sections for each bacteria and pathogen TMDL.

Permittees subject to this Provision shall demonstrate compliance with bacteria related Receiving Water Limitations during this Permit term through the timely implementation of control measures and other actions to reduce bacteria discharges from their municipal separate storm sewer systems in accordance with the requirements of this Provision. Permittees shall implement the following actions and measures to reduce bacteria discharges:

1. Municipal Operations Bacteria Evaluation and Control

   The Permittee shall:

   a. Evaluate the potential for municipal operations to generate and cause bacteria to be transported to surface waters. Where such potential is identified, the Permittee shall develop and implement best management practices to minimize the transport of bacteria.

   b. Develop and implement best management practices to minimize potential bacteria sources, including, but not limited to, trash, human and animal fecal sources, and excessive biofilm, for the following municipal operations:

      1) Street and road cleaning;

      2) Parks and municipal open space maintenance;

      3) Sidewalk, plaza, and pavement cleaning; and

      4) MS4 component maintenance, such as cleaning biofilm from catch basins, piping, and pump stations.

2. Industrial/Commercial Site Bacteria Control and Illicit Discharge Detection and Elimination

   The Permittee shall:

   a. Train municipal inspection, illicit discharge detection, and enforcement staff to enhance its focus of potential bacteria sources at industrial and commercial site controls.

   b. Use its enforcement authorities to ensure bacteria sources are controlled.

   c. Enhance efforts, including where appropriate via implementation of the Illicit Discharge and Spill Response Plan, to prevent the transport to surface waters from the following potential bacteria sources:

      1) Roof and exterior washoff of commercial and industrial structures and surfaces, where these sources are likely to contain bacteria from rodent and bird wastes and are likely to be discharged to receiving water,

      2) Outdoor garbage and recycle bins,

      3) Outdoor floor-mat washoff,

      4) Portable toilets, and

      5) Illicit discharges to the MS4.

3. Control Bacteria Sources Related to Unsheltered Homeless Populations

The Permittee shall:

a. Evaluate the potential for bacteria to transport to surface waters from areas inhabited by unsheltered homeless persons. Where the potential exists, develop and implement best management practices to minimize such bacteria sources and transport.

b. Minimize the transport of bacteria from areas of unsheltered homeless persons by taking actions that include the following:

   1) Provide pump-out stations, mobile pumping services, or voucher programs for proper disposal of sanitary sewage where unsheltered homeless persons reside in recreational vehicles.

   2) Provide sanitation services, including access to running water, where feasible, at locations where unsheltered individuals live or congregate.

   3) Establish and update sidewalk, street, and/or plaza cleaning standards for the cleanup and appropriate disposal of human waste.

   4) Practices that harm or criminalize unsheltered residents, such as encampment sweeps, will not be recognized when considering compliance with this Order.

4. Pet and Livestock Bacteria Source Control

   The Permittee shall:

   a. Evaluate the potential of domestic animal sources of bacteria (e.g., pet waste, kennels, horse boarding facilities, and trails) to generate and transport associated bacteria to surface waters. Where the potential exists, develop and implement best management practices to minimize sources and prevent bacteria transport.

   b. Minimize the transport of bacteria from domestic animal sources to surface waters by taking the following actions:

      1) Enhance the number and maintenance of pet waste stations.

      2) Implement a visual inspection and cleanup plan for high dog waste accumulation areas by 3 months after effective date of this Order.

      3) Inspect pet boarding facilities to ensure pet waste is managed to prevent offsite discharges.

      4) Inspect horse boarding facilities to ensure manure is managed to prevent offsite discharges. Notify the San Francisco Bay Water Board staff of facilities that should enroll in the Confined Animal Facility program.

5. Public Outreach on Bacteria Source Control

   The Permittee shall:

   a. Educate the public regarding sources and health risks of fecal pathogens in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading. Evaluate public outreach currently conducted to encourage bacteria pollution prevention and determine how to improve this outreach (e.g., by focusing outreach on certain populations or at certain locations).

   b. Enhance public outreach where it is likely to improve human behavior concerning bacteria pollution prevention practices, including:

      1) Cleaning up and disposing of pet waste

      2) Eliminating litter

      3) Eliminating outdoor restaurant floor mat washdown

      4) Using proper best management practices for sidewalk cleaning

      5) Covering trash storage areas

      6) Maintaining porta-potties properly.

6. Coordination with Sanitary Sewerage System Entities

   The Permittee shall, to the extent necessary and within its limits of authority:

   a. Collaborate with sanitary sewer system agencies to minimize overflows and leaks from the conveyance system. Overflows and leaks cause bacteria to be transported to MS4s, who are not responsible for maintenance and repair of the sanitary sewerage system.

   b. Collaborate with its counterparts who are responsible for maintenance of the sanitary sewerage system to assist with the following:

      1) Prioritize maintenance and repair in areas contributing to bacteria loads to surface waters with elevated bacteria levels.

      2) Ensure rapid and thorough response to cleanup of sanitary sewer system overflows.

      3) Develop lateral maintenance and replacement programs for consideration by the appropriate legal authority.

7. Prioritize Trash Removal to Control Bacteria Sources

   The Permittee shall:

   a. Identify areas where trash generation likely contributes to bacteria exceedances in areas where trash control efforts are required.

b. Evaluate the potential bacteria reduction benefit of reprioritizing trash control actions to areas identified in section 7.a.

c. Note any trash control actions reprioritized or initiated based on the evaluation in section 7.b

8. Compliance With Wasteload Allocations

The Permittee shall:

a. Determine whether discharges from its MS4 are causing or contributing to exceedances of bacteria receiving water standards. If discharges are causing or contributing to exceedances of bacteria water quality standards the Permittee shall submit a report that documents identified sources of bacteria, the controls that have been completed, and submit a plan for additional actions to reduce bacteria in discharges from the MS4 with the Year 5 Annual Report

b. Provide a comprehensive assessment of bacteria sources and bacteria controls to demonstrate compliance with the wasteload allocations. The assessment shall describe additional control measures or increased levels of implementation for existing control measures, with an implementation schedule and proposed milestones that will be implemented to attain bacteria wasteload allocations within the following 5 year period.

1) Mid-Permit Interpretive Report shall be submitted with the third year annual report.

a) All data collected through the third permit year and description of data validation and quality;

b) Description of progress towards answering questions in this section; and

c) Description of specific bacteria sources and specific geographic areas that receive implementation of existing control measures, as well as recommended new, modified, or enhanced controls that will be evaluated or implemented.

2) A Final Interpretive Report shall be submitted with the Year 5 Annual Report.

a) All data collected through end of reporting Year 5 and description of data validation and quality;

b) Description of progress towards answering questions in the General Bacteria Control Section;

c) Description of specific bacteria sources and/or specific geographic areas that received implementation of existing control measures, including the following: new, modified, or enhanced control that were evaluated or implemented;

d) Determination if bacteria wasteload allocations have or will be met, by the end of reporting Year 5; and

e) If discharges are causing or contributing to exceedances of bacteria receiving water quality standards met by the end of reporting Year 5, description of additional control measures or increased levels of implementation for existing control measures, with an implementation schedule, and proposed milestones, that will be implemented within the following 5-year period.

9. TMDL Reporting Requirements

Submit the annual reports and the TMDL Demonstration of Compliance Report per section G2, above. In each TMDL Annual Report required under section G2 (above) and the reporting sections of Attachments D and E (as applicable), the Permittee shall:

a. Describe the best management practices, frequency and location for actions taken to reduce bacteria sources related to the following 1) Municipal operations; 2) Industrial and Commercial Site Bacteria Control/Illicit Discharge Detection and Elimination; and 3) pet and livestock bacteria source control.

b. Describe the best management practices, numbers or frequency (as applicable), and locations of actions taken to reduce bacteria discharges from areas inhabited by unsheltered persons.

c. Describe the outreach messages, methods of delivery, audiences, locations (as applicable) and number of repetitions.

d. Describe the status of any actions taken to coordinate with the sanitary sewer entities.

e. Starting with the Year 4 Annual Report, the Permittee shall describe how the bacteria-reduction benefit of focused trash-control efforts was evaluated, the conclusions reached, and any actions taken during the reporting period to reprioritize trash control areas.

f. Describe participation in watershed or stakeholder groups, any TMDL water quality monitoring results, and progress made on implementation of TMDL-specific human and animal waste runoff reduction measures. This information shall be reported in a separate and dedicated section.

G4.2.3 Napa River Pathogens TMDL

Responsible Permittees: City of American Canyon, City of Calistoga, City of Napa, City of St. Helena, County of Napa, Town of Yountville

Impaired Water Body: Napa River

TMDL Implementation Requirements: The Permittee shall implement the actions described under section G4.2.2, the General Approach for Controlling Bacteria in MS4 Discharges, and shall continue to implement or enhance implementation of the following actions:

1. Pet Waste Management. Implement enforceable means of reducing/eliminating fecal pathogens loading from pet waste.
2. Illicit Discharge Detection and Elimination. Implement strategies to detect and eliminate Illicit discharges (whether mistaken or deliberate) of sewage to the Napa River.
3. Pollution Prevention and Good Housekeeping. Implement strategies to reduce/eliminate fecal pathogens loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal pathogens to the Napa River.

TMDL Monitoring Requirements: Participate in the Regional Water Board's stakeholder effort to conduct water quality monitoring at monitoring sites.

1. Conduct water quality monitoring to evaluate *E. coli* concentration trends in the Napa River and its tributaries. Conduct monitoring at the locations listed in Table G4.2.3.
    a. Sample each location for *E. coli* ten times each year. Collect five samples weekly during one 30-day period in each wet season (November through March) and one 30-day period in each dry season (May through September).
    b. Conduct additional monitoring as needed if funds are available.
    c. Perform all water quality monitoring (including quality assurance and quality control procedures) according to the State Water Board's Quality Assurance Management Plan for the Surface Water Ambient Monitoring Program.
    d. In lieu of the monitoring of the Napa River Watershed Baseline Monitoring Sites shown in Table G4.2.3, one or more implementing parties may submit an alternative monitoring plan for Executive Officer approval.

Table G4.2.3. Napa River Watershed Baseline Monitoring Sites

Baseline Monitoring Sites (sites will be determined by Water Board staff in coordination with the Permittee)
Napa River at Third Street, Napa, City of
Napa River at Zinfandel Lane, St. Helena, City of
Napa River at Calistoga Community Center, Calistoga, City of
Browns Valley Creek at Browns Valley Road, Napa, City of
Browns Valley Creek at Borrette Lane, Napa, City of
Murphy Creek at Coombsville Road, Napa, County of
Murphy Creek at upstream location to be determined [a.]
Salvador Channel at Solano Avenue, Napa, County of
Salvador Channel at Dry Creek Road, Napa, County of
Four additional tributaries to be determined [a], rotated each year

Table Legend

[a.] Site will be determined by Water Board staff in coordination with stakeholders.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: The Permittee shall report according to reporting requirements in the General Approach for Controlling Bacteria in MS4 Discharges (section G4.2.2.9 above). In the TMDL Annual Report (see section G2), the Permittee must demonstrate that it is in compliance with specified implementation measures.

G4.2.4 Sonoma Creek Pathogens TMDL

Responsible Permittees: City of Sonoma, County of Sonoma, Sonoma Water

Impaired Water Body: Sonoma Creek

TMDL Implementation Requirements for City of Sonoma and County of Sonoma: The City of Sonoma and County of Sonoma shall implement the General Approach for Controlling Bacteria in MS4 Discharges and shall continue to implement or enhance implementation of the following actions as described above in the General Approach for Controlling Bacteria in MS4 Discharges:

1. Pet Waste Management. Implement enforceable means of reducing and eliminating fecal coliform loading from pet waste.
2. Illicit Discharge Detection and Elimination. Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Sonoma Creek.
3. Pollution Prevention and Good Housekeeping. Implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal coliform to Sonoma Creek.

TMDL Monitoring Requirements for City of Sonoma and County of Sonoma: The City of Sonoma and County of Sonoma shall conduct water quality monitoring to evaluate *E. coli* concentration trends in Sonoma Creek and its tributaries. Table G4.2.4 presents locations for water quality monitoring.

1. Each site shall be sampled for *E. coli* ten times each year. Five samples shall be collected weekly during one 30-day period in each wet season (November through March) and one 30-day period in each dry season (May through September).
2. Additional monitoring shall be conducted as needed if funds are available.
3. All water quality monitoring (including quality assurance and quality control procedures) shall be performed pursuant to the State Water Board Quality Assurance Management Plan for the Surface Water Ambient Monitoring Program.

Table G4.2.4. Sonoma Creek Watershed Monitoring Sites

Sonoma Creek Watershed Monitoring Sites
Sonoma Creek at Highway 12
Sonoma Creek Below Kenwood
Sonoma Creek at Sonoma Developmental Center
Sonoma Creek at Maxwell Park
Sonoma Creek at Watmaugh Road
Nathanson Creek at Nathanson Park
Nathanson Creek at Watmaugh Road
Schell Creek at Highway 121

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements for City of Sonoma and County of Sonoma: The City of Sonoma and County of Sonoma shall report according to requirements in section G4.2.2.9, the General Approach for Controlling Bacteria in MS4 Discharges. In the TMDL Annual Report (section G2), the Permittee must demonstrate compliance with specified implementation measures.

TMDL Implementation Requirements for Sonoma Water: Sonoma Water shall:

1. Continue to implement actions as specified in Sonoma Water's updated Storm Water Management Plan. A previous version was approved under the 2003 General Permit (State Water Board Order 2003-0005-DWQ).
2. Review annually and update the TMDL attainment actions, as necessary.

TMDL Reporting Requirements for Sonoma Water: Sonoma Water shall:

1. Report progress on TMDL implementation measures according to the TMDL Annual Reporting requirements in section G2, above.
2. Demonstrate compliance with the wasteload allocations per the requirements in the section G2, TMDL Demonstration of Compliance Report.

G4.2.5 Tomales Bay Watershed Pathogens TMDL

Responsible Permittee: County of Marin

Impaired Water Bodies: Lagunitas Creek, Olema Creek, Tomales Bay, Walker Creek.

TMDL Implementation Requirements: The Permittee shall implement the requirements in section G4.2.2, the General Approach for Controlling Bacteria in MS4 Discharges, and shall continue to implement or enhance implementation of the following actions:

1. Public Participation and Outreach. Educate the public regarding sources of fecal pathogens and associated health risks of fecal pathogens in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.
2. Pet Waste Management. Implement enforceable means of reducing/eliminating fecal pathogens loading from pet waste. Install and maintain new or additional dog waste cleanup signs, waste bag dispensers, and trash bins in a minimum of ten high dog waste accumulation areas by areas by the end of the first reporting year.
3. Illicit Discharge Detection and Elimination. Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Tomales Bay.
4. Pollution Prevention and Good Housekeeping. Implement strategies to reduce/eliminate fecal pathogens loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal pathogens to Tomales Bay.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: The Permittee shall report according to reporting requirements in the General Approach for Controlling Bacteria in MS4 Discharges (section G4.2.2.9 above). In the TMDL Annual Report (section G2), the Permittee must demonstrate that it is in compliance with specified implementation measures. Report annually on water quality monitoring results and progress made on implementation of human and animal waste runoff reduction measures and compliance with specified implementation measures.

G4.2.6 Richardson Bay Pathogens TMDL

Responsible Permittees: City of Belvedere, City of Mill Valley, City of Sausalito, County of Marin, Town of Tiburon

Impaired Water Body: Richardson Bay

TMDL Monitoring Requirements: The Permittees shall continue to conduct or support bacteria water quality monitoring in Richardson Bay as conducted by the Richardson Bay Regional Agency.

TMDL Implementation Requirements: The Permittee shall implement the actions described under the General Approach for Controlling Bacteria in MS4 Discharges (section G4.2.2, above) and shall continue to implement or enhance implementation of the following actions:

1. Public Participation and Outreach – Educate the public regarding sources of fecal pathogens and associated health risks of fecal pathogen in surface waters. Educate the public, including the floating home and recreational and commercial vessel owners and operators, regarding actions that individuals can take to reduce pathogen loading.
2. Pet Waste Management – Implement enforceable means of reducing/eliminating fecal pathogens loading from pet waste. Install and maintain additional dog waste cleanup signs, waste bag dispensers, and trash bins in high dog waste accumulation areas by the end of the first reporting year.
3. Illicit Discharge Detection and Elimination – Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Richardson Bay.
4. Pollution Prevention and Good Housekeeping – Implement strategies to reduce/eliminate fecal pathogens loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal pathogens to Richardson Bay.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: The Permittee shall report according to reporting requirements in the General Approach for Controlling Bacteria in MS4 Discharges (section G4.2.2.9 above). In the TMDL Annual Report (see section G2), the Permittee must demonstrate that they are in compliance with specified implementation measures.

G4.2.7 San Francisco Bay Beaches Bacteria TMDL

Responsible Permittees: Candlestick Point State Recreation Area, California State Parks and Recreation; County of Marin; Presidio of San Francisco; City of San Francisco (San Francisco Public Utilities Commission)

Impaired Beaches: Aquatic Park Beach, City of San Francisco; Jackrabbit, Sunnydale Cove, and Windsurfer beaches in Candlestick Point State, Recreation Area, San Francisco; Crissy Field Beach, San Francisco; and McNears Beach, County of Marin.

TMDL Implementation Requirements: The Permittee shall implement the actions described under section G4.2.2, above, the General Approach for Controlling Bacteria in MS4 Discharges.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

TMDL Reporting Requirements: The Permittee shall report according to reporting requirements in the General Approach for Controlling Bacteria in MS4 Discharges (section G4.2.2.9 above). In the TMDL Annual Report (see section G2), the Permittee must demonstrate that they are in compliance with specified implementation measures.

G4.2.8 Petaluma River Bacteria TMDL

Responsible Permittees: City of Novato, City of Petaluma, County of Marin, County of Sonoma

Impaired Water Bodies: Adobe Creek, Ellis Creek, Lichau Creek, Lynch Creek, Petaluma River, San Antonio Creek, Willow Brook

TMDL Monitoring Requirements: The Permittee shall submit a monitoring plan to the San Francisco Bay Water Board Executive Officer for review. The monitoring plan shall achieve the following goals: 1) better characterization of fecal indicator bacteria contributions from the Permittee's sources/jurisdictions, 2) assessment of best management practices effectiveness, and 3) assessment of progress towards attainment of its wasteload allocations.

TMDL Implementation Requirements: The Permittee shall implement the actions described in section G4.2.2, 1-7 above, the General Approach for Controlling Bacteria in MS4 Discharges.

To meet the municipal stormwater runoff TMDL wasteload allocations and prevent or reduce discharges of bacteria from the MS4, the Permittee shall implement or enhance implementation of the following actions.

1. Each year, ensure at least 20 percent of the stormwater system draining to the Petaluma River is evaluated for illicit connections. Evaluate the entire MS4 system draining to the Petaluma River watershed for sanitary discharges. The Permittee shall comply with this requirement by submitting the following:
    a. A start date for evaluation of at least 20 percent of the storm sewer system draining to the Petaluma River watershed per year for illicit connections, illicit discharges and/or infiltration from the sanitary sewer collection system;
    b. A map of the entire storm sewer system and the portions scheduled for inspection each year;
    c. The timeline should include completion of this requirement no later than May 10, 2031.
2. Address potential pet waste discharges into the storm sewer system. Control of pet waste discharges into the storm sewer system that includes the following:
    a. Specific actions before winter rains, when complying with Provision G4.2.2 Item #4; Pet and Livestock Bacteria Source Control
    b. Inspect, evaluate, and improve the service frequency of dog waste bins, as needed; and
    c. Starting in Year 1, implement a comprehensive pet waste public outreach and education campaign per G4.2.2 Item #5, Public Outreach on Bacteria Source Control, that considers the following:
        1) Establishment or support of a new public pet waste management stakeholder group (e.g., formal, or informal dog owners club), if one or more does not exist;
        2) Preparation and implementation of public service announcements regarding pet waste management and associated impacts to the Petaluma River and its tributaries to play on the local television station and to include in print ads in the local newspapers;
        3) Distribution of a mailer with an informational brochure to residents and businesses describing proper pet waste management, the linkage of the watershed to the Petaluma River and its tributaries,

and the adverse impact on those water bodies and those recreating in them from improper pet waste management;

4) Add to or maintain on its website the information on the TMDL and the water quality monitoring and best management practices implementation activities, information about proper pet waste management, and the impact of improperly deposited waste on water quality of the Petaluma River and its tributaries and public health;

5) Create and distribute a digital pre-rain pet waste cleanup email or social media (e.g., Nextdoor) alert to residents, reminding them to clean up accumulated pet waste in their yards that could otherwise get washed into the Petaluma River and its tributaries;

6) Participate in local events and festivals to distribute pet waste management materials (educational fliers, dog waste bags, etc.); and

7) No later than 90 days after the effective date of this Order, implement the pet waste public outreach and education campaign.

3. Control bacteria discharges and stormwater discharges from the Petaluma Marina, a facility owned and operated by the City of Petaluma, which includes the following:

   a. “No dumping” education efforts to vessel owners, to occur no later than 180 days from the effective date of this Order;

   b. Evaluation and assurance of adequacy and proper performance of sewage collection systems (sewage dump stations, sewage pumpout stations, sewer lines, etc.) for vessel marinas, by the end of Year 1; and

   c. Installation, as needed, of additional sewage pumpout and dump stations by June 30, 2030.

4. Control and effectively prohibit and prevent potential illicit discharges into the storm sewer system from homeless encampments’ human waste and the sanitary sewer collection system. Control discharges and stormwater discharges associated with unsheltered homeless populations, such as those living in tents, other outdoor shelters, and recreational vehicles, that are a potential source of the high bacteria levels in the watershed, The Permittee shall develop the following:

   a. A timeline for the implementation of best management practices or appropriate control measures to control discharges of trash and human waste in areas where informal tent or small cabin encampments occur near streams;

b. A timeline to implement trash pickup services, delivery and maintenance of porta potties or other sanitary services, and mobile pumpout services, as needed at informal tent encampments and recreational vehicles;

c. A timeline for targeted stormwater channel cleanups; and

d. A timeline for outreach to encampment residents and recreational vehicles occupants and owners.

e. Within 5 years of the effective date of this Order, complete implementation of all items a – d, above.

f. Practices that harm or criminalize unsheltered homeless residents, such as encampment sweeps, will not be recognized when considering compliance with this Order.

5. Monitoring Plans and Requirements

The Permittees are responsible for developing and implementing a comprehensive monitoring plan to accomplish the following goals: 1) better characterize fecal indicator bacteria contributions from its sources/jurisdictions, 2) assess best management practices (BMP) effectiveness, and 3) assess progress towards attainment of its respective wasteload allocations.[6]

a. The City of Petaluma shall implement its long-term bacteria water quality monitoring plan as described in its "Short-Term Monitoring Summary and Long-Term Monitoring Proposal," submitted on January 14, 2025, approved by the San Francisco Bay Regional Water Board staff on January 21, 2025, and summarized in Table G4.2.8 below.

[6] San Francisco Bay Water Board Basin Plan, section 7.8.5.8 Water Quality Monitoring

Table G4.2.8. Summary of Sampling for City of Petaluma Long-Term Bacteria Monitoring Plan

Initial/Starting Timeline	Frequency	Sampling Method	Analysis	Location
Jan- April 2025	Once	Geomean [1],	*E. coli*	Identify priority MS4 outfalls into Lynch & Washington creeks
Jan- April 2026	Every Other Year - wet & dry	Single Grab [2].	*E. coli*, MST *	Priority MS4 outfalls identified in row 1 of this table
Jan- April 2026	Every Other Year - wet & dry	Geomean	*E. coli*, MST**	206LYN262
Jan- April 2026	Every Other Year - wet & dry	Geomean	*E. coli*, MST**	206PET215
Jan- April 2030	Every 6 Years- wet & dry	Geomean	*E. coli*, MST**	CAP311
Jan- April 2030	Every 6 Years-wet & dry	Geomean	*E. coli*, MST**	ADO120
Jan- April 2026	Every Other Year - wet & dry	Geomean	*Enterococcus*, MST**	PET-Marina-Dock
Jan- April 2026	Every Other Year - wet & dry	Geomean	*Enterococcus*, MST**	206PET098
Jan- April 2026	Every Other Year - wet & dry	Geomean	*Enterococcus*, MST**	206PET205
Jan- April 2026	Every Other Year - wet & dry	Geomean	*E. coli* & *Enterococcus*, MST**	206PET310

Table G4.2.8 Legend

1. Geomean is a sampling method that is composed of samples taken 5 out of 6 weeks to calculate a geometric mean from the analytical results.
2. A single grab sample is a discreet, single sample obtained from one specific location and time.

Wet & Dry- Sampling events will be conducted in both wet and dry seasons.
MST - Microbial Source Tracking is a group of advanced analytical methods and protocols specifically designed to identify sources of fecal contamination in surface water.
MST* - Sampling will be performed dependent on the *E. coli* results.
MST** - Sampling will be performed at least once in a 6-week sampling event, dependent on *E. coli*/*Enterococcus* results.

b. The County of Sonoma shall implement its long-term bacteria water quality monitoring plan as described in its "Bacteria Monitoring Plan for the Sonoma County Phase II MS4 Permit Area with the Petaluma River Watershed" submitted on February 28, 2025, approved by the San Francisco Bay Water Board staff on June 26, 2025, and summarized in Table G4.2.9, below. In the 2025-2026 monitoring year Sonoma County will collect 55 *E. coli* samples, and 8 microbial source tracking samples. In the 2026-2027 monitoring year Sonoma County will collect 15 *E. coli* samples and 3 microbial source tracking samples. In the 2027-2028 monitoring year Sonoma County will collect 90 *E. coli* samples and 9 microbial source tracking samples.

Table G4.2.9. Summary of Sampling for County of Sonoma Long-Term Bacteria Monitoring Plan

Timeline	Station Code	Frequency	Station Description	Sampling Method/Analysis	Latitude, Longitude
July 2025 – June 2026	PN1b	1 wet	Rancho Adobe at Adobe Rd.	Geomean/MST[a]	38.298285, -122.661279
July 2025 – June 2026	PN1a	1 wet	East St. Culvert	Geomean/MST	38.295662, -122.661306
July 2025 – June 2026	PN3a	1 wet	Kyler Ct Culvert at Old Redwood Hwy	Geomean/MST	38.298797, -122.672066
July 2025 – June 2026	PN3c	1 wet	Old Redwood Hwy Culvert btw Hatchery and Philips	Geomean/MST	38.271718, -122.676919
July 2025 – June 2026	PN4a	1 wet, 1 dry	Upstream - Adobe Rd at Lichau Cr	Geomean/MST	38.299885, -122.672505
July 2025 – June 2026	PN4b	1 wet, 1 dry	Lichau Cr at Penngrove Park	Geomean/MST	38.294363, -122.666333
July 2025 – June 2026	PN4c	1 wet, 1 dry	Downstream Ely Rd at Lichau Cr	Geomean/MST	38.283326, -122.666406

Timeline	Station Code	Frequency	Station Description	Sampling Method/Analysis	Latitude, Longitude
July 2025 – June 2026	PN5a	1 wet	Goodwin Ave Culvert at Old Redwood Hwy	Geomean/MST	38.284481, -122.667458
July 2026 – June 2027	PW1a	1 wet	Petaluma Blvd N at Jessie Ln	Geomean/MST	38.252768, -122.649009
July 2026 – June 2027	PW1b	1 wet	Petaluma Blvd N at Skillman Rd/Corona Rd	Geomean/MST	38.260030, -122.660349
July 2026 – June 2027	PW1c	1 wet	Culvert at Bailey Ave	Geomean/MST	38.267300, -122.671067
July 2027 – June 2028	PW2a1	1 wet, 1 dry	Marin Creek E at Bodega Ave	Geomean/MST	38.241831, -122.678030
July 2027 – June 2028	PW2a2	1 wet, 1 dry	Marin Creek E at Skillman Ln	Geomean/MST	38.255953, -122.679532
July 2027 – June 2028	PW2	1 wet, 1 dry	Marin Creek E at Rainsville Rd	Geomean/MST	38.270611, -122.684296
July 2027 – June 2028	PW2b1	1 wet, 1 dry	Marin Creek W at Bodega Ave	Geomean/MST	38.246587, -122.664172
July 2027 – June 2028	PW2b2	1 wet, 1 dry	Marin Creek W at Skillman Lane	Geomean/MST	38.256142, -122.684405
July 2027 – June 2028	PW3a	1 wet, 1 dry	Kizer Creek at Bodega Ave	Geomean/MST	38.251693, -122.698449
July 2027 – June 2028	PW3b	1 wet, 1 dry	Kizer Creek at Skillman Lane	Geomean/MST	38.256201, -122.698438

Timeline	Station Code	Frequency	Station Description	Sampling Method/Analysis	Latitude, Longitude
July 2027 – June 2028	PW3c	1 wet, 1 dry	Wiggin's Hill Creek at Rainsville Rd	Geomean/MST	38.270631, -122.688923
July 2027 – June 2028	PW3a1	1 wet, 1 dry	Freeman Creek at Liberty Rd	Geomean/MST	38.258501, -122.700927

Table G4.2.9 Legend:

Wet / Dry: Sampling events will be conducted in both wet and dry seasons.
MST [a]: Microbial Source Tracking is a group of advanced analytical methods and protocols specifically designed to identify sources of fecal contamination in surface water.
Geomean: Sampling method that is composed of samples taken 5 out of 6 weeks to calculate a geometric mean from the analytical results.

c. The County of Marin and City of Novato shall implement the long-term bacteria water quality monitoring plan as described in its "Long-Term Bacteria Monitoring Plan: For the County of Marin and the City of Novato" submitted on March 11, 2025, approved by the Water Board staff on June 26, 2025, and summarized in Table G4.2.10 below. The total number of annual trend samples to be collected is 40, the total number of annual source area samples to be collected is 20, the total number of annual Microbial Source Tracking samples to be collected is 2.

Table G4.2.10. Summary of Sampling for County of Marin and City of Novato Long Bacteria Monitoring Plan

Timeline	Station Code	Annual Frequency	Station Description	Sampling Method
Ongoing	SAN-A-010	Wet/Dry[a.]	San Antonio Creek – upstream of San Antonio bridge crossing	Geomean with statistical trend analysis
Ongoing	PET-002	Wet/Dry	Petaluma River – Black Point Boat Launch dock	Geomean with statistical trend analysis

Timeline	Station Code	Annual Frequency	Station Description	Sampling Method
Ongoing	RCGG	Wet/Dry	Rush Creek downstream at Golden Gate Place	Geomean and statistical trend analysis
Ongoing	RCTRL	Wet/Dry	Rush Creek ~300 ft from west end of Pinheiro Fire Road trailhead	Geomean and statistical trend analysis
Ongoing	BC1	1	Basalt Creek upstream of Binford Rd	*Enterococcus*, Source Area
Ongoing	BEAT1	1	Beattie Lane – Hunters Club Rd	*Enterococcus*, Source Area
Ongoing	BAHAI1	1	Bahia Channel	*Enterococcus*, Source Area
Ongoing	WH1	1	Wood Hollow Creek	*E. coli*, Source Area
Ongoing	PF1	1	Pinheiro Fire Road subwatershed Atherton Ave North and East	*E. coli*, Source Area
Ongoing	ATH1	1	Atherton Ave southwest subwatershed	*E. coli*, Source Area
Ongoing	ESC1	1	Escallonia Drive subwatershed	*E. coli*, Source Area
Ongoing	GGP1	1	Golden Gate Place subwatershed	*E. coli*, Source Area
Ongoing	CHR1	1	Cherry St subwatershed	*E. coli*, Source Area
Ongoing	TBD	1	Additional Sites to be Identified	

Timeline	Station Code	Annual Frequency	Station Description	Sampling Method
Ongoing		2	Source Area MST monitoring. The sample location may vary based on suspected sources. Permittee chooses sampling stations.	MST tracking for Human + Dog and/or Horse depending on sample location and suspected sources.

Table G4.2.10 Legend:
Wet/Dry [a]: Sampling events will be conducted in both wet and dry seasons: once per wet and once per dry season.
MST Microbial Source Tracking is a group of advanced analytical methods and protocols specifically designed to identify sources of fecal contamination in surface water.
Geomean: Sampling method that is composed of samples taken 5 out of 6 weeks to calculate a geometric mean from the analytical results.

4. Water Quality Monitoring Reporting

   a. In the annual reports, per section G2, above, the Permittee shall submit a comprehensive Water Quality Monitoring Report for any data collected during the previous monitoring period, beginning July 1 and ending June 30.

   b. Data evaluation shall focus on addressing the following questions:

      1) Which land uses and/or sources contribute most to bacteria impairments in the Petaluma River Watershed?

      2) Are controllable sources of fecal contamination (e.g., human, horses, dogs) present in the Petaluma River watershed?

      3) What are the multi-year indicator bacteria concentration trends in the Petaluma River Watershed?

      4) Do control measures appear to be reducing bacteria?

   c. The Report shall include the following:

      1) A map showing all monitoring locations (immediately following the Table of Contents);

      2) A data tables section (immediately following the map) that includes all the data collected pursuant to this requirement and contains the following information pertaining to the foregoing monitoring period:

         a) A single completed Locations and Parameters Table containing the following columns or rows for each location sampled: numeric site identifier, a short-hand site name, latitude, longitude, and parameters assessed; and

         b) Immediately following the Locations and Parameters Table, a single completed Results Table containing the following columns or rows for each location sampled: the short-hand site name and datum, date, constituent, and associated result. Constituents that exceed applicable water quality objectives shall be highlighted.

      3) Include a statement of the data quality for all data.

      4) An analysis of the data, which includes the following:

         a) Basic descriptive statistics using indicator bacteria data;

         b) Identification and evaluation of any controllable sources of fecal contamination (e.g., human waste, cow/cattle waste, horse waste, dog waste) present in the Petaluma River watershed;

         c) Identification and analysis of any trends in stormwater or receiving water quality; and

d) Consideration of seasonal, interannual, and spatial variability in the data sets.

5) A discussion of the data, which shall:

a) Discuss monitoring data relative to prior conditions, beneficial uses and applicable water quality standards as described in the Basin Plan;

b) Where appropriate, develop hypotheses to investigate pollutant sources, trends, and best management practice effectiveness;

c) Identify and prioritize bacteria water quality problems;

d) Identify potential sources of water quality problems;

e) Describe follow-up management actions taken to address areas with high bacteria levels;

f) Evaluate the effectiveness of existing control measures; and

g) Identify future management actions needed to address water quality problems.

6) Report on attainment of the wasteload allocations specified in General Approach for Controlling Bacteria in MS4 Discharges section VIII.

7) The County of Sonoma shall submit a Final Water Quality Monitoring Report to the Regional Water Board in October 2029 along with its annual report and include a follow up long-term monitoring plan for approval by the Regional Water Board Executive Officer.

TMDL Reporting Requirements: Submit TMDL Annual Reports, per the requirements in section G2, above. Demonstrate compliance with the wasteload allocations per the requirements in the section titled TMDL Demonstration of Compliance Report found in section G2 and in Attachments D and E.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

G4.2.9 Napa River Sediment TMDL

Responsible Permittees: City of American Canyon, City of Calistoga, City of Napa, City of St. Helena, County of Napa, Town of Yountville

Impaired Water Body: Napa River

TMDL Implementation Requirements: The Permittee shall implement the following:

1. Sediment Wasteload Allocations

   The Permittee shall comply with the requirements in this TMDL section and the Order.

2. Implementation of Sediment load Allocations for Urban Runoff

   a. To attain the shared load allocation of 27,000 metric tons per year, Napa County shall implement measures to repair and/or reconstruct road crossings to minimize road-related sediment delivery (less than or equal to 500 cubic yards per mile per 20-year period) to stream channels. To reduce road-related erosion and protect stream-riparian habitat conditions, Napa County shall:

      1) Continue to implement and update best management practices for maintenance of unimproved (dirt and/or gravel) roads to ensure that the load allocation will be met,

      2) Document in the Annual Report that the survey of stream-crossings associated with paved public roadways was finalized, and

      3) Continue to implement a schedule for the maintenance of unimproved (dirt and/or gravel) roads and best management practices to ensure attainment of the wasteload allocation and the repair and/or replacement of high priority crossings/culverts identified in the survey.

   b. For paved roads, erosion and sediment control actions shall primarily focus on road crossings to meet the sediment load allocation.

Final Compliance Deadline: The final compliance deadline for attainment of the wasteload allocations is not specified in the TMDL. Therefore, this is an on-going effort that is implemented throughout the term of this Order and any administrative extension.

Reporting: Submit TMDL Annual Reports per the requirements in section G2 above. Demonstrate compliance with the wasteload allocations per the TMDL Demonstration of Compliance requirements in section G2 and in Attachments D or E.

G4.2.10 Sonoma Creek Watershed Sediment TMDL

Responsible Permittees: City of Sonoma, County of Sonoma, Sonoma Water

Impaired Water Body: Sonoma Creek

TMDL Implementation Requirements: For City of Sonoma and County of Sonoma:

1. Implementation of Sediment Wasteload Allocation

   The Permittee shall:

   a. Comply with the construction and maintenance requirements in Attachments D or E (as applicable).

   b. Continue to implement actions proposed in its Stormwater Management Plans approved under the 2003 NPDES General Permit (State Water Board Order 2003-0005-DWQ) to attenuate peak flows and durations from new and redevelopment projects. Implementation action requirements are incorporated herein by reference. The Permittee may propose amendments to those Implementation Actions by submitting an updated Stormwater Management Plan to the San Francisco Bay Regional Water Board Executive Office.

2. Implementation of Sediment Wasteload Allocation

   To attain the shared wasteload allocation of 600 tons per year, the Permittee shall leverage opportunities to retrofit and/or reconstruct road crossings to minimize road-related sediment delivery to stream channels. To reduce road-related erosion and protect stream-riparian habitat conditions, the Permittee shall:

   a. Continue to implement best management practices for maintenance of unimproved (dirt and/or gravel) roads,

   b. Document in the Annual Report that the survey of stream-crossings associated with paved public roadways was finalized,

   c. By the effective date of this Order, submit a schedule to implement the retrofit and/or replacement of the following high priority site for consideration of approval by the San Francisco Bay Regional Water Board Executive Officer.

      1) 40 priority ditches, culverts, and crossings to replace, repair, or maintain,

      2) 15 road outfall upgrades to implement, and

      3) 9 road sites in which to implement supplemental erosion control and revegetation.

3. For paved roads, erosion and sediment control actions shall primarily focus on road crossings to meet the sediment load allocation. The Permittee

identified in this section shall attenuate peak flows and durations from all new and redevelopment projects.

TMDL Implementation Requirements for Sonoma Water:

1. The Responsible Permittee shall continue to implement actions as specified in the Storm Water Management Plan approved under the prior 2003 General Permit (State Water Board Order 2003-0005-DWQ). Implementation action requirements are incorporated herein by reference. The Sonoma County Water Agency may propose amendments to those Implementation Actions by submitting an updated Storm Water Management Plan to the San Francisco Bay Regional Water Board Executive Office.
2. Report progress on TMDL implementation measures in each Annual Report.

   Final Compliance Deadline: The TMDL does not specify a final deadline for compliance with the wasteload and load allocation. Therefore, within 6 months of the effective date of this Order, the Permittee shall propose a timeline to attain the allocations in the shortest practicable time, for review and consideration of approval by the San Francisco Bay Water Board Executive Officer.

TMDL Reporting Requirements: Submit TMDL Annual Reports per the requirements in section G2 above. Demonstrate compliance with the wasteload allocations per the TMDL Demonstration of Compliance requirements in the section G2 and in Attachments D or E.

G4.2.11 San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDLs

Responsible Permittees: City of American Canyon, City of Belvedere, City of Benicia, City of Calistoga, City of Larkspur, City of Mill Valley, City of Napa, City of Novato, City of Petaluma, City of San Francisco (Port of San Francisco), City of San Francisco (San Francisco Public Utilities Commission), City of San Rafael, City of Sausalito, City of Sonoma, City of St. Helena, County of Marin, County of Napa, County of Solano, County of Sonoma, Port of Oakland, Town of Corte Madera, Town of Fairfax, Town of Ross, Town of San Anselmo, Town of Tiburon, Town of Yountville, Travis Air Force Base, Sonoma Water

Impaired Water Body: The San Francisco Bay Polychlorinated Biphenyls TMDL identifies all segments of San Francisco Bay as impaired due to elevated levels of polychlorinated biphenyls (PCBs) in sport fish. The San Francisco Bay Mercury TMDL identifies all segments of San Francisco Bay and Suisun Marsh as impaired for mercury.

TMDL Implementation Requirements:

TMDL implementation requirements include 12 major elements as provided below in items 1 through 12.

1. Green Infrastructure Plan

The Permittee shall complete and implement a Green Infrastructure Plan for the inclusion of low impact development drainage design into storm drain infrastructure, including streets, roads, storm drains, parking lots, building roofs, and other storm drain infrastructure elements. It may also provide a mechanism to establish and implement alternative or in-lieu compliance options. The Permittee may adapt other plans required by the Permit to meet this requirement.

a. The Green Infrastructure Plan is intended to serve as an implementation guide and reporting tool during this and subsequent Permit terms to provide reasonable assurance that (1) urban runoff will meet the wasteload allocations the San Francisco Bay Mercury and PCBs TMDLs , and (2) to set goals for reducing, over the long term, the adverse water quality impacts of urbanization and urban runoff on receiving waters.

b. Over the long term, the Green Infrastructure Plan is intended to describe how the Permittees will shift from impervious surfaces and traditional storm drain infrastructure (i.e., gray infrastructure) towards green infrastructure to reduce PCBs and mercury in stormwater runoff. Green infrastructure will also reduce other sediment-bound pollutants.

c. The Plan shall also identify means and methods to prioritize projects in areas of moderate or high PCBs or mercury contamination and projects within each Permittee's jurisdiction, at appropriate geographic and time scales, for implementation of green infrastructure projects. Further, it shall include means and methods to track the area within each Permittee's jurisdiction that is treated by green infrastructure controls and the amount directly connected to impervious area. As appropriate, it shall incorporate by reference plans required elsewhere within this Permit.

d. The Green Infrastructure Plan shall contain the following elements:

   1) A mechanism to prioritize and map areas for potential and planned public and private projects on a drainage-area-specific basis. The mechanism shall include criteria for prioritizing project opportunities that can be incorporated into the Permittee's long-term planning and capital improvement processes (e.g. specific logistical constraints, water quality drivers, opportunities to treat runoff from private parcels in retrofitted street right-of-way). The mechanism shall prioritize implementation over time schedules, which are consistent with the timeframes for assessing load reductions.

2) Outputs from the prioritization and mapping mechanism described above, including, but not limited to, the prioritization criteria, maps, lists, and other information, as appropriate.

3) Targets for the amount of impervious surface, from public and private projects, within the Permittee's jurisdiction to be retrofitted over the following time schedules, which are consistent with the timeframes for assessing load reductions specified above.

4) A process for tracking, mapping, and making publicly available, completed public projects including the amounts treated area and connected impervious area.

5) Standard specifications and, as appropriate, typical design details and related information necessary for the Permittee to incorporate green infrastructure into projects in its jurisdiction. The specifications shall be sufficient to address the different street and project types within a Permittee's jurisdiction, as defined by land use and transportation characteristics.

6) A summary of the planning documents the Permittee has updated or modified to incorporate Green Infrastructure requirements such as: General Plans, Specific Plans, Complete Streets Plans, Active Transportation Plans, Storm Drain Master Plans, Pavement Work Plans, Urban Forestry Plans, Flood Control or Flood Management Plans, and other plans that may affect the future alignment, configuration, or design of impervious surfaces with the Permittee's jurisdiction. Permittees are expected to complete these modifications as part of the Green Infrastructure Plan, and by no later than the end of the permit term.

7) A list of green infrastructure projects, public and private, that are planned for implementation during the permit term and infrastructure projects planned for implementation during the permit term that have potential for green infrastructure measures.

8) A list of policies, ordinances, and/or appropriate legal mechanisms that will be adopted as necessary to ensure implementation of the Green Infrastructure Plan in accordance with the requirements of this provision.

9) A timeline for conducting Outreach and education on the following: (i) Train appropriate staff on the requirements of this provision and methods of implementation; (ii) Educate appropriate Permittee elected officials (e.g. mayors, city council members, county supervisors, district board members) on the requirements of this provision and methods of implementation; (iii) Conduct public

outreach on the requirements of this provision, such as outreach coordinated with adoption or revision of standard specifications and planning documents, and with the initiation and planning of infrastructure projects.

10) Consistent methods to track and report implementation of green infrastructure measures, including treated area and connected and disconnected impervious area on both public and private parcels. The methods shall consider the tracking needed to provide reporting on compliance with the wasteload allocations for the San Francisco Bay Polychlorinated Biphenyls (PCBs) and Mercury TMDL.

2. Manage PCBs-Containing Building Materials and Wastes During Building Demolition Activities so that PCBs Do Not Enter Storm Drains

a. In Year 1 the Permittee shall develop and thereafter implement a protocol for managing PCB-containing building materials with PCBs concentrations of 50 ppm or greater in applicable structures at the time structures are demolished so that PCBs do not enter MS4s. In developing the protocol the Permittee may adapt or use tools developed by the Bay Area Municipal Stormwater Collaborative. The protocol shall include, at a minimum, the following:

1) The necessary authority to ensure that PCBs do not enter MS4s from PCB-containing materials in applicable structures at the time of demolition;

2) A method for identifying applicable structures prior to demolition; and

3) A method(s) for ensuring PCBs are not discharged to the storm drain from demolition of applicable structures.

b. By the start of Year 2, the Permittee shall ensure that construction sites are inspected during demolition and shall obtain verification that materials from demolished buildings are disposed of appropriately. The Permittee shall:

1) Inspect demolition sites with applicable structures containing building materials with PCBs concentrations of 50 ppm or greater pursuant to the Construction Site Stormwater Runoff Program requirements in Order sections D5 or E5. Demolition site inspections shall ensure that effective construction pollutant controls are used to prevent discharge into the MS4.

2) Enhance its construction site control program to minimize migration of PCBs into the MS4 from those structures containing building materials with PCBs concentrations of 50 ppm or greater during demolition activities. Enhancements may include inspecting

demolition sites monthly during demolition activities in the dry season (May-September) and requiring the demolition contractors to sweep the project sites and the streets around the property with street sweepers that will effectively remove sediment and dust.

3) Require demolition contractors to provide official documentation that the building materials with PCBs concentrations of 50 ppm or greater in these demolished applicable structures were disposed appropriately according to state and federal regulations.

c. The Permittee shall implement the protocol for applicable structures within its jurisdiction by the start of Year 2. Applicable structures include commercial, public, institutional and industrial structures constructed or remodeled between the years 1950 and 1980 with building materials with PCBs concentrations of 50 ppm or greater. The Permittee shall:

1) Implement the established protocol prior to authorizing demolition.

2) Require demolition contractors to provide notification to the Permittee, the Regional Water Board, and USEPA at least one week before any demolition is to occur, for demolition of applicable structures containing building materials with PCBs concentrations of 50 ppm or greater approved beginning July 1, 2026.

3) Structures that are constructed or remodeled between the years 1950 and 1980 and require emergency demolition to protect public health and/or safety are exempt from implementing the protocol, but they must be reported in accordance with Provision.

4) Permittees may elect to update for use in the subsequent permit term the assessment methodology and data collection program to quantify PCBs loads reduced through implementation of the protocol for controlling PCBs during demolition of applicable structures.

d. Single-family residential and wood frame structures are exempt from these requirements.

e. A Permittee may seek exemption from this requirement if it provides evidence acceptable to the Executive Officer that the only structures that existed pre-1980 within its jurisdiction were single-family residential and/or wood-frame structures.

3. PCBs and Mercury Source Property Identification, Referral, and Abatement Program

Permittees shall investigate land areas that are likely to contribute PCBs and mercury to MS4s and shall map and rank likely source areas within its jurisdictions.

Upon confirmation of a source property the Permittee shall implement appropriate follow-up measures in conjunction with the Regional Water Board and other appropriate regulatory agencies with investigation and cleanup authorities.

Source property identification will involve investigations of properties located in historically industrial land use or other land use areas where PCBs or mercury was used, released, and/or disposed of and/or where sediment concentrations are significantly elevated above urban background levels (generally areas with sediment concentrations greater than 0.5 milligrams PCBs/kilogram or 0.5 milligrams mercury/kilogram), Permittees shall refer the properties to the Executive Officer of San Francisco Bay Regional Water Board for follow-up.

For each source property referred to the Regional Water Board, Permittees shall take action to abate the discharge of PCBs into its MS4s and/or implement interim enhanced operation and maintenance (enhanced O&M) measures in the street or storm drain infrastructure adjacent to the referred source property or implement a stormwater treatment system downstream of the property. These enhanced O&M measures shall be sufficient to intercept historically deposited contaminated sediment in the vicinity of the source area.

a. Permittees shall implement a systematic investigatory process to identify source properties and determine appropriate next steps for confirmed source areas. The systematic investigatory process shall include the following steps:

    1) By the end of Year 1 map and rank PCBs and Mercury Source Properties by (i) identifying areas that should be considered for source area investigations; and (ii) conducting screening-level investigations using desktop analyses to prioritize these areas as high, moderate, or low-likelihood source areas;

    2) By the end of Year 1 develop a Source Property Investigation Protocol. In developing the protocol, the Permittee may adapt or use tools developed by the Phase I MS4 Permittees regulated under the Municipal Regional Permit (Order R2-2022-0018 as amended);

    3) By the end of Year 1 develop a schedule for investigating and confirming identified Source Property drainages;

4) By the start of Year 2**,** **i**nitiate implementation of the Source Property investigation protocol; and

5) Permittees shall investigate the following acreage of likely source property during the permit term:

a) Sonoma County: 102 acres

b) Marin County: 281 acres

c) Napa County: 147 acres

c) Solano County (non-Phase 1 Permittees): 4 acres

d) San Francisco County: 712 acres

e) Port of Oakland: 170 acres

b. Where a source investigation confirms a property is a source of PCBs or mercury, the Permittee shall either:

1) Take direct action to abate discharges of PCBs or mercury to the MS4s; or

2) Refer that property to the Regional Water Board in a report to facilitate the issuance of orders for further investigation and remediation of the subject property. For each referred property the Permittee shall:

a) Submit a report, subject to the Regional Water Board Executive Officer approval, that includes a description of the enhanced O&M measures (described below) to be implemented at the referred source properties; and

b) Implement, or cause to be implemented, enhanced O&M control measures sufficient to remove historically deposited sediment in the public right-of-way or storm drain infrastructure adjacent to the referred source property or implement a stormwater treatment system downstream of the property. Such measures include:

(i) Higher frequency street sweeping; (ii) Higher frequency drain inlet cleaning, pump station cleaning, or conveyance system cleanout; (iii) Flushing or washing the street with collection and proper disposal of the wash water; (iv) Flushing the storm drainage conveyance system with collection and proper disposal of the flush water; (v) Installation and maintenance of rumble strips or stabilized entrances / exits of source properties to reduce offsite tracking of contaminated sediment; (vi) Installation and maintenance of silt fence, gravel bags, fiber rolls, walls, or other sediment control devices at the edge of the right-of-way to

prevent the contaminated sediment from reaching the MS4; (vii) The installation and maintenance of bioretention facilities on the property or right-of-way to treat stormwater; and (viii) Diversion of dry weather and first flush flows to a publicly owned treatment works or appropriately designed stormwater treatment system.

4. PCBs and Mercury Control Measures for Areas of Moderate or Higher Contamination

The Permittee shall address the moderate or higher levels of contamination that exists now and will remain even as Source Properties are identified and abated or referred for additional action. Mercury: Moderately contaminated areas have mercury sediment concentrations of 0.3 mg/kg; greater concentrations are considered highly contaminated areas. PCBs: Moderately contaminated areas have PCBs sediment concentrations of 0.2 mg/kg and areas with PCBs sediment concentrations of 0.5 mg/kg or more are considered highly contaminated. The Permittee shall:

a. Identify likely areas of moderately or higher contaminated land using desktop geographic information system evaluation or other method.

b. Then develop a schedule to implement or cause to be implemented treatment control measures, stormwater diversion to wastewater treatment facilities, redevelopment with green infrastructure (GSI), or other control measures to achieve PCBs load reductions.

c. Account for load reductions achieved through implementation of controls. The amount of credit will be proportional to the ratio of implemented control measure efficiency relative to the efficiency of treatment controls.

d. Permittees shall develop plans and schedules for implementing control measures in moderately and highly contaminated areas to reduce PCBs and mercury loads and incorporate these plans into the Implementation Plan and Schedule to Achieve TMDL Load Allocations required in Provision K. For each anticipated project the following information shall be included in the Implementation Plan and Schedule:

1) List of ranked areas.

2) Schedule for design and construction of control measures, and status of funding commitment (e.g., added to CIP List).

3) Maps of the areas where control measures are to be implemented.

4) A description of the anticipated design and sizing features for control measures.

5) Documentation demonstrating the likely presence of moderate or high PCBs and/or mercury contamination for the anticipated control measures such as: (i) Reconnaissance information; (ii) Monitoring data; (iii) Information on historic parcel use; (iv) Canine PCBs detection methods; (v) Hazardous materials information from CEQA documents prepared for redevelopment.

e. Permittees shall incorporate the estimated load reductions for implemented and anticipated control measures as part of the Assess PCBs and Mercury Load Reductions from Stormwater report required in Provision J.

5. Program to Control PCBs from Bridges and Overpasses

a. Permittees shall implement a Caltrans specification to manage, as part of bridge or overpass roadway replacement or major repair, potential PCBs-containing material in expansion joints.

b. By the end of Year 1, the Permittee shall develop an inventory of publicly owned bridges in its jurisdictions that includes bridge ownership and a replacement/repair schedule. Beginning in Year 2 the Permittee shall implement or cause to be implemented the Caltrans Standard Operating Procedure (SOP) for Inspecting, Removing and Reporting Materials Containing Polychlorinated Biphenyls (PCBs) Prior to Demolition or Renovation of Structures[7] during applicable replacement activities that are under the direction of the Permittee.

6. Program to Control PCBs from Electrical Utilities

a. Permittees that own electrical utilities or oil-filled electrical equipment shall develop and implement a program to manage PCBs (in oil-filled electrical equipment) in its jurisdiction's program.

b. Permittees that own oil-filled electrical equipment shall develop and implement improved standard operating procedures to address spill response and reporting practices for releases from Permittee owned oil-filled electrical equipment.

c. Permittees that own oil-filled electrical equipment shall document the PCBs loads avoided through the existing and ongoing oil-filled electrical equipment removal and replacement programs.

[7] Caltrans TMDL Compliance Plan, Appendix I Standard Operating Procedure (SOP) for Inspecting, Removing and Reporting Materials Containing Polychlorinated Biphenyls (PCBs) Prior to Demolition or Renovation of Structures.

7. Mercury Collection and Recycling Programs

a. Permittees shall promote, facilitate, and/or participate in collection and recycling of mercury containing consumer products, devices, and equipment (e.g., thermometers, thermostats, switches, bulbs). Mercury is found in a wide variety of consumer products (e.g., fluorescent bulbs, thermostats, thermometers) that are subject to recycling requirements. These recycling efforts are already happening throughout the Small MS4 program area, the Permittee shall continue to promote, facilitate and/or participate in these recycling efforts to increase effectiveness and public participation.

b. Permittees shall promote recycling of mercury-containing products and make efforts to increase effectiveness of these recycling efforts throughout the region.

8. PCBs and Mercury Risk Reduction Program

a. The Permittees shall conduct or participate in an ongoing risk reduction program to address public health impacts of mercury and PCBs in San Francisco Bay.[8] The fish risk reduction program shall take actions to reduce actual and potential health risks in those people and communities most likely to consume San Francisco Bay-caught fish, such as subsistence anglers and its families. Permittees should work with local health departments, the Bay Area Clean Water Agencies, and the Western States Petroleum Association to leverage resources for this program and to appropriately target at-risk populations.

b. At a minimum, Permittees shall conduct or cause to be conducted an ongoing risk reduction program with the potential to reach at least 300 individuals annually who are likely consumers of San Francisco Bay-caught fish. Permittees are encouraged to collaborate with San Francisco Bay industrial and wastewater discharger agencies in meeting this requirement. Permittees shall evaluate the effectiveness of its risk reduction program in the 2030 Annual Report.

9. PCBs and Mercury TMDL Monitoring Program

a. Permittees shall conduct monitoring to assess inputs of PCBs and mercury to the Bay from local tributaries and urban runoff, provide

[8] The risk reduction framework developed by municipalities (e.g., Contra Costa Clean Water Program) covered by the San Francisco Bay Municipal Regional Permit (Order No. R2-2022-0018) under its previous Permit (Citation for MRP 2), which funded community-based organizations to develop and deliver appropriate communications to appropriately targeted individuals and communities, is an appropriate approach.

information to assess compliance with receiving water limitations, support implementation of pollutant controls, assess progress toward achieving wasteload allocations for TMDLs and help resolve uncertainties associated with loading estimates and impairments associated with PCBs and Mercury.

Monitoring in this provision must be directed toward addressing the following five priority pollutant management information needs (Table G4.2.11):

Table G4.2.11. Monitoring Types and Information Needs

Type	Information Need	Monitoring Methods
1	Identify Source Areas	• Collection and analysis of pollutants on sediments in urban stormwater runoff that are transported through MS4s or receiving waters during stormwater runoff events; or • Collection and analysis of pollutants on bedded sediments deposited in MS4s or receiving waters; or • Collection and analysis of pollutants in stormwater runoff or bedded sediments on source area properties (e.g. private property); or • Other monitoring methods designed to identify specific sources or uses of pollutants (e.g., caulk in roadways or building materials) or watershed source areas.
2	Identify watershed areas contributing most to Bay impairment	• Methods described for Monitoring Type #1; or Collection and chemical analysis of small fish tissue (or other relevant indicator) near tributary confluences with the Bay; or • Collection of bedded sediments near tributary confluences with the Bay and analysis for pollutants.
3	Provide support for future or existing management action	• Methods described for Monitoring Type #1, with a focus on monitoring the effectiveness of specific management actions in reducing; or • Avoiding pollutants in MS4 discharges.
4	Provide information on pollutant loads, concentrations, or presence / absence	• Methods described for Monitoring Type #1, in combination with quantitative modeling associated with quantifying pollutant loads from MS4s or small tributaries to the Bay.
5	Evaluate Trends	• Methods described for Monitoring Type #1 or #2.

b. Permittees may satisfy Monitoring Type 1 requirements through individual jurisdiction level or joint-Permittee level monitoring associated with Items 3 and 4, identification of source properties and/or identification of high and moderate areas of contamination.

Permittees may satisfy the Monitoring Types 2-5 requirements by contributing its fair share financially on an annual basis to the San Francisco Bay Regional Monitoring Program.

Permittees opting not to participate in the San Francisco Bay Regional Monitoring Program must individually or collectively through a cooperative joint program implement monitoring to satisfy the requirements for Monitoring Types 2-5 requirements by developing and conducting the monitoring described in item 2 below.

c. In Year 2 Permittees shall initiate Monitoring Type 1 in conjunction with its Source Property Investigation Protocol Implementation.

d. In Year 2 Permittees opting to participate in the San Francisco Bay Regional Monitoring Program to satisfy its Monitoring Types 2-5 requirements shall begin contributions.

e. Permittees opting to not to participate in the San Francisco Bay Regional Monitoring Program to satisfy its monitoring Types 2-5 requirements shall initiate the monitoring program described below.

   1) In Year 2 the Permittees shall develop a Monitoring Program and Quality Assurance Project Plan (QAPP). In Year 3 the Permittee shall initiate monitoring. The Permittee shall implement or cause to be implemented the monitoring components listed below to address the management information needs listed. Permittees shall conduct monitoring consistent with the monitoring intensity and frequency specified in Table G4.2.12 that describes PCBs and mercury monitoring effort for monitoring types b-f. Monitoring frequencies are described as the total annual of number of samples that Permittees working collectively within a given county area or working individually shall collect and analyze. Annual sampling shall be based on the Water Year (October 1 – September 30).

   2) Minimum number of samples that Permittees within a countywide Stormwater Program shall collect by the end of a 5-year term to address each monitoring type are also specified. Samples shall be analyzed for parameters listed in Table G4.2.13 Pollutant of Concern Analytes and Analytical Methods. Where no laboratory method is listed in the Monitoring Parameters, Effort and Type Table, Permittees shall use USEPA or SWAMP-approved methods.

Table G4.2.12. Monitoring Parameters and Annual Effort

Permittee	Minimum Type 1 Sampling Events collected by Year 3	Total PCBs Sampling Events During Permit Term and Annual Minimum (a)	Total Annual Mercury Sampling Events During Permit Term and Annual Minimum (a)
Alameda County Permittee			
Port of Oakland	5	Individually 2	Individually 1
Marin County Permittees	**Collectively 28**	**Collectively 14 (Annual Minimum 1)**	**Collectively 11 (Annual Minimum 1)**
Belvedere	Individually 2	Individually 1	Individually 1
Corte Madera	Individually 4	Individually 2	Individually 2
Fairfax	Individually 4	Individually 2	Individually 2
Larkspur	Individually 4	Individually 2	Individually 2
Marin County	Individually 4	Individually 2	Individually 2
Mill Valley	Individually 4	Individually 2	Individually 2
Novato	Individually 4	Individually 2	Individually 2
Ross	Individually 2	Individually 1	Individually 1
San Anselmo	Individually 4	Individually 2	Individually 2
San Rafael	Individually 4	Individually 2	Individually 2
Sausalito	Individually 4	Individually 2	Individually 2
Tiburon	Individually 4	Individually 2	Individually 2
Napa County Permittees	**Collectively 16**	**Collectively 8 (Annual Minimum 1)**	**Collectively 6 (Annual Minimum 1)**
American Canyon	Individually 4	Individually 2	Individually 1
Calistoga	Individually 2	Individually 1	Individually 1
Napa	Individually 4	Individually 2	Individually 1
Napa County	Individually 4	Individually 2	Individually 1
St Helena	Individually 2	Individually 1	Individually 1
Yountville	Individually 2	Individually 1	Individually 1
San Francisco County Permittees			
SFPUC	Individually 2	Individually 1	Individually 1

Permittee	Minimum Type 1 Sampling Events collected by Year 3	Total PCBs Sampling Events During Permit Term and Annual Minimum (a)	Total Annual Mercury Sampling Events During Permit Term and Annual Minimum (a)
Port of San Francisco	Individually 4	Individually 2	Individually 1
Solano County Permittees	**Collectively 6**	**Collectively 5**	**Collectively 3**
Benicia	Individually 4	Individually 2	Individually 1
Solano County	Individually 2	Individually 2	Individually 1
Travis Airforce Base	Individually 3	Individually 2	Individually 1
Sonoma County Permittees	**Collectively 10 (Annual Minimum 2)**	**Collectively 5**	**Collectively 5**
Petaluma	Individually 4	Individually 2	Individually 2
Sonoma	Individually 4	Individually 2	Individually 2
Sonoma County	Individually 4	Individually 2	Individually 2

Table Notes

(a) This column indicates the total number of samples, across monitoring 2-5, that must be collected during the five-year Permit term. The Annual Minimum, in parentheses, indicates the minimum number of samples that must be collected for the applicable monitoring types during each year of the five-year Permit term. Annual minimums only apply to collective sampling programs. It is possible that data can satisfy multiple monitoring types. However, the intent of the Permit is to achieve a distribution of monitoring effort across all applicable monitoring information needs.

Table G4.2.13 Pollutant of Concern Analytes and Analytical Methods

Pollutant of Concern Sampling Event	Matrix	Analyte (a)	Laboratory Analytical Methods
PCBs	Water	Total PCBs	USEPA 1668 (RMP 40)
		Total Organic Carbon (TOC)	SM5310B
		Suspended Sediment Concentration (SSC)	ASTM D3977-97
	Bedded Sediment (if applicable)	Total PCBs	As appropriate to address the management information need: USEPA 1668 (RMP 40), 8082A, or 8270D modified by Method 1625

Pollutant of Concern Sampling Event	Matrix	Analyte [a]	Laboratory Analytical Methods
		TOC	USEPA 9060
Mercury	Water	Total Mercury	USEPA 1631 Rev E
	Bedded Sediment (if applicable)	Total Mercury	USEPA 7473

Table Notes

[a] TOC data are not used independently. Rather, TOC can be useful for normalizing PCBs data collected in water and sediment. TOC shall be collected concurrently with PCBs data that should be normalized to TOC. Similarly, SSC samples should be collected and analyzed when water samples are collected that will be used to assess loads, loading trends, or BMP effectiveness for PCBs.

10. Assess PCBs and Mercury Load Reductions from Stormwater

a. The Permittees shall implement an assessment methodology and data collection program to quantify, in a technically sound manner, PCBs and mercury loads reduced through the implementation of control programs required in this section and other measures taken as part of the provisions of the Permit. In developing the methodology, the Permittees may adapt or use systems developed for the Municipal Regional Permit (Order No. R2-2022-0018). This accounting system describes calculation methodologies, data requirements, and parameters used to quantify the load reduction for each type of control measure. The Permittees shall use the assessment methodology to demonstrate the load reductions achieved during this Permit term as well as progress toward achieving the program area PCBs and mercury TMDL wasteload allocations. The Permittees may update this assessment methodology if necessary for use in subsequent years and permit terms.

b. The Permittees shall quantify the PCBs and mercury load reductions achieved through all the pollution prevention, source control, green stormwater infrastructure, and other treatment control measures implemented during this permit term as described in G4.2.11 Items 1 through 7, and other provisions of the Permit. The Permittee-specific portion of the regionwide PCBs and mercury load reduction estimate shall be based on the proportion of county population in each municipality.

11. Prepare Implementation Plan and Schedule to Achieve TMDL Load Allocations

a. The Permittee shall provide accounting of the load reductions that will be achieved over time. The detailed implementation plan prepared for this

requirement will be used to inform permit requirements for the subsequent permit term using the load assessment methodology described above in section G4.2.11 Item 10.

b. The Permittee shall prepare a long-term implementation plan. The plan must:

1) Identify all technically and economically feasible PCBs and mercury control measures to be implemented (including GSI projects);

2) Include a schedule according to which these technically and economically feasible control measures will be fully implemented;

3) Provide an evaluation and quantification of the PCBs and mercury load reduction of such measures as well as an evaluation of costs, control measure efficiency, and significant environmental impacts resulting from its implementation;

4) Identify all specific control measures implemented during the current permit term and any additional control measures to be implemented in the subsequent permit term;

5) Describe the intensity or extent of control measure implementation;

6) Identify accountability metrics to track during the subsequent permit; and

7) Provide estimates for load reductions to be achieved through implementation of control measures during the subsequent permit at the proposed intensities.

12. Reporting – Permittees shall report on the following:

a. Green Infrastructure Planning - In the Year 5 Annual Report the Permittee shall submit its completed Green Infrastructure Plan.

b. Demolition Protocol Development and Implementation

1) Permittees seeking exemption from the requirements of G4.2.11 Item 2 based on lack of applicable structures must submit in its Year 1 Annual Report; documentation, such as historic maps or other historic records, that clearly demonstrates that the only structures that existed pre-1980 were single-family residential and/or wood-frame structures;

2) Permittees subject to G4.2.11 Item 2 shall provide documentation demonstrating development of the protocol or identifying protocol to be used with its Year 1 Annual Report;

3) Permittees subject to G4.2.11 Item 2 shall provide documentation of each of the following items beginning with its Year 2 Annual Report and thereafter:

   i. The number of applicable structures that applied for a demolition permit during that reporting year;

   ii. A running list of the applicable structures that applied for a demolition permit that had materials(s) with PCBs at 50 ppm or greater, with the address, and demolition date, brief description of the PCBs-containing materials; and brief description or citation of PCB control methods used at each site; and

   iii. For each applicable structure that requires emergency demolition to protect public health and/or safety, provide the following: address, date building was constructed, and date of demolition.

c. PCBs and Mercury Source Property Identification, Referral and Abatement Program

   1) In the Year 1 Annual Report, each Permittee shall submit its ranked list of likely source properties, acreage of those lands properties, and map delineating those areas and associated drainages.

   2) In the Year 2 Annual Report, each Permittee shall submit its investigation protocol and schedule.

   3) In the Year 3 Annual Report and thereafter, the Permittees shall provide a list or table of source properties with the following information:

      i. Current status of source properties (in process / investigated / confirmed / referred / abated / no risk);

      ii. Estimated area of abated source properties;

      iii. Estimated area of referred source properties;

      iv. Estimated area of confirmed source properties;

      v. Enhanced O&M measures implemented for each referred source property;

      vi. Estimated load reduction potential for confirmed source properties;

      vii. Estimated load reduction for abated source properties.

d. Control Measure Implementation in Areas of Moderate Contamination

   1) Permittees shall submit the plans and schedules for implementing control measures in moderately and highly contaminated areas to

reduce PCBs and mercury loads with its Implementation Plan and Schedule to Achieve TMDL Load Allocations required in G4.2.11 Item 11, above.

2) Permittees shall submit the submit documentation demonstrating the area has moderate or high PCBs and/or mercury contamination and estimating the load reductions with the Year 5 Annual Report.

e. Program to Control PCBs from Bridges and Overpasses

1) In the Year 1 Annual Report Permittees shall submit an inventory of bridges in the program area that includes bridge ownership and the bridge roadway replacement schedule.

2) Beginning with the Year 1 Annual Report Permittees shall submit in each annual report documentation confirming the use of the Caltrans specification during all instances of bridge roadway replacement or repair in its jurisdiction during that reporting year and provide an estimate of the volume of material managed and total PCBs mass load reduced resulting from implementation of the specification.

3) In the 2030 Annual Report – Permittees shall report an estimate of the total PCBs mass load reduced, consistent with approved accounting procedures, resulting from implementing this control measure.

f. Program to Control PCBs from Permittee Owned Electrical Utilities

1) Permittees shall report in their Year 1 Annual Report whether they operate a Permittee-owned electrical utility or Permittee-owned oil-filled electrical equipment.

2) Permittees subject to G4.2.11 Item 6 shall submit in its Year 2 Annual Report a description of the improved spill response practices implemented by Permittee-owned electrical utilities.

g. Mercury Collection and Recycling Programs

1) Beginning in the Year 2 Annual Report, Permittees shall report on efforts to promote recycling of mercury-containing products in accordance with Attachment D, section D2 and Attachment E, section E2.

h. PCBs and Mercury Risk Reduction

1) The Permittees shall report on the status of the risk reduction program in each of its Annual Reports, including a brief description of actions taken, an estimate of the number of people reached, and why these people are deemed likely to consume Bay fish. The Permittees

shall report the findings of the effectiveness evaluation of its risk reduction program in its 2029 Annual Report.

i. PCBs and Mercury TMDL Monitoring Program

1) Monitoring reports submitted shall be clear, concise, and well organized. They shall include the following information:

i) An executive summary;

ii) Quality Assurance/Quality Control summaries for sample collection and analytical methods, including a discussion of any limitations of the data;

iii) Brief descriptions of sampling protocols and analytical methods;

iv) Sample location description, including water body name and segment as well as latitude and longitude coordinates;

v) Sample ID, collection date (and time if relevant), media (e.g., water, filtered water, bed sediment, tissue);

vi) Concentrations detected, measurement units, and detection limits;

vii) Assessment, analysis, and interpretation of the data for each monitoring program component;

viii) A listing of volunteer and other non-Permittee entities whose data are included in the report;

ix) Assessment of compliance with applicable water quality standards; and

x) Methods, data, calculations, load estimates, and source estimates for each pollutant, as applicable.

2) Permittees shall submit to the California Environmental Data Exchange Network (CEDEN) all monitoring results conducted pursuant to section G4.2.11 item 9.

i) Data shall be submitted in SWAMP formats and with the quality controls required by CEDEN.

ii) Data collected during the previous October 1 – September 30 period shall be submitted by March 31 of each year.

3) The Permittees shall submit a report describing the allocation of sampling effort for monitoring for the forthcoming year (i.e., the water year that began October 1 of that year) and what was accomplished for monitoring during the preceding water year. The report shall

include: monitoring locations, number and types of samples collected, management question addressed, and analytes measured.

4) In the Year 5 Annual Report, Permittees shall submit a comprehensive report that contains the following:

   i) A comprehensive analysis of all data collected pursuant to section G4.2.11 Item 9;

   ii) Methods, data, calculations, load estimates, and source estimates for each parameter, as applicable;

   iii) With cause and justification, recommendations for changes to the monitoring requirements for this permit element in future Permit terms.

j. Load Reductions

   1) In the 2030 Annual Report, Permittees shall report the total loads reduced using the assessment methodologies described and cited in the Fact Sheet to demonstrate cumulative PCBs load reduced from each control measure implemented since the beginning of the Permit term. This report shall also include an estimate of load reductions from control measures taking place after the 2030 Annual Report submittal but before the end of the permit term. Permittees shall submit all supporting data and information necessary to substantiate the load reduction estimates.

k. Long Term Implementation Plan and Schedule

   1) Permittees shall submit the plan and schedule with the 2030 Annual report.

G4.3 CENTRAL COAST WATER BOARD

This Order implements TMDLs for the Central Coast Water Board, which includes TMDLs for pathogens, fecal coliform and indicator bacteria, sediment, nitrate-nitrogen, nitrogen compounds and orthophosphate, and pesticides. The Permittees are identified for each TMDL, along with the pollutant and impaired water bodies (together the waterbody-pollutant combination), implementation requirements, final deadlines, and reporting requirements.

On or before the deadline to comply with a TMDLs final wasteload allocation, the Permittee shall submit its TMDL Demonstration of Compliance Report required by G2, above. If the Permittee needs additional time, it may seek a time schedule order, as described in G2, above.

Those specific Permittees that are identified below as requiring a Wasteload Allocation Attainment Plan shall develop and implement a Wasteload Allocation Attainment Program for each catchment[9] within the Permittee's jurisdiction that discharges to a TMDL waterbody. The Permittee may select different best management practices for different catchments.

The Wasteload Allocation Attainment Plan shall address each TMDL waterbody-pollutant combination identified below. Where applicable, the Permittee shall identify and demonstrate compliance with waste allocations. The Permittee shall identify and address all areas within the Permittee's jurisdiction that discharge to a receiving water with a TMDL. The Permittee may use its catchments identified in its Program Effectiveness Assessment and Improvement Plan (submitted under the previous permit) or alternative catchment delineations.

G4.3.1 Central Coast Water Board - Wasteload Allocation Attainment Plan

The Permittees identified below shall develop and implement a Wasteload Allocation Attainment Plan that identifies the actions it will take to comply with the TMDLs. The Central Coast Water Board recommends early and on-going interaction with the Central Coast Water Board staff to determine appropriate level of detail and scope of analyses necessary for Wasteload Allocation Attainment Plans for a particular TMDL

The Wasteload Allocation Attainment Plan shall include the following components:

[9] An area of land where water collects when it rains, often bounded by hills.

1. Strategy – The Permittee shall develop a strategy and actions to guide selection, assessment, and implementation of best management practices that, when implemented, will effectively abate pollutant sources, reduce pollutant discharges, and achieve wasteload allocations according to the TMDL compliance schedule.
2. Source Analysis – The Permittee shall conduct a source analysis including the following:
    a. Identification of sources of the impairment within the Permittee's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction, and
    b. Prioritization of sources within the Permittee's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors.
3. Selection and Implementation of Best Management Practices – The Permittee shall develop a control measure assessment and implementation plan including the following:
    a. Identification of best management practices that will address the sources and reduce the discharge of the TMDL pollutants.
    b. Prioritization of best management practices based on expected effectiveness at abating sources, reducing impairing pollutant discharges, and other pertinent factors.
    c. Selection of best management practices to be implemented, as determined, including a detailed implementation schedule. For each best management practice, identify milestones the Permittee will use for tracking implementation, measurable goals that the Permittee will use to assess implementation efforts, and measures and targets the Permittee will use to assess effectiveness.
    d. The Permittee shall include a schedule of expected best management practices implementation for future implementation years, with the understanding that future best management practices implementation plans may change as new information is obtained.
4. Quantitative Numeric Analysis – The Permittee shall conduct a Quantitative Numeric Analysis that demonstrates best management practices, when implemented, will result in compliance with wasteload allocations for all TMDL pollutants or for the limiting pollutant. The Quantitative Numeric Analysis shall include the following:
    a. A catchment delineation and pollutant loading analysis shall identify relative pollutant load contribution of each catchment within the Permittee's jurisdiction.

b. Prioritization of catchments and sources based on suspected contribution to the impairment, ability to control the source, and other pertinent factors.

c. A quantifiable Quantitative Numeric Analysis that uses published best management practices pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate the selected best management practices will achieve, with reasonable assurance, the Permittee's wasteload allocation by the TMDL compliance schedule.

5. Monitoring Program – The Permittee's monitoring program shall include a detailed description and schedule sufficient to assess discharge and receiving water quality, effectiveness of implemented best management practice, progress towards interim targets, and ultimate compliance with the wasteload allocations. The monitoring program shall be designed to validate implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations.

The Permittee may propose *E. coli* monitoring in lieu of fecal coliform monitoring. Sampling shall be at least five samples distributed over a six-week period. The six-week rolling geometric mean of *E. coli* shall not exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a month.

6. Schedule – The Permittee shall propose a schedule that complies with interim targets and final water quality-based effluent limitations according to compliance schedules included in the Fact Sheet. If the dates have passed and TMDLs have not been attained, then the Permittee may request a time schedule order as specified in G2, above. The Wasteload Allocation Attainment Plan schedule must be updated to be consistent with any time schedule order.

   a. If the Permittee-established interim target due dates during the 2013 permit term have passed and have not been attained, then the Permittee shall revise its interim targets (and dates when stormwater discharge conditions will be evaluated). If the TMDL does not include interim targets and the Permittee did not establish targets during the previous permit term, then the Permittee shall establish interim targets. The Permittee shall space interim targets equally over the TMDL compliance schedule and shall represent measurable, continually decreasing discharge concentrations or other appropriate interim measures of pollution reduction and progress towards compliance with the wasteload allocation.

   b. The Permittee must include at least one interim target and date during the first five years commencing on this Order's adoption date. The

Permittee shall achieve its interim targets by the date specified in its Wasteload Allocation Attainment Plan. If the Permittee does not achieve its interim target by the date specified, the Permittee shall develop and implement best management practices that it can quantitatively demonstrate will achieve the next interim target.

7. Effectiveness Assessment and Adaptive Management – The Permittee shall document program modifications based on its effectiveness evaluations that shall include the following information:
   a. A detailed description of how the Permittee will assess best management practices and program effectiveness.
   b. A detailed description of how the Permittee will modify its program to improve best management practices determined to be ineffective during the effectiveness assessment.
   c. A detailed description of information the Permittee will include in annual reports in accordance with Section G2.1 of this attachment to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule.
8. Collaboration with Other Agencies – The Permittee shall include a detailed description of how it will collaborate with other agencies, stakeholders, and the public to develop and implement its Wasteload Allocation Attainment Plan.
9. Other – The Permittee shall address any other items identified in the Integrated Report Fact Sheet, TMDL Project Reports, TMDL Resolutions, or other items currently being implemented by the Permittee to control its contribution to the TMDL wasteload.
10. Long-Term Assurance – Once the Permittee has demonstrated full wasteload allocation attainment at a catchment scale, the Permittee shall update the Wasteload Allocation Attainment Plan to document a long-term assurance approach to ensure the Permittee's wasteload reduction strategies/projects will continue to function, according to intended design objectives, in perpetuity. The Permittee shall implement the documented long-term assurance approach and make modifications as necessary to maintain compliance with wasteload allocations. The Permittee shall assess whether its Watershed Asset Management Program can serve the purpose of this requirement.
11. Wasteload Allocation Attainment Plan Submittal, Approval, Commencement, and Revision Process
    a. Submittal and Approval – By the end of Year 1, the Permittee shall submit a complete Wasteload Allocation Attainment Plan to the Central

Coast Water Board Executive Officer for review and approval. The Wasteload Allocation Attainment Plan shall include a list of waterbody-pollutant combinations with TMDLs within the Permittee's jurisdiction. Portions of Wasteload Allocation Attainment Plan addressing TMDLs that have been added to the Order for the first time during this permit term must be submitted by Year 2. The Central Coast Water Board will provide a minimum 30-day public review period for initial Wasteload Allocation Attainment Plans and updated Wasteload Allocation Attainment Plans.

b. Implementation Commencement – The Permittee shall commence implementation of its Wasteload Allocation Attainment Plan after Central Coast Water Board Executive Officer approval (or as otherwise specified in approval). The Permittee shall maintain a current Wasteload Allocation Attainment Plan in SMARTS.

c. Repeat Quantitative Numeric Analyses – The Permittee shall conduct repeat quantitative numeric analysis as the best management practice implementation plans evolve and information on best management practice effectiveness is generated. Once the Permittee has water quality data from its monitoring program, the Permittee shall incorporate water quality data into the numeric analyses to validate best management practice implementation plans.

d. Revisions – The Permittee shall notify the Central Coast Water Board Executive Officer of any subsequent proposed Wasteload Allocation Attainment Plan revisions. If the Permittee proposes substantive changes, the Central Coast Water Board will provide a minimum 30-day public review period prior to approval of a modified Wasteload Allocation Attainment Plan.

12. Progress Tracking and Reporting

To show progress towards attaining the wasteload allocations and interim targets, the Permittee shall develop a process for tracking development and implementation of the Wasteload Allocation Attainment Plan and shall describe in the annual reports of the Wasteload Allocation Attainment Plan development and implementation actions taken for the previous reporting year. The Permittee shall make the information publicly available. The annual reporting shall include the following at a minimum:

a. A description of actions taken to develop and implement best management practices per requirements this Order's Wasteload Allocation Attainment Plan.

b. A description of actions planned for the upcoming reporting year to develop and implement best management practices.

c. A description of all implemented best management practices, including respective treated area and connected impervious area.

d. A map showing the location of each planned and implemented best management practice, with respective treated area and connected impervious area.

e. An analysis of documented and estimated wasteload removal, summarized by catchment, detailing progress towards attaining interim targets and final wasteload allocations.

f. A discussion of any deviations from the submitted Wasteload Allocation Attainment Plan, including rationale for those deviations, and, if necessary, a description of how the Permittee will compensate for any noted shortfalls in expected wasteload reductions.

G4.3.2 TMDL for Pathogens in Morro Bay and Chorro and Los Osos Creeks

Responsible Permittees: City of Morro Bay, County of San Luis Obispo, Los Osos Community Services District

Impaired Water Bodies: Chorro Creek, Los Osos Creek, Morro Bay, Pennington Creek

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final deadline to meet the wasteload allocations was November 19, 2013.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.3 TMDL for Pathogens in Watsonville Slough

Responsible Permittees: City of Watsonville, County of Santa Cruz

Impaired Water Bodies: Gallighan Slough, Hanson Slough, Harkins Slough, Struve Slough, Watsonville Slough

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all

information required under section G4.3.1. The Permittee is required to implement best management practices specifically targeting fecal coliform loading. Required actions include development and implementation of:

1. Public education regarding fecal coliform sources and associated health risk,
2. Enforceable means of addressing pet waste and wild animals that are attracted to stormwater infrastructure, and
3. Elimination of illicit discharges.

The Permittee must also monitor receiving water and stormwater outfalls that may be contributing fecal coliform to the sloughs.

Final Compliance Deadline: The final compliance deadline was November 20, 2016.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.4 TMDL for Fecal Coliform in the Pajaro River Watershed

Responsible Permittees: City of Gilroy, City of Hollister, City of Morgan Hill, City of Watsonville, County of Monterey, County of Santa Clara, County of Santa Cruz

Impaired Water Bodies: Bird Creek, Carnadero/Uvas Creek, Furlong (Jones) Creek, Llagas Creek, Pajaro River, Miller's Canal, Pachecho Creek, Pescadero Creek, San Benito River, San Juan Creek, Santa Ana Creek, Tequesquita Slough, Tres Pinos Creek

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: All wasteload allocations were required to be achieved by July 12, 2023.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.5 TMDL for Sediment in Morro Bay

Responsible Permittee: County of San Luis Obispo

Impaired Water Bodies: Chorro Creek, Dairy Creek, Los Osos Creek, Morro Bay, Pennington Creek, Warden Creek

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final compliance deadline is December 3, 2053.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.6 TMDL for Sediment in the San Lorenzo River

Responsible Permittees: City of Santa Cruz, City of Scotts Valley, County of Santa Cruz

Impaired Water Bodies: Carbonera Creek, Lompico Creek, San Lorenzo River, Shingle Mill Creek

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Plan shall include all information required under section G4.3.1.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.7 TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River

Responsible Permittees: City of Gilroy, City of Hollister, City of Morgan Hill, City of Watsonville, Santa Cruz County Fairgrounds

Impaired Water Bodies: Corralitos Creek (including Rider Creek), Llagas Creek, Mouth of Pajaro River, Tres Pinos, San Benito River, Upper Pajaro River, Uvas Creek

TMDL Implementation Requirements: The Permittee shall implement the practices specified in this Order, tailored to focus on reduction of sediment discharges to the affected waterbodies, to ensure attainment of the wasteload allocations. Submittal of a Wasteload Allocation Attainment Plan is not needed because compliance with this Order in the watershed constitutes TMDL Compliance.

Final Compliance Deadline: The final compliance deadline to achieve the numeric targets is November 27, 2051.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2, above, including TMDL Demonstration of Compliance Report.

TMDL Annual Reports shall outline best management practices implemented to ensure ongoing attainment of the Permittee's allocation.

G4.3.8 TMDL for Pathogens in San Luis Obispo Creek

Responsible Permittees: California Polytechnic State University, San Luis Obispo; City of San Luis Obispo; County of San Luis Obispo,

Impaired Water Bodies: Brizziolari Creek, San Luis Obispo Creek, Stenner Creek

TMDL Implementation Requirements: The Permittee shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1. The Permittees identified in the TMDL for Pathogens in San Luis Obispo Creek are required to implement best management practices specifically targeting fecal coliform loading. Submittal of a Wasteload Allocation Attainment Plan is not required because compliance with this Order in the watershed constitutes TMDL compliance. Required actions include development and implementation of:

1. Public education regarding fecal coliform sources and associated health risk,
2. Enforceable means of addressing pet waste and wild animals that are attracted to stormwater infrastructure, and
3. Elimination of illicit discharges.

Final Compliance Deadline: The final compliance deadline was during or before the year 2012. Therefore, compliance with the wasteload allocation is required immediately.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2, above. TMDL Annual Reports shall outline best management practices implemented to ensure ongoing attainment of its allocation. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.9 TMDLs for Nitrate-Nitrogen in San Luis Obispo Creek

Responsible Permittees: California Polytechnic State University, San Luis Obispo; City of San Luis Obispo; County of San Luis Obispo

Impaired Water Body: San Luis Obispo Creek

TMDL Implementation Requirements: The Permittee shall continue to implement best management practices that specifically address the reduction or elimination of nutrient loading. Submittal of a Wasteload Allocation Attainment Plan is not required because compliance with this Order constitutes compliance with the TMDL.

Final Compliance Deadline: The final compliance deadline was during or before the year 2012.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2, above. TMDL Annual Reports shall outline best management practices implemented to ensure ongoing attainment of its allocation. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.10 TMDL for Fecal Coliform in Corralitos and Salsipuedes Creeks

Responsible Permittees: City of Watsonville, County of Santa Cruz, Santa Cruz County Fairgrounds

Impaired Water Bodies: Corralitos Creek, Salsipuedes Creek

TMDL Implementation Requirements: The Permittee identified for the TMDL for Fecal Coliform in Corralitos and Salsipuedes Creeks shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions it will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include the information required in section G4.3.1.

Final Compliance Deadline**:** The final compliance deadline to achieve wasteload allocations was September 8, 2024.

TMDL Reporting Requirements: The Permittee shall submit reports as specified in sections G2 and G4.3.1, above.

G4.3.11 TMDL for Fecal Coliform in Lower Salinas River Watershed

Responsible Permittee: County of Monterey

Impaired Water Bodies: Alisal Creek, Gabilan Creek, Lower Salinas River, Natividad Creek, Old Salinas River, Old Salinas River Estuary, Salinas Reclamation Canal, Salinas River Lagoon (North), Santa Rita Creek, Tembladero Slough

TMDL Implementation Requirements: The Permittee identified for the TMDL for Fecal Coliform in Lower Salinas River Watershed shall develop and implement a Wasteload Allocation Attainment Plan that identifies the actions it will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include the information required under section G4.3.1.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.12 TMDL for Pathogens in San Lorenzo Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek

Responsible Permittees: City of Santa Cruz, City of Scotts Valley, County of Santa Cruz

Impaired Water Bodies: Branciforte Creek, Camp Evers Creek, Carbonera Creek, Lompico Creek, San Lorenzo River Estuary, San Lorenzo River

TMDL Implementation Requirements: The Permittees identified for the TMDL for Pathogens in San Lorenzo Estuary and River shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all the information required per section G4.3.1.

Final Compliance Deadline: The final compliance deadline was June 6, 2024.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.13 TMDL for Pathogens in Soquel Lagoon, Soquel Creek, and Noble Gulch

Responsible Permittees: City of Capitola, County of Santa Cruz

Impaired Water Bodies: Noble Gulch, Soquel Creek, Soquel Lagoon

TMDL Implementation Requirements: The Permittee identified for the TMDLs for Pathogens in Soquel Lagoon, Soquel Creek, and Noble Gulch shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all the information required under section G4.3.1.

Final Compliance Deadline**:** The final compliance deadline was September 15, 2023.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2, above.

G4.3.14 TMDL for Pathogens in Aptos Creek, Valencia Creek, and Trout Creek

Responsible Permittee: County of Santa Cruz

Impaired Water Bodies: Aptos Creek, Trout Gulch, Valencia Creek

TMDL Implementation Requirements: The Permittee identified for the TMDL for Pathogens in Aptos Creek, Valencia Creek, and Trout Creek shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: Wasteload allocations were required to be achieved October 29, 2023.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.15 TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed

Responsible Permittees: City of Guadalupe, City of Santa Maria, County of San Luis Obispo, County of Santa Barbara

Impaired Water Bodies: Water Bodies in the Santa Maria River Watershed, including: Blosser Channel, Bradley Channel, Main Street Canal, Nipomo Creek, Orcutt Creek, Santa Maria River.

TMDL Implementation Requirements: The Permittee identified for the TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final compliance deadline is February 21, 2028.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.16 TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds and Tributaries to Oso Flaco Lake

Responsible Permittees: City of Guadalupe, City of Santa Maria, County of San Luis Obispo, County of Santa Barbara

Impaired Water Bodies: Water Bodies in the Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake, including: Blosser Channel, Bradley Channel, Greene Valley Creek, Main Street Canal, Nipomo Creek, North Main Street Channel, Orcutt Creek, Santa Maria River.

TMDL Implementation Requirements: The Permittees identified for the TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The compliance date for achieving the final wasteload allocations is May 17, 2044.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.17 TMDL for Nitrogen Compounds and Orthophosphate in the Lower Salinas River Watersheds

Responsible Permittee: County of Monterey

Impaired Water Bodies: Alisal Creek, Gabilan Creek, Lower Salinas River, Natividad Creek, Salinas Reclamation Canal, Santa Rita Creek

TMDL Implementation Requirements: The Permittee identified for TMDL for Nitrogen Compounds and Orthophosphate in the Lower Salinas River Watersheds shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final compliance deadline is May 7, 2044.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.18 TMDL for Toxicity and Pesticides in the Santa Maria Watershed

Responsible Permittees: City of Guadalupe; City of Santa Maria; County of Santa Barbara

Impaired Water Bodies: Greene Valley Creek, Blosser Channel, Bradley Channel, Main Street Canal, Orcutt Creek, Santa Maria River

TMDL Implementation Requirements: The Permittees identified for the TMDL for Toxicity and Pesticides in the Santa Maria River Watershed shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Wasteload allocations will be achieved through implementation of management practices and strategies to reduce pesticide loading, and wasteload allocation attainment will be demonstrated through water quality monitoring. Implementation can be conducted by the Permittee specifically and/or through statewide programs addressing urban pesticide water pollution. The Wasteload Allocation Attainment Plan may include participation in statewide efforts, by organizations such as California Stormwater Quality Association (CASQA), that coordinate with Department of Pesticide Regulation and other organizations taking actions to protect water quality from the use of pesticides in the urban environment.

Final Deadlines for Compliance: The final deadline for compliance with the pyrethroid wasteload allocation is November 1, 2029. The final compliance date to achieve the wasteload allocations for organochlorine pesticides (dichloro-diphenyl-trichloroethane, dichloro-diphenyl-dichloroethane, dichloro-diphenyl-dichloroethylene, chlordane, eldrin, toxaphene, and dieldrin) is November 1, 2044.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2:

1. By October 29, 2029, the Permittee shall demonstrate attainment of the pyrethroids additive toxicity wasteload allocation as specified in the section titled TMDL Demonstration of Compliance Report in section G2 and Attachment D or E (as applicable).
2. By October 29, 2044, the Permittee shall demonstrate attainment of the organochlorine pesticides (DDT, DDD, DDE, chlordane, eldrin, toxaphene, dieldrin) wasteload allocation in its TMDL Demonstration of Compliance Report as specified in Attachments D and E (as applicable).

G4.3.19 TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin

Responsible Permittees: City of Gilroy, City of Hollister, City of Morgan Hill, City of Watsonville, County of Monterey, County of Santa Clara, County of Santa Cruz

Impaired Water Bodies: Carnadero Creek, Corralitos Creek, Gallighan Slough, Harkins Slough, Llagas Creek, Pajaro River, Pajaro River Estuary, Pescadero Creek, Salsipuedes Creek, San Benito River, Santa Ana Creek, Struve Slough, Uvas Creek, Watsonville Slough

TMDL Implementation Requirements: The Permittee identified in the TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Deadline for Compliance: The final compliance date is July 2, 2026. Permittees may request time schedule orders (see section G2.4, above) from the Central Coast Water Board Executive Officer along with early and on-going interaction with Central Coast Water Board staff for adoption of time schedule orders and development of Wasteload Allocation Attainment Plans.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.20 TMDL for Sediment Toxicity and Pyrethroid Pesticides in Sediment in the Lower Salinas River Watershed

Responsible Permittee: County of Monterey

Impaired Water Bodies: Alisal Creek, Alisal Slough, Blanco Drain, Chualar Creek, Espinosa Slough, Gabilan Creek, Merrit Ditch, Natividad Creek, Old Salinas River, Quail Creek, Salinas Reclamation Canal, Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920), Tembladero Slough

Final Compliance Deadline: Targets shall be achieved in receiving waters as indicators of meeting TMDLs by June 29, 2033.

TMDL Implementation Requirements: The Permittee identified for the TMDL for Sediment Toxicity and Pyrethroid Pesticides in Sediment in the Lower Salinas River Watershed shall develop and implement a Wasteload Allocation Attainment Plan that identifies the actions it will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Wasteload allocations will be achieved through implementation of management practices and strategies to reduce pesticide loading, and wasteload allocation attainment will be demonstrated through water quality monitoring. Implementation can be conducted by the Permittee specifically and/or through statewide programs addressing urban pesticide water pollution. The Wasteload Allocation Attainment Plan may include participation in statewide efforts, by organizations such as California Stormwater Quality Association (CASQA), that coordinate with Department of Pesticide Regulation and other organizations taking actions to protect water quality from the use of pesticides in the urban environment.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.21 TMDL for Nitrogen and Phosphorous Compounds in Streams of the Franklin Creek Watershed

Responsible Permittees: City of Carpinteria, County of Santa Barbara

Impaired Water Body: Franklin Creek

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final allocations shall be achieved by May 9, 2034, which is 25 years after the TMDL effective date.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.22 TMDL for Total Phosphorous to Address Cyanobacterial Blooms in Pinto Lake

Responsible Permittees: City of Watsonville, County of Santa Cruz

Impaired Water Body: Pinto Lake

TMDL Implementation Requirements: The Permittee identified for this TMDL, above, shall each develop and implement a Wasteload Allocation Attainment Plan that identifies the actions they will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final compliance deadline is September 9, 2031, which is 10 years after approval by Office of Administrative Law.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.3.23 TMDL for Turbidity in Gabilan Creek Watershed

Responsible Permittee: County of Monterey

Impaired Water Bodies: Alisal Creek, Alisal Slough, Espinosa Slough, Gabilan Creek, Merritt Ditch, Natividad Creek, Old Salinas River, Salinas Reclamation Canal, Santa Rita Creek, Tembladero Slough

TMDL Implementing Requirements: The Permittee identified for this TMDL, above, shall develop and implement a Wasteload Allocation Attainment Plan that identifies the actions it will take to ensure its wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: The final compliance deadline is December 8, 2042.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports as specified in sections G2 and G4.3.1, above. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

G4.4 LOS ANGELES WATER BOARD

The following sections provide the implementation, compliance, and reporting requirements for TMDLs within the Los Angeles Water Board region.

G4.4.1 Standard Implementation Action Requirements for Bacteria and Bacteria Indicator TMDLs in the Los Angeles Regional Water Board

Bacteria and indicator bacteria TMDL-specific actions and requirements are provided under each bacteria TMDL.

This Order carries over the previous permits requirements for selecting and implementing either Cooperative Agreements or Program Plans to comply with Los Angeles Water Board bacteria and bacteria indicator TMDLs. The Permittee shall continue to implement its selected path, either a Cooperative Agreement or Program Plan, as follows:

1. Cooperative Agreement for Bacteria TMDLs.

   The Permittee was required to notify the Los Angeles Water Board by January 1, 2019, of its intent to enter into a cooperative agreement with the Phase I MS4 Permittee. The Cooperative Agreement was required to be finalized by July 1, 2019, and submitted to the Los Angeles Water Board Executive Officer upon finalization. The Permittee's notification was required to identify the Phase I MS4 Permittee and the Watershed Management Program or Enhanced Watershed Management Program that the Permittee intends to participate in. The Watershed Management Program or Enhanced Watershed Management Program were required to be developed and approved pursuant to one of the Los Angeles Water Board's Phase I MS4 permits. The Cooperative Agreement is required to be in the watershed or subwatershed of the applicable bacteria impaired water body.

Or alternatively,

2. Program Plan for Bacteria TMDLs

   The Program Plan was required to be submitted by July 1, 2019, for review and consideration of approval by the Los Angeles Regional Water Board Executive Officer. Once approved, the Permittee is required to implement the Program Plan. The Permittee is responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. The Permittee's Program Plan shall identify the currently used and planned best management practices and any other planned actions to attain the wasteload allocations, which may include retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that by implementing the best management practices and other planned actions in the Program Plan, the Permittee's MS4 discharges shall achieve the wasteload allocations by the attainment

schedule deadline identified in the Fact Sheet, Attachment B. The Program Plan shall include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocations and validation of the technical demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer.

G4.4.2 Avalon Bay Bacteria TMDL

Responsible Permittee: City of Avalon

Impaired Water Body: Avalon Beach

TMDL Monitoring and Implementation Requirements: Avalon shall continue to implement the monitoring requirements in Cease and Desist Order R4-2012-0077 and as otherwise directed by the Los Angeles Water Board Executive Officer.

TMDL Reporting Requirements: Avalon shall provide the status of compliance with Cease and Desist Order R4-2012-0077 and the following information in each Annual Report (see section G2, above, for TMDL Annual Reporting):

1. Status of compliance with wasteload allocations; and
2. Ongoing actions to comply with the wasteload allocations, the Permittee-specific provisions of Cease and Desist Order R4-2012-0077, and this Order.

G4.4.3 Ballona Creek, Estuary, and Sepulveda Channel Bacteria TMDL

Responsible Permittees: University of California, Los Angeles; Veterans Affairs Greater Los Angeles Healthcare System

Impaired Water Body: Ballona Creek

TMDL Monitoring and Implementation Requirements: The Permittee shall continue to perform TMDL monitoring and TMDL implementation actions according to the Permittee's action selected under the previous order, which are either the Cooperative Agreement or the Program Plan, as described in section G4.4.1.

TMDL Reporting Requirements: In each Annual Report required under section G2 of this Order, each Responsible Permittee shall:

1. Demonstrate that the dry weather wasteload allocation was in compliance by January 1, 2019, per TMDL Demonstration of Compliance requirements in section G2, and
2. Demonstrate that compliance with the wet weather wasteload allocation is achieved by July 15, 2026, per the TMDL Demonstration of Compliance requirements in section G2; and

3. Report the following:
    a. Status of compliance with wasteload allocations;
    b. Demonstration of compliance with wasteload allocations as described in section G2;
    c. Ongoing actions to comply with wasteload allocations;
    d. Identification of which implementation action in section G4.4.1 was chosen, either the Cooperative Agreements or the Program Plan; and
    e. Status of implementation of either the Cooperative Agreements or the Program Plan described in section G4.4.1.

G4.4.4 Los Angeles Harbor Bacteria TMDL – Inner Cabrillo Beach and Main Ship Channel

Responsible Permittees: Federal Correctional Institution, Terminal Island; California State University, Dominguez Hills

Impaired Water Body: Los Angeles Harbor

TMDL Monitoring and Implementation Requirements: The Permittee shall continue to perform TMDL monitoring and TMDL implementation actions according to the Permittee's action selected under the previous order, which are either the Cooperative Agreements or the Program Plan for Bacteria TMDLs, as described in section G4.4.1.

TMDL Reporting Requirements: In each Annual Report (see section G2), the Permittee shall report the following:

1. Status of compliance with wasteload allocations;
2. Demonstration of compliance with wasteload allocations per the requirements in section G4.1;
3. Ongoing actions to comply with wasteload allocations;
4. Identification of which implementation action in section G4.4.1 was chosen, either the Cooperative Agreements or the Program Plan for Bacteria TMDLs; and
5. Status of implementation of either the Cooperative Agreements or the Program Plan for Bacteria TMDLs described in section G4.4.1.

G4.4.5 Los Angeles River Bacteria TMDL

Responsible Permittees: California State University, Los Angeles; California State University, Northridge

Impaired Water Body: Los Angeles River

TMDL Monitoring and Implementation Requirements: TMDL monitoring and TMDL implementation actions shall continue to be performed according to the action the Permittee selected under the previous permit. These actions include a choice of either Cooperative Agreements or the Program Plan for Bacteria TMDLs, which are described in section G4.4.1.

TMDL Reporting Requirements: In each Annual Report required under this Order (section G2) the Permittee shall:

1. Use section G2 (TMDL Demonstration of Compliance Report requirements) to demonstrate compliance with the following final dry weather compliance dates:

Waterbody Segment	Final Dry Weather Compliance Date
Segment B (upper and middle Reach 2)	March 23, 2022
Segment B Tributaries (Rio Hondo and Arroyo Seco)	September 23, 2023
Segment A (lower Reach 2 and Reach 1)	March 23, 2024
Segment A Tributaries (Compton Creek)	September 23, 2025
Segment E (Reach 6)	March 23, 2025

2. Use section G2 (TMDL Demonstration of Compliance Report requirements) to demonstrate ongoing actions to achieve compliance and to demonstrate that compliance will be achieved by the following final dry weather compliance dates:

Waterbody Segment	Final Dry Weather Compliance Date
Segment E Tributaries (Dry Canyon, McCoy and Bell Creeks, and Aliso Canyon Wash)	March 23, 2029
Segment C (lower Reach 4 and Reach 3)	September 23, 2030
Segment C Tributaries (Tujunga Wash, Burbank Western Channel and Verdugo Wash)	September 23, 2030
Segment D (Reach 5 and upper Reach 4)	September 23, 2030
Segment D Tributaries (Bull Creek)	September 23, 2030

3. Use the criteria in section G2 (TMDL Demonstration of Compliance Report requirements) to demonstrate ongoing and planned actions to achieve the wet weather wasteload allocations by March 23, 2037.
4. Provide the status and on-going actions for compliance with wasteload allocations.
5. Identify and provide the status of the implementation action in section G4.4.1 was chosen, either the Cooperative Agreement or the Program Plan for Bacteria TMDLs.

G4.4.6 San Gabriel River, Estuary and Tributaries Indicator Bacteria TMDL

Responsible Permittee: California State Polytechnic University, Pomona

Impaired Water Body: San Gabriel River and Tributaries

TMDL Monitoring and TMDL Implementation Requirements: TMDL monitoring and TMDL implementation actions shall continue to be performed according to the action the Permittee selected under the previous permit. These actions include a choice of either Cooperative Agreements or the Program Plan, which are reiterated in section G4.1 of this Order.

TMDL Reporting Requirements: In each Annual Report, the Permittee shall:

1. Demonstrate that attainment of the dry weather wasteload allocation will be achieved by June 14, 2026. Document actions and attainment as required by the criteria in section G2, TMDL Compliance Requirements.
2. Demonstrate that attainment of the TMDL wasteload allocation will be achieved by June 14, 2036. Document actions and attainment as required by the criteria in section G2, TMDL Compliance Requirements.
3. Provide the status of compliance with wasteload allocations.
4. Demonstrate compliance with wasteload allocations using the criteria described in section G4.4.1.
5. Provide ongoing actions to comply with wasteload allocations.
6. Identify and provide the status of the implementation action selected in section G4.4.1, either the Cooperative Agreements or the Program Plan.

G4.4.7 Los Angeles Water Board General Requirements for Cooperative Agreements and Program Plans for Metals, Selenium, and Nitrogen Compounds and Related Effects

This Order carries over the previous permit's requirement to select one of two actions to meet the requirements of the metals, selenium, and other TMDLs. These requirements are described as follows:

1. Cooperative Agreement.

   Enter into a cooperative agreement with the Phase I MS4 Permittee in the watershed or subwatershed of the impaired water body of the appropriate TMDL to participate in a Watershed Management Program or Enhanced Watershed Management Program that was developed and approved pursuant to one of the Los Angeles Water Board's Phase I MS4 permits. If this action was selected, then a Small MS4 Permittee was required to notify the Los Angeles Water Board of its intent to enter into a Cooperative Agreement by January 1, 2019, and to identify the Phase I MS4 Permittee and the Watershed Management Program or Enhanced Watershed Management Program that the Small MS4 Permittee intends to participate in. The Permittee was required to finalize the Cooperative Agreement by July 1, 2019, and to submit the cooperative agreement to the Los Angeles Water Board Executive Officer upon finalization.

Or alternatively,

2. Program Plan.

   Propose a Program Plan for attaining the wasteload allocations. The Program Plan must identify the currently used and planned best management practices and any other planned actions to attain the wasteload allocations, which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that by implementing the best management practices and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocations by the attainment schedule deadlines identified within the specific TMDL sections. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocations and validate the technical demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan was required to be submitted for Los Angeles Regional Water Board Executive Officer approval by July 1, 2019. Once approved, the Permittee must implement the Program Plan and is responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data.

G4.4.8 Ballona Creek Metals TMDL

Responsible Permittees: University of California, Los Angeles; Veterans Affairs Greater Los Angeles Healthcare System

Impaired Water Body: Ballona Creek

TMDL Monitoring and TMDL Implementation Requirements: The Permittee shall continue to perform TMDL monitoring and implementation according to

the action the Permittee selected under the previous permit. These actions include implementing the choice of either Cooperative Agreement or the Program Plan, which are reiterated in section G4.4.7.

TMDL Reporting Requirements: In the Annual Report, the Permittee shall report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreement or Program Plan.
2. Ongoing monitoring and actions to continue compliance per the option selected in section G4.4.7.
3. Status and demonstration of compliance with the January 1, 2019, dry weather wasteload allocation deadline using the criteria in section G2.
4. Demonstration of compliance with the January 11, 2021, wet weather wasteload allocation deadline using the criteria in section G2.

G4.4.9 Los Angeles River and Tributaries Metals TMDL

Responsible Permittees: California State University, Los Angeles; California State University, Northridge

Impaired Water Body: Los Angeles River

TMDL Monitoring and TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which includes a choice of either Cooperative Agreement or the Program Plan. These choices are reiterated in section G4.4.7 of this Order.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Action selected under the previous permit, which include either the Cooperative Agreement or the Program plan, as reiterated in G4.4.7.
2. Demonstration that compliance with the dry weather wasteload allocation was achieved by January 11, 2024, using the criteria selected in section G2 of this Order.
3. Demonstration that compliance with the wet weather wasteload allocation will be achieved by January 11, 2028, using the criteria selected in section G2, above.

G4.4.10 Los Cerritos Channel Metals TMDL

Responsible Permittees: California State University, Long Beach; Long Beach Veterans Affairs Medical Center

Impaired Water Body: Los Cerritos Channel

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreement or the Program Plan. These choices are reiterated in section G4.4.7 of this Order.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstration of compliance with September 30, 2023, dry weather wasteload allocation deadline using the criteria in section G2.
4. By September 30, 2026, demonstrate compliance with the wet weather wasteload allocation deadline using the criteria in section G2.

G4.4.11 Calleguas Creek Watershed Metals and Selenium TMDL

Responsible Permittees: Naval Base Ventura County, including Port Hueneme and Point Mugu; California State University Channel Islands

Impaired Water Body: Calleguas Creek

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreements or the Program Plan. These choices are reiterated in section G4.4.7.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstration of compliance with the March 27, 2022, final wasteload allocations for metals and selenium using the demonstration of compliance criteria in section G2.

G4.4.12 San Gabriel River and Impaired Tributaries Metals and Selenium TMDL

Responsible Permittee: California State Polytechnic University, Pomona

Impaired Water Body: San Gabriel River and tributaries

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreement or the Program Plan. These choices are reiterated in section G4.4.7.

TMDL Reporting Requirements:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Using the criteria in section G2, by September 30, 2023, the Permittee shall demonstrate that 100 percent of the total drainage area served by the storm drain system is effectively meeting the dry-weather wasteload allocations and 65 percent of the total drainage area served by the storm drain system is effectively meeting the wet-weather wasteload allocations10.
4. Using the criteria in section G2, by September 30, 2026, the Permittee shall demonstrate that 100 percent of the total drainage area served by the storm drain system is effectively meeting both the dry-weather and wet-weather wasteload allocations and attaining water quality standards for copper, lead, and zinc[11].

G4.4.13 Los Angeles River Nitrogen Compounds and Related Effects TMDL

Responsible Permittees: California State University, Los Angeles; California State University, Northridge

Impaired Water Body: Los Angeles River

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreements or the Program Plan. These choices are reiterated in section G4.4.7.

[10] Los Angeles Water Board Basin Plan section 7-20.
[11] Los Angeles Water Board Basin Plan section 7-20

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstration that compliance with the final wasteload allocations was achieved by January 1, 2019. The Permittee shall demonstrate compliance using the criteria in section G2.

G4.4.14 Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL

Responsible Permittees: Naval Base Ventura County, including Port Hueneme and Point Mugu; California State University Channel Islands

Impaired Water Body: Calleguas Creek

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreements or the Program Plan as described under G4.4.7 of this Attachment.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7 of this Attachment, which is either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. On or before March 24, 2026, demonstrate that compliance with the final wasteload allocations was achieved. The Permittee shall demonstrate compliance using the criteria in section G2 of this Attachment.

G4.4.15 Ballona Creek Estuary Toxic Pollutants TMDL

Responsible Permittees: University of California, Los Angeles; Veterans Affairs Greater Los Angeles Healthcare System

Impaired Water Body: Ballona Creek

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the

Permittee selected under the previous permit, which include a choice of either Cooperative Agreements or the Program Plan. These choices are reiterated in section G4.4.7 of this Attachment.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstrate that compliance with the final wasteload allocations was achieved by January 11, 2021. The Permittee shall demonstrate compliance using the criteria in section G2.

G4.4.16 Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

Responsible Permittees: Federal Correction Institution, Terminal Island; California State University, Dominguez Hills

Impaired Water Body: Dominguez Channel Watershed

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and implementation actions according to the action the Permittee selected under the previous permit, which include a choice of either Cooperative Agreements or the Program Plan. These choices are found in section of this Attachment.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstrate that compliance with the final wasteload allocations will be achieved by March 23, 2032. The Permittee shall demonstrate compliance using the requirements in the previous permit and as reiterated in section G2.

G4.4.17 Calleguas Creek Watershed Toxicity TMDL

Responsible Permittees: Naval Base Ventura County, including Port Hueneme and Point Mugu; California State University, Channel Islands

Impaired Water Body: Calleguas Creek

TMDL Implementation Requirements: The Permittee shall continue TMDL monitoring and TMDL implementation actions according to the action the Permittee selected under the previous permit, which includes a choice of either Cooperative Agreements or the Program Plan. These choices are reiterated in section G4.4.7 of this Order.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Implementation action selected under the previous permit and as reiterated in section G4.4.7, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.7.
3. Demonstrate that compliance with the final wasteload allocations was achieved by January 1, 2019. The Permittee shall demonstrate compliance using the criteria in the previous permit and as reiterated in section G2, above.

G4.4.18 Ballona Creek Trash TMDL

Responsible Permittees: University of California, Los Angeles; Veterans Affairs, Greater Los Angeles Healthcare System

Impaired Water Body: Ballona Creek

TMDL Implementation Requirements: The Permittee shall continue TMDL implementation actions according to the action the Permittee selected under the previous permit, which includes a choice of either:

1. Full Capture Systems,
2. Partial capture devices and the application of institutional controls, or
3. A scientifically based alternative attainment approach to implement either a Full Capture System or partial capture devices and the application of institutional controls. This choice was required to be submitted for approval by the Los Angeles Regional Water Board Executive Officer by July 1, 2019.

A full capture system is any device or series of devices that traps all particles retained by a 5-millimeter mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation).

A partial capture device does not meet the definition of a full capture system; a partial capture device may not trap all particles 5-millimeter or greater or may not have the minimum design treatment capacity of a one year, one hour, storm event. Thus, a Permittee must implement institutional controls in combination with the partial capture device to comply with the wasteload allocations. The Permittee employing partial capture devices and institutional controls shall use a mass balance approach based on the trash daily generation rate, assessed annually, to demonstrate attainment. (See Fact Sheet for attainment determination information).

An alternative attainment approach was due to the Los Angeles Water Board Executive Officer by July 1, 2019, for review and consideration of approval. The alternative attainment approach was required to specify whether the Permittee was implementing either 1) a full capture system or 2) partial capture devices and the application of institutional controls. The Permittee was required to include any proposed studies of institutional controls and partial capture devices for its particular subwatersheds or demonstrate that existing studies are representative and transferable to the implementing area. The Permittee is required to include a schedule for periodic, attainment effectiveness demonstration, and evaluation.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Identification of the compliance choice selected by July 1, 2019, (full capture, partial capture with institutional controls, or the alternative attainment approach).
2. Status of on-going implementation.
3. Demonstration that compliance with the final wasteload allocations was achieved by January 1, 2019, using the requirements in the previous permit and as reiterated in section G2, above.

G4.4.19 Los Angeles River Trash TMDL

Responsible Permittees: California State University, Los Angeles; California State University, Northridge

Impaired Water Body: Los Angeles River

TMDL Implementation Requirements: The Permittee shall continue TMDL implementation actions according to the action the Permittee selected under the previous permit, which includes a choice of either:

1. Full Capture Systems,
2. Partial capture devices and the application of institutional controls, or

3. A scientifically based alternative attainment approach to implement either a Full Capture System or partial capture devices and the application of institutional controls. This choice was required to be submitted for approval by the Los Angeles Regional Water Board Executive Officer by July 1, 2019.

A full capture system is any device or series of devices that traps all particles retained by a 5-millimeter mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation).

A partial capture device does not meet the definition of a full capture system; a partial capture device may not trap all particles 5-millimeter or greater or may not have the minimum design treatment capacity of a one year, one hour, storm event. Thus, a Permittee must implement institutional controls in combination with the partial capture device to comply with the wasteload allocations. The Permittee employing partial capture devices and institutional controls shall use a mass balance approach based on the trash daily generation rate, assessed annually, to demonstrate attainment. (See Fact Sheet for attainment determination information).

An alternative attainment approach was due to the Los Angeles Water Board Executive Officer by July 1, 2019, for review and consideration of approval. The alternative attainment approach was required to specify whether the Permittee was implementing either 1) a full capture system or 2) partial capture devices and the application of institutional controls. The Permittee was required to include any proposed studies of institutional controls and partial capture devices for its particular subwatersheds or demonstrate that existing studies are representative and transferable to the implementing area. The Permittee is required to include a schedule for periodic, attainment effectiveness demonstration, and evaluation.

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Identification of the compliance choice selected by July 1, 2019, (full capture, partial capture with institutional controls, or the alternative attainment approach).
2. Status of on-going implementation.
3. Demonstration that compliance with the final wasteload allocations was achieved by January 1, 2019, using the requirements in the previous permit and as reiterated in section G2, above.

G4.4.20 Ventura River Estuary Trash TMDL

Responsible Permittee: Ventura County Fairgrounds (Seaside Park and Ventura County Fairgrounds)

Impaired Water Body: Ventura River

TMDL Implementation Requirements: The Ventura County Fairgrounds (Seaside Park and Ventura County Fairgrounds) shall continue implementing the trash implementation requirements set forth in the previous permit, which requires installation of full capture systems. A full capture system is any device or series of devices that traps all particles retained by a 5-millimeter mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation).

TMDL Reporting Requirements: The Permittee shall report the following information in each Annual Report:

1. Status of on-going implementation to control trash.
2. Demonstration that compliance with the final wasteload allocations of zero discharge was achieved by January 1, 2019, using the requirements in the previous permit and as reiterated in section G2.

G4.5 CENTRAL VALLEY WATER BOARD

G4.5.1 Lower San Joaquin River Diazinon and Chlorpyrifos TMDL

Responsible Permittee: City of Patterson

Impaired Water Body: San Joaquin River from Mendota Dam to Vernalis

TMDL Implementation Requirements: By the effective date of this Order, the Permittee shall implement best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges. This will be implemented through compliance with the following sections of the Order:

1. Discharge Prohibitions, Order section 4;
2. Legal Authority, Order section 3;
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,
    c. Post-Construction Storm Water Management Program,
    d. Program Effectiveness Assessment and Improvement,
    e. Total Maximum Daily Loads Compliance Requirements Reporting.

TMDL Monitoring Requirements:

1. Demonstration of Compliance with Wasteload Allocations
    a. The Permittee, who has demonstrated attainment of the wasteload allocations and received confirmation from the Central Valley Water Regional Board Executive Officer, shall discontinue monitoring and continue to implement the TMDL Implementation Requirements described above.
    b. The Permittee who has not demonstrated attainment of the wasteload allocations shall conduct an assessment:
        1) No later than 6 months after the effective date of this Order, the Permittee shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and the attainment of wasteload allocations in the urban discharge; and evaluate attainment of the established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittee.

2) The Permittee is responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and consideration of approval. The assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices.

c. With Central Valley Regional Water Board Executive Officer approval, the Permittee may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section.

d. The Permittee that implements individual water quality monitoring plan must submit a Monitoring Plan and Quality Assurance Project Plan to the Central Valley Regional Water Board Executive Officer for review and consideration of approval.

1) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:

a) Management questions to be answered by the Monitoring Plan,

b) Constituents to be monitored, analytical methods, and reporting limits,

c) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

d) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),

e) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that shall be attached as part of the TMDL Annual Reporting pursuant to section G2 (above).

2) Quality Assurance Project Plan consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed according to the Quality Assurance Project Plan. Monitoring Reports shall be attached as part of the TMDL Annual Reporting pursuant to G2 (above) and shall include the following information (consistent with the approved Monitoring Plan):

a) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;

b) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;

c) Identification of and rationale for any deviations from the Quality Assurance Project Plan;

d) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;

e) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;

f) Comparison to reference sites (if applicable), guidelines or targets;

g) Discussion of whether data collected addresses the objectives or questions of study design; and

h) Quantifiable discussion of program/study pollutant reduction effectiveness.

2. Pesticide Management Plans

Unless the Permittee can demonstrate attainment of the wasteload allocations, the Permittee shall prepare a Pesticide Management Plan which includes a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in the pesticide management plans covering current use pesticides with the goal of reducing the discharge of pesticides from municipal stormwater to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law, the use of such pesticides by other sources within its jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of Integrated Pest Management programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. Additionally, the plan shall include the integration of Integrated Pest Management into the Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach.

The Central Valley Regional Water Board Executive Officer may require revisions to the Pest Management Plans if the Central Valley Regional

Water Board Executive Officer determines that the Pest Management Plan is not likely to attain the wasteload allocations. Pest Management Plans may be submitted by an individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Pest Management Plans may include actions to reduce the Permittee's pesticide discharges through participation or support of a regional or statewide pesticide reduction program. To receive credit toward compliance for such participation, the Permittee must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's pesticide regulatory initiative. In developing the monitoring and reporting programs for the Permittee, the Central Valley Water Board will, in coordination with the California Department of Pesticide Regulation, assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary.

TMDL Reporting Requirements: By the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations pursuant to section G2 (above) and the TMDL Demonstration of Compliance Report in Attachment D. TMDL wasteload allocations are found in Attachment A, section A15.5.1.

G4.5.2 Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL

Responsible Permittees: City of Lathrop, City of Lodi, City of Manteca, City of Rio Vista, City of Tracy, City of West Sacramento

Impaired Water Body: Sacramento-San Joaquin Delta Waterways

TMDL Implementation Requirements: By the effective date of this Order, the Permittee shall implement the following best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges. This will be implemented through compliance with the following requirements:

1. Discharge Prohibitions, Order section 4;
2. Legal Authority, Order section 3;
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,

c. Post-Construction Storm Water Management Program,

d. Program Effectiveness Assessment and Improvement,

e. Total Maximum Daily Loads Compliance Requirements Reporting.

TMDL Monitoring Requirements:

1. Demonstration of Compliance with Wasteload Allocations

   a. The Permittee, who has demonstrated attainment of the wasteload allocations and received confirmation from the Central Valley Water Regional Board Executive Officer, shall discontinue monitoring and continue to implement the TMDL Implementation Requirements described above.

   b. The Permittee who has not demonstrated attainment of the wasteload allocations shall conduct an assessment:

      1) No later than 6 months after the effective date of this Order, the Permittee shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and attainment of wasteload allocations in the urban discharge; and evaluate attainment of the established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittee.

      2) The Permittee is responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and approval. The assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices.

   c. With Central Valley Regional Water Board Executive Officer approval, the Permittee may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section.

   d. The Permittee that implement individual water quality monitoring must submit a Monitoring Plan and Quality Assurance Project Plan to the Central Valley Regional Water Board Executive Officer for review and approval.

1) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:
   a) Management questions to be answered by the Monitoring Plan,
   b) Constituents to be monitored, analytical methods, and reporting limits,
   c) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,
   d) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),
   e) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the TMDL Annual Reporting pursuant to section G2 (above).
2) Quality Assurance Project Plan consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed according to the Quality Assurance Project Plan. Monitoring Reports shall be submitted with the TMDL Annual Reporting pursuant to section G2 (above) and include the following information (consistent with the approved Monitoring Plan):
   a) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;
   b) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;
   c) Identification of and rationale for any deviations from the Quality Assurance Project Plan;
   d) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;
   e) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;
   f) Comparison to reference sites (if applicable), guidelines or targets;

g) Discussion of whether data collected addresses the objectives or questions of study design; and

h) Quantifiable discussion of program/study pollutant reduction effectiveness.

2. Pesticide Management Plan

Unless the Permittee can demonstrate attainment of the wasteload allocations, the Permittee shall prepare a Pesticide Management Plan which includes a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in the Pesticide Management Plan covering current use pesticides with the goal of reducing the discharge of pesticides from municipal stormwater to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law, the use of such pesticides by other sources within its jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of Integrated Pest Management programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. Additionally, the plan shall include the integration of Integrated Pest Management into the Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach.

The Central Valley Regional Water Board Executive Officer may require revisions to the Pest Management Plans if the Central Valley Regional Water Board Executive Officer determines that the Pest Management Plan is not likely to attain the wasteload allocations. Pest Management Plans may be submitted by individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Pest Management Plans may include actions to reduce the Permittee's pesticide discharges through participation or support of a regional or statewide pesticide reduction program. To receive credit toward compliance for such participation, the Permittee must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's (CASQA) pesticide regulatory initiative. In developing the monitoring and reporting programs for the Permittee, the Central Valley

Water Board will, in coordination with the California Department of Pesticide Regulation, assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary.

TMDL Reporting: By the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations in accordance with section G2 (above) and the TMDL Demonstration of Compliance Report requirements in Attachment D. TMDL wasteload allocations are found in Attachment A, section A15.5.2.

G4.5.3 TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers

Responsible Permittees: City of Anderson, City of Marysville, City of Red Bluff, City of Redding, City of Yuba City, County of Colusa, County of Shasta, County of Sutter, County of Yuba

Impaired Water Bodies: Sacramento River from Shasta Dam to I Street Bridge, Feather River from Fish Barrier Dam to Sacramento River

TMDL Implementation Requirements: By the effective date of this Order the Permittee shall implement best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges. This will be implemented through compliance with the following requirements:

1. Discharge Prohibitions, Order section 4
2. Legal Authority, Order section 3;
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,
    c. Post-Construction Storm Water Management Program,
    d. Program Effectiveness Assessment and Improvement,
    e. Total Maximum Daily Loads Compliance Requirements Reporting.

TMDL Monitoring Requirements:

1. Demonstration of Compliance with Wasteload Allocations
    a. The Permittee, who has demonstrated attainment of the wasteload allocations and received confirmation from the Central Valley Water Regional Board Executive Officer, shall discontinue monitoring and continue to implement the TMDL Implementation Requirements described above.

b. The Permittee who has not demonstrated attainment of the wasteload allocations shall conduct an assessment:

   1) No later than 6 months after the effective date of the Order, the Permittee shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and attainment of wasteload allocations in the urban discharge; and evaluate attainment of the established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittee.

   2) The Permittee is responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and approval. The assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices.

c. With Central Valley Regional Water Board Executive Officer approval, the Permittee may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section.

d. The Permittee that implement individual water quality monitoring must submit a Monitoring Plan and Quality Assurance Project Plan to the Central Valley Regional Water Board Executive Officer for review and approval.

   1) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:

      a) Management questions to be answered by the Monitoring Plan,

      b) Constituents to be monitored, analytical methods, and reporting limits,

      c) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

      d) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),

      e) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the

Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the TMDL Annual Reporting pursuant to section G2 (above).

2) Quality Assurance Project Plan consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed according to the Quality Assurance Project Plan. Monitoring Reports shall be submitted with the TMDL Annual Reporting pursuant to section G2 (above) and include the following information (consistent with the approved Monitoring Plan):

   a) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;

   b) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;

   c) Identification of and rationale for any deviations from the Quality Assurance Project Plan;

   d) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;

   e) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;

   f) Comparison to reference sites (if applicable), guidelines or targets;

   g) Discussion of whether data collected addresses the objectives or questions of study design; and

   h) Quantifiable discussion of program/study pollutant reduction effectiveness.

2. Pesticide Management Plan

   Unless the Permittee can demonstrate attainment of the wasteload allocations, the Permittee shall prepare a Pesticide Management Plan which includes a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in the pesticide management plans covering current use pesticides with the goal of reducing the discharge of pesticides from municipal stormwater to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law,

the use of such pesticides by other sources within its jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of Integrated Pest Management programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. Additionally, the plan shall include the integration of Integrated Pest Management into the Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach.

The Central Valley Regional Water Board Executive Officer may require revisions to the Pest Management Plans if the Central Valley Regional Water Board Executive Officer determines that the Pest Management Plan is not likely to attain the wasteload allocations. Pest Management Plans may be submitted by individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Pest Management Plans may include actions to reduce the Permittee's pesticide discharges through participation or support of a regional or statewide pesticide reduction program. To receive credit toward compliance for such participation, the Permittee must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's (CASQA) pesticide regulatory initiative. In developing the monitoring and reporting programs for the Permittee, the Central Valley Water Board will, in coordination with the California Department of Pesticide Regulation, assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary.

Final Compliance Deadline: The final compliance deadline is May 21, 2040.

TMDL Reporting Requirements: By the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations in accordance with section G2 (above) the TMDL Demonstration of Compliance Report requirements in Attachment D. The TMDL wasteload allocations are found in Attachment A, section A15.5.3.

G4.5.4 TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel

Responsible Permittees: City of Atwater, City of Ceres, City of Escalon, City of Hughson, City of Lathrop, City of Livingston, City of Los Banos, City of

Manteca, City of Merced, City of Newman, City of Oakdale, City of Patterson, City of Ripon, City of Riverbank, City of Turlock, County of Merced, County of Stanislaus

Impaired Water Body: Lower San Joaquin River (Stockton Deep Water Ship Channel).

TMDL Implementation Requirements: The Permittee shall implement best management practices to control the discharge of oxygen demanding substances and precursors in the Permittee's urban discharge. The Permittee shall implement this requirement through compliance with the following sections of this Order:

1. Discharge Prohibitions, Order section 4;
2. Legal Authority, Order section 3;
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,
    c. Post-Construction Storm Water Management Program,
    d. Program Effectiveness Assessment and Improvement,
    e. Total Maximum Daily Loads Compliance Requirements Reporting.

TMDL Monitoring Requirements:

1. The Permittee who has demonstrated attainment of the wasteload allocations and received confirmation from the Central Valley Regional Water Board Executive Officer, shall discontinue monitoring and continue to implement the TMDL Implementation Requirements described above.
2. Within 6 months of the effective date of this Order, the Permittee who has not demonstrated attainment of the wasteload allocations shall submit an updated Monitoring and Reporting Plan.
3. The Permittee may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section, with Central Valley Regional Water Board Executive Officer approval.
4. The Permittee that chooses to implement individual water quality monitoring instead of participation in the Delta Regional Monitoring Program or other collective monitoring efforts must submit a Monitoring Plan and Quality Assurance Project Plan to the Executive Officer for review and consideration of approval.

a. Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:

   1) Management questions to be answered by the Monitoring Plan,

   2) Constituents to be monitored, analytical methods, and reporting limits,

   3) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

   4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),

   5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the TMDL Annual Reporting pursuant to section G2 (above).

b. Quality Assurance Project Plan consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed according to the Quality Assurance Project Plan. Monitoring Reports shall be submitted with the TMDL Annual Reporting pursuant to section G2 (above) and include the following information (consistent with the approved Monitoring Plan):

   1) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;

   2) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;

   3) Identification of and rationale for any deviations from the Quality Assurance Project Plan;

   4) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;

   5) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;

   6) Comparison to reference sites (if applicable), guidelines or targets;

   7) Discussion of whether data collected addresses the objectives or questions of study design; and

8) Quantifiable discussion of program/study pollutant reduction effectiveness.

TMDL Reporting Requirements:

1. The Permittee shall submit Annual Reports pursuant to section G2 (above) and the TMDL annual reporting requirements in Attachment D. The Permittee shall document progress toward attainment of the wasteload allocations in its Annual Report. In measuring compliance with permit requirements related to attainment of these wasteload allocations, the Central Valley Water Board Executive Officer will give credit for best management practices implemented after July 12, 2004. The Permittee shall document the implementation of best management practices to control the discharge of oxygen demanding substances and precursors in its urban discharge. Each Annual Report shall include documentation of compliance with the Order requirements and a discussion of the effectiveness of best management practices. The Permittee shall use the information gained from the Program Effectiveness Assessments to improve its program and identify new best management practices or modifications of existing best management practices to ensure that they are meeting applicable wasteload allocations. The Program Effectiveness Assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices.
2. By the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations in accordance with section G2 (above) the TMDL Demonstration of Compliance Report requirements in Attachment D. TMDL wasteload allocations are provided in Attachment A, section A15.5.4.

G4.5.5 Sacramento-San Joaquin Delta Methylmercury TMDL

Responsible Permittees: City of Lathrop, City of Lodi, City of Rio Vista, City of Tracy, City of West Sacramento, County of Yolo

Impaired Water Body: Sacramento-San Joaquin Delta and Yolo Bypass waterways listed in Basin Plan, Appendix 43, Table A43-1.

TMDL Implementation Requirements: The Permittee shall implement best management practices to control erosion and sediment discharges with the goal of reducing mercury discharges. This will be implemented through compliance with the following:

1. Discharge Prohibitions in Order section 5;

2. Legal Authority in Order section 3; and
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,
    c. Post-Construction Storm Water Management Program,
    d. Program Effectiveness Assessment and Improvement,
    e. Total Maximum Daily Loads Compliance Requirements Reporting.
4. Implement reasonable and feasible mercury and methylmercury management practices identified by the large MS4 Permittee and other Delta Mercury Control Program studies.

TMDL Monitoring Requirements: The following monitoring requirements apply after the Central Valley Water Board's review of Delta Mercury Control Program, (see the Delta Mercury Control Program in the Basin Plan) or October 20, 2022, whichever date occurs first:

1. Methylmercury Monitoring
    a. The Permittee shall begin monitoring methylmercury loads and concentrations in stormwater discharges to assess attainment with the TMDL allocations. Within one year of the Delta Mercury Control Program review, the Permittee shall submit a monitoring plan, for Central Valley Regional Water Board Executive Officer approval, describing the locations and frequency of methylmercury monitoring. The monitoring plan shall include sampling locations and frequencies representative of the Permittee's service area. The sampling locations, frequencies, and reporting may be the same as the requirements in this Order. The Permittee shall implement the monitoring plan within six months of Central Valley Regional Water Board Executive Officer approval.
    b. The Permittee shall begin monitoring ambient methylmercury concentrations within Delta waterways. With Central Valley Regional Water Board Executive Officer approval, the Permittee may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the ambient monitoring requirements required by the Delta Mercury Control Program.
    c. The Permittee that implements individual water quality monitoring must submit a Monitoring Plan and Quality Assurance Project Plan within one year of the Delta Mercury Control Program review to the Central Valley Water Board Executive Officer for review and approval.

1) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:
   a) Study objectives and management questions,
   b) Constituents to be monitored, analytical methods, and reporting limits as described in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Section 5.8.3.2,
   c) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,
   d) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),
   e) Proposed monitoring schedule and level of detail included in the TMDL Annual Reporting pursuant to G2 (above).
2) Quality Assurance Project Plan shall be consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed according to the Quality Assurance Project Plan.
   a) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;
   b) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;
   c) Identification of and rationale for any deviations from the Quality Assurance Project Plan;
   d) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;
   e) Quantifiable assessment, analysis, and interpretation of data for each monitoring parameter;
   f) Comparison to reference sites (if applicable), guidelines or targets;
   g) Discussion of whether data collected addresses the objectives or questions of study design; and
   h) Quantifiable discussion of program/study pollutant reduction effectiveness.

2. Progress toward attainment of the wasteload allocations shall be documented in the TMDL Annual Reporting pursuant to section G2 (above) by monitoring methylmercury loads from the MS4 or by quantifying the annual average methylmercury load reduced by implementing pollution prevention activities and source and treatment controls. The Delta Mercury Control Program provides guidance for the calculation of methylmercury loading from urban areas and determination of attainment (see Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Section 5.8.3.2). The assessment information may come from the Permittee's monitoring efforts, monitoring programs conducted by State or federal agencies or collaborative watershed efforts, or from special studies that evaluate the effectiveness of management practices, as approved by the Central Valley Water Board Executive Officer.

TMDL Reporting Requirements:

1. By December 31, 2030, the Permittee shall demonstrate attainment of the TMDL wasteload allocation in accordance with section G2 (above) and the TMDL Demonstration of Compliance Report requirements in Attachment D.
2. The Permittee shall document compliance with this TMDL in the TMDL Annual Reports described in section G2 (above) and Attachment D for annual reporting requirements. The Permittee shall document implementation of any methylmercury best management practices or controls, compliance with erosion and sediment control requirements, and monitoring requirements in this Order, including discussion on Program Effectiveness Assessment and Improvement.

G4.5.6 Clear Lake Nutrients TMDL

Responsible Permittees: City of Clearlake, City of Lakeport, County of Lake

Impaired Water Body: Clear Lake

TMDL Implementation: The Permittee shall implement best management practices to control erosion and sediment discharges as a means of controlling phosphorous. This will be implemented through compliance with the following requirements in this Order:

1. Discharge Prohibitions;
2. Legal Authority;
3. Attachment D – Provisions for Traditional Small MS4 Permittees:
    a. Illicit Discharge Detection and Elimination Program,
    b. Pollution Prevention and Good Housekeeping Program,
    c. Post-Construction Storm Water Management Program,

d. Water Quality Monitoring,

e. Program Effectiveness Assessment and Improvement,

f. Total Maximum Daily Loads Compliance Requirements Reporting.

TMDL Monitoring Requirements:

1. Within 3 months of the effective date of this Order, each Permittee shall incorporate individual monitoring and reporting plans, or the Permittee can collectively incorporate a single monitoring plan into its respective Storm Water Management Plans approved under the previous 2003 Permit (State Water Board Order 2003-0005-DWQ). The monitoring plans shall enable the Central Valley Water Board to evaluate the MS4 Permittee's progress toward attainment of the wasteload allocations and shall be representative of the respective MS4 service area.
2. With Central Valley Water Board Executive Officer approval, the Permittee may participate in a regional monitoring program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section.
3. The Permittee that implements individual water quality monitoring pursuant to this provision must develop and implement a Monitoring Plan and Quality Assurance Project Plan to the Central Valley Water Board Executive Officer for review and approval.

   a. Monitoring Plan – at a minimum, the Monitoring Plan must include the following information:

      1) Study objectives and management questions,

      2) Constituents to be monitored, analytical methods, and reporting limits,

      3) Sampling sites locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

      4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any),

      5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the TMDL Annual Reporting pursuant to section G2 (above).

   b. Quality Assurance Project Plan consistent with Surface Water Ambient Monitoring Program. All samples shall be collected and analyzed

according to the Quality Assurance Project Plan. Monitoring Reports shall be submitted with the TMDL Annual Reporting pursuant to section G2 (above) and include the following information (consistent with the approved Monitoring Plan):

1) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;
2) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;
3) Identification of and rationale for any deviations from the Quality Assurance Project Plan;
4) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable;
5) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;
6) Comparison to reference sites (if applicable), guidelines or targets;
7) Discussion of whether data collected addresses the objectives or questions of study design; and
8) Quantifiable discussion of program/study pollutant reduction effectiveness.

The Permittee may work with Central Valley Regional Water Board staff to estimate nutrient loadings from activities in the watershed. Loading estimates can be conducted using either water quality monitoring or computer modeling or a combination of the two.

TMDL Reporting Requirements:

1. By the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations and the TMDL Demonstration of Compliance Report requirements pursuant to section G2 (above). TMDL wasteload allocations are found in Attachment A, section A15.5.6.
2. The Permittee shall document progress toward attainment of the wasteload allocation in the TMDL Annual Reports pursuant to section G2 (above), the TMDL annual reporting requirements in Attachment D, and
   a. The Permittee shall document implementation of erosion and sediment best management practices. Each Annual Report shall include documentation of compliance with the above TMDL requirements.

b. The Permittee shall complete and submit Program Effectiveness Assessments as specified in Attachment D of this Order. The Permittee shall use the information gained from the Program Effectiveness Assessments to improve its program and identify new best management practices or modifications of existing best management practices.

G4.5.7 TMDL for Pyrethroid Pesticides in Sacramento and San Joaquin River Basin

Responsible Permittees: City of Roseville

Impaired Water Bodies: Curry Creek (Placer County); Kaseberg Creek (tributary to Pleasant Grove Creek in Placer County); Pleasant Grove Creek (upstream of Fiddyment Road); and Pleasant Grove Creek, South Branch

TMDL Implementation Requirements: The Permittee shall:

1. Continue to implement its Pyrethroid Management Plan, as approved by the Central Valley Water Board Executive Officer on March 4, 2021[12], which identifies management practices to reduce pyrethroid pesticides in urban runoff to the maximum extent practicable.
2. If the State Water Resources Control Board establishes a statewide water quality control plan that requires best management practices for the control of urban pesticide discharges applicable to the Permittee under the Pyrethroid TMDL, then compliance with those requirements shall be deemed compliance with the requirement to implement a Pyrethroid Management Plan.

TMDL Monitoring Requirements:

Pyrethroids Trend Monitoring Plan[13]

1. Within 18 months of the effective date of this Order, the Permittee shall develop and submit a Pyrethroids Trend Monitoring Plan and Quality Assurance Project Plan to be incorporated within the Monitoring Study Design and Implementation Schedule for Central Valley Water Board Executive Officer approval. The Permittee shall implement the Pyrethroids Trend Monitoring Plan once it has been approved by the Central Valley Water Board Executive Officer. The Quality Assurance Project Plan must be submitted as part of the Monitoring Study Design and Implementation Schedule.

[12] See SMARTS Attachment ID 3129941 for City of Roseville

[13] Central Valley Water Board Basin Plan, Section 5.1.6 Municipal Storm Water Monitoring

2. The Pyrethroids Trend Monitoring Plan shall be designed to collect the information to:

   a. Determine whether receiving waters are attaining the Pyrethroid Pesticides Water Column Additivity Numeric Targets and whether the wasteload allocations are being attained in discharges as measured at representative receiving water locations by providing pyrethroid and dissolved and particulate organic carbon concentration data;

   b. Determine whether bed sediments are attaining the Sediment Toxicity Numeric Target. Chemical analysis of the sediment for pyrethroid pesticides shall be performed if the sediment is toxic;

   c. Provide *Hyalella azteca* toxicity data to determine whether pyrethroid pesticides are causing or contributing to exceedances of the narrative water quality objective for toxicity in surface waters;

   d. Determine whether the implementation of management practices is sufficient to attain the TMDL allocations and numeric targets; and

   e. In cooperation with the Central Valley Water Board, USEPA, and Department of Pesticides Regulation, determine if monitoring and reporting programs for alternatives to pyrethroid pesticides are necessary and identify alternative insecticides for which monitoring might be appropriate with consideration of the commercial availability of acceptable analytical methods. If an alternative insecticide is identified as appropriate for monitoring, monitoring shall be performed by the Permittee to determine whether alternatives to pyrethroid pesticides are being discharged at concentrations with the potential to cause or contribute to exceedances of applicable water quality objectives.

   This information may come from the Permittee's monitoring efforts; monitoring programs conducted by state or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. The Permittee may collect data to recommend a determination as part of the Trend Monitoring Program for review by the cooperating agencies.

3. The Pyrethroids Trend Monitoring Plan shall include at a minimum monitoring of the receiving water or the Permittee's discharge as shown in Table G4.5.7, below:

Table G4.5.7: Receiving Water or MS4 Discharge Monitoring

Chemical [a]	Units	Sample Type	Minimum Sampling Frequency [e]	Minimum QA/QC Sampling Frequency [d]	Minimum Reporting Level [b,c] (ng/L)
Bifenthrin	ng/L	Grab	4/year	1/year	1.3

Chemical [a]	Units	Sample Type	Minimum Sampling Frequency [e]	Minimum QA/QC Sampling Frequency [d]	Minimum Reporting Level [b,c] (ng/L)
Cyfluthrin	ng/L	Grab	4/year	1/year	1.3
Cypermethrin	ng/L	Grab	4/year	1/year	1.7
Esfenvalerate	ng/L	Grab	4/year	1/year	3.3
Lambda-cyhalothrin	ng/L	Grab	4/year	1/year	1.2
Permethrin, Total	ng/L	Grab	4/year	1/year	10
Total Organic Carbon	mg/L	Grab	4/year	1/year	-
Dissolved Organic Carbon	mg/L	Grab	4/year	1/year	-

Table G4.5.7 Notes:

a. Concentrations are total analyte concentrations, including all isomers.
b. Numbers reported to two significant figures.
c. Analytical Methods shall not exceed the minimum reporting levels specified in Table G4.5.1. Minimum reporting levels calculated from prohibition trigger limits established by Central Valley Regional Water Board Resolution R5-2017-0057.
d. QA/QC means Quality Assurance/Quality Control. The minimum number of Quality Assurance/Quality Control samples collected shall be 20 percent of total water samples collected.
e. Samples shall be collected for three qualifying wet weather events[14] and one dry weather[15] event. If there are not three qualifying wet weather events by the end of the time period for wet weather sampling during the first year of sampling, the monitoring shall be extended until three qualifying wet weather events occur. End of Table Notes.

4. Proposed sampling locations to collect water samples from either a receiving water or downstream of the Permittee's discharge; or from the Permittees discharge itself.
5. Water column and sediment toxicity monitoring, which includes the following:

[14] Qualifying wet weather event to correspond with the qualifying wet weather event in the Permittee's Monitoring Design Study and Implementation Plan.
[15] A dry weather event is to correspond with the dry weather event in the Permittee's Monitoring Design Study and Implementation Plan.

a. Water Column Toxicity Testing – The Permittee shall meet the following acute toxicity testing requirements:

1) Monitoring Frequency – The Permittee shall perform water column toxicity testing four times per year to coincide with Table G4.5.1 sampling.

2) Sampling Types – The Permittee shall use static renewal testing. The samples shall be grab samples and be taken at the approved monitoring locations and within 24 hours of the water sampling event.

3) Test Species and Duration – The test species shall consist of *Hyalella azteca* and the duration of the test shall be 96 hours.

4) Methods – The water column toxicity testing samples shall be analyzed using EPA Method EPA-821-R-02-012 (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, October 2002, or most recent edition). Except as specified in these Provisions, water column toxicity testing shall follow the measurement quality objectives provided in the Surface Water Ambient Monitoring Program Quality Assurance Program Plan. When feasible, the Permittee shall use the Southern California Coastal Water Research Project guidance (Schiff and Greenstein, 2016) on test organism age and size for *Hyalella azteca*. For consistency with EPA Method EPA-821-R-02-012 and Environmental Laboratory Accreditation Program accreditation, *Hyalella azteca* water column toxicity testing for trend monitoring must be performed at either 20 or 25 degrees Celsius. The test temperature should be the temperature that is closest to the daily average temperature of the water body at the monitoring location on the day the sample is collected. Due to temperature conditions expected during most monitoring events, daily average water temperatures can be assumed to be closer to 20 degrees Celsius. Therefore, this test shall be performed at 20 degrees Celsius, with the following exception: If the Permittee can document that, on the sample date, the daily average water temperature of the water body at the monitoring location was 22.5 degrees Celsius or higher, the test shall be performed at 25 degrees Celsius.

5) Reporting – Toxicity trends shall be reported as evaluated using the statistical approach referred to as Test of Significant Toxicity (TST). Each sample shall be subject to determination of “Pass” or “Fail” and shall indicate “Percent Effect” from toxicity using non-diluted samples.

b. Sediment Toxicity Testing – The Permittee shall meet the following sediment toxicity testing requirements:

1) Monitoring Frequency – The Permittee shall perform sediment toxicity testing four (4) times per year to coincide with Table G4.5.1 sampling.

2) Sampling Types – The Permittee shall identify and collect sediment samples in a depositional area in receiving waters downstream of the MS4 discharge.

3) Test Species and Duration – The test species shall consist of *Hyalella azteca* and the duration shall be a 10-day test.

4) Methods – The sediment toxicity testing samples shall be analyzed using EPA method EPA-600-R-99-064 (Methods for Measuring the Toxicity and Bioaccumulation of Sediment-Associated Contaminants with Freshwater Invertebrates, USEPA, 2000, or most recent edition).

5) Test Failure – If a toxicity test does not meet all test acceptability criteria as specified in the test method, the Permittee must resample and initiate retesting as soon as possible, not to exceed 14 days following notification of test failure by the laboratory.

6) Observed Toxicity – If *Hyalella azteca* sediment toxicity is observed, sediment shall be analyzed for pyrethroid pesticides using an ELAP-certified laboratory.

6. The Permittee shall perform TST trend monitoring for one year of monitoring, including at least three qualifying wet weather events and one dry weather event. Trend monitoring shall be initiated no later than twelve (12) months after the Monitoring Design Study and Implementation Schedule is approved. If the numeric targets are exceeded in any qualifying wet weather monitoring event, the Permittee may cease monitoring additional wet weather events but must complete the dry season monitoring. If the numeric targets are exceeded in the dry weather trend monitoring event, the Permittee must proceed with qualifying wet weather monitoring trend events. A final report on the trend monitoring shall be provided with the Annual Report. Trend Monitoring can be completed as a regional group as described in an approved Monitoring Design Study and Implementation Schedule.

7. The Permittee shall use Environmental Laboratory Accreditation Program-accredited laboratories and methods for chemistry and toxicity testing. Environmental Laboratory Accreditation Program-accredited methods are acceptable for pyrethroid chemical analysis provided that the method meets the analytical capability described in Table G4.5.1. A current list of Environmental Laboratory Accreditation Program-approved laboratories and

points of contact can be found on the Central Valley Regional Water Board's website.

8. The Permittee shall implement pyrethroids monitoring five years after completion of the initial monitoring described above, and then every five years hence.
9. If the State Water Resources Control Board establishes a statewide water quality control plan for urban pesticide discharges that requires monitoring representative of the MS4's pesticide discharges that meets the goals specified in this section, compliance with those monitoring requirements shall be deemed in compliance with the monitoring requirements specified for the Pyrethroid Pesticide TMDL.

TMDL Reporting Requirements: The Permittee shall submit TMDL Annual Reports pursuant to section G2. The Permittee shall submit a Pyrethroid Pesticides TMDL Progress Report as an attachment to the TMDL Annual Report to document the management practices that have been implemented, evaluate attainment of the wasteload allocations, and identify effective actions to be taken in the future. The toxicity monitoring is, in part, intended to assist the Board in determining whether the pyrethroid numeric triggers are sufficiently protective of the most sensitive aquatic species, *Hyalella azteca*.

The Permittee shall demonstrate attainment of the TMDL wasteload allocations and the TMDL Demonstration of Compliance Report pursuant to section G2 (above). The TMDL requires attainment of the pyrethroid numeric targets as soon as practicable but not later than April 22, 2039.

G4.6 LAHONTAN WATER BOARD

G4.6.1 TMDL for Sediment in the Middle Truckee River Watershed, Placer, Nevada and Sierra Counties

Responsible Permittees: County of Placer, Town of Truckee

Impaired Water Body: Truckee River

TMDL Implementation Requirements: The Permittee shall develop, implement, and report best management practices as follows:

1. Road sand application best management practices and recovery tracking. Road sand shall be applied using best management practices and recovered to the maximum extent practicable. Amounts of road abrasives and de-icing agents applied and recovered must be monitored and reported annually.
2. Dirt roads maintained or decommissioned. Identified dirt roads with inadequate erosion control structures shall be rehabilitated and maintained or decommissioned. The Permittee shall focus on dirt roads with high potential for sediment delivery to surface waters (e.g., within 200 feet of watercourse). The number of miles of roads inspected, proposed corrective actions, and effectiveness.
3. Legacy sites restoration and best management practices implementation. Identified legacy sites shall be restored or stormwater best management practices shall be implemented to prevent erosion and sedimentation to surface waters. A prioritized list of legacy sites should be maintained and updated periodically as new information is generated. Activities completed to address legacy sites should be reported annually.

Reporting Requirements: The Permittee shall report its status of TMDL implementation and monitoring in its TMDL Annual Reports, described in section G2, above, and further defined in the section titled Annual TMDL Compliance Report in Attachment D.

G4.7 COLORADO RIVER BASIN WATER BOARD

The Colorado River Basin Region does not have any TMDLs applicable to Small MS4s at the time of adoption of this Order.

G4.8 SANTA ANA WATER BOARD

G4.8.1 San Diego Creek, Upper and Lower Newport Bay, Revised Organochlorine Compounds TMDL [16]

Responsible Permittees: Orange County Fair & Event Center; University of California, Irvine

Impaired Water Bodies: San Diego Creek, Upper and Lower Newport Bay

TMDL Implementation Requirements: The Permittee shall carry out an effective portfolio of projects and programs for the control of organochlorine compounds in stormwater and authorized non-stormwater runoff from its MS4s. The Permittee shall demonstrate compliance through the following actions:

1. Within 1 year of the effective date of this Order, submit for review and consideration of approval by the Santa Ana Water Board Executive Officer, a region-specific TMDL Compliance Plan that provides the Permittee's strategies to comply with the wasteload allocations in the Organochlorine Compounds TMDLs for San Diego Creek, Upper and Lower Newport Bay, and Rhine Channel. Upon approval of the TMDL Compliance Plan, the Permittee shall immediately implement all terms and provisions of the approved TMDL Compliance Plan; or,
2. Within 1 year of the effective date of this Order, submit notification for acknowledgement by the Santa Ana Water Board of a commitment to implement, or cause to be implemented on its behalf (e.g., separate implementing entity), joint cooperative implementation actions, monitoring actions and special studies with other responsible agencies, following an approved water quality monitoring plan.
    a. Joining a Regional Monitoring Program does not excuse the Permittee from compliance with the monitoring requirements in Attachment D or E (as applicable) of this Order. This includes, but is not limited to, Permittee annual report certification and submittal to the Santa Ana Water Board via SMARTS no later than October 15 of each year.

TMDL Reporting Requirements:

1. The compliance deadline of December 31, 2020, has passed. Therefore, by the effective date of this Order, the Permittee shall demonstrate attainment of the TMDL wasteload allocations (as specified in the Fact Sheet) pursuant

[16] Santa Ana Water Board, Basin Plan, Chapter 6, section 4.b.3.

to section G2 (above) and the TMDL Demonstration of Compliance Report requirements in Attachment D and E of this Order.

2. If the Permittee cannot demonstrate compliance with the TMDL wasteload allocation by the deadlines and believes additional time to comply with the wasteload allocation is necessary, the Permittee may request a Time Schedule Order pursuant to the requirements in section G2 (above) and in Request for Time Schedule Order in Attachments D or E (as applicable). The Permittee shall submit its request for a Time Schedule Order to the Santa Ana Water Board Executive Officer.
3. By October 15 of each year, the Permittee shall submit a TMDL Annual Report pursuant to section G2 (above) and Attachments D or E (as applicable).

G4.8.2 Lake Elsinore and Canyon Lake Nutrient TMDL

Responsible Permittee: March Air Reserve Base

Impaired Water Bodies: Canyon Lake, Lake Elsinore

TMDL Implementation Requirements: The Permittee shall implement the following actions:

1. March Air Reserve Base has already committed to cooperative implementation actions, monitoring actions, special studies and implementation actions jointly with other responsible agencies as an active paying member of the Lake Elsinore/Canyon Lake TMDL Task Force. March Air Reserve Base shall continue with those actions in accordance with paragraph I.H. of the Agreement to Form the Lake Elsinore and Canyon Lake TMDL Task Force, dated June 18, 2012.
2. If the Santa Ana Regional Water Board determines that March Air Reserve Base is not fulfilling its Lake Elsinore/Canyon Lake Task Force obligations or if March Air Reserve Base chooses to opt out of the cooperative approach with the TMDL Task Force for implementation actions, monitoring actions, and/or special studies, March Air Reserve Base shall provide formal notification to the Santa Ana Regional Water Board. March Air Reserve Base will then be required to conduct the following activities:
    a. Within 30 days of such notification, March Air Reserve Base shall submit a proposed update of the March Air Reserve Base Storm Water Pollution Prevention Plan to address nutrient discharges;
    b. Within 30 days of such notification, March Air Reserve Base shall submit a proposed March Air Reserve Base specific nutrient monitoring program. This monitoring program must be prepared and executed in a manner that attainment of wasteload allocations will be determined. The

monitoring program must be consistent with the most current, Santa Ana Regional Water Board-approved, Lake Elsinore/Canyon Lake TMDL Task Force monitoring plan;

c. Within 60 days of such notification, March Air Reserve Base shall submit a proposed water quality monitoring program to evaluate the impairment status of Lake Elsinore and Canyon Lake.

TMDL Reporting Requirements:

1. By October 15 of each year, the Permittee shall submit a TMDL Annual Report pursuant to section G2 (above) and Attachments E.
2. The TMDL wasteload allocation compliance date of December 31, 2020, has passed. Therefore, by the effective date of this Order, the Permittee shall submit a TMDL Demonstration of Compliance Report pursuant to the requirements in section G2 (above) and Attachment E.
3. If the Permittee cannot demonstrate compliance with the TMDL wasteload allocation by the deadlines and believe additional time to comply with the final wasteload allocations is necessary, the Permittee may request a Time Schedule Order from the Santa Ana Water Board pursuant to section G2 (above) and Attachment E.

G4.8.3 Middle Santa Ana River Watershed Bacterial Indicator TMDL

Responsible Permittees: California Institute for Men; California Institute for Women; California Rehabilitation Center; University of California, Riverside

Impaired Water Bodies: Chino Creek, Mill Creek, Prado Park Lake, Reach 3, Santa Ana River

TMDL Implementation Requirements: The Permittee shall implement the following actions:

1. Monitoring Program**:** By the effective date of this Order, the Permittee shall submit a watershed-wide attainment monitoring and facility specific bacterial indicator region-specific Monitoring Program that is adequate to determine attainment of the dry and wet season wasteload allocation. The Permittee may alternatively participate in a stakeholder group monitoring program for the same purpose. The Permittee shall submit the region-specific Monitoring Program to the Santa Ana Water Board Executive Officer for review and consideration of approval.
2. Bacterial Indicator Reduction Plan. By the effective date of this Order, the Permittee shall either: a) develop a facility-specific Bacterial Indicator Reduction Plan or b) implement a watershed-based Bacterial Indicator

Reduction Plan (within the Santa Ana River watershed) that has been approved by the Santa Ana Water Board Executive Officer.

3. For the Permittee that chooses to develop facility-specific Bacterial Indicator Reduction Plans, the following applies:

   a. Dry Season Bacterial Indicator Reduction Plan – Develop a facility specific Bacterial Reduction Plan that details the plan and schedule for achieving the Dry Season Bacterial Indicator wasteload allocations as soon as feasible.

   b. Wet Season Bacterial Indicator Reduction Plan – Develop a facility specific Bacterial Reduction Plan that details the plan and schedule for achieving the Wet Season Bacterial Indicator wasteload allocations by December 31, 2025.

   c. The Dry Season and Wet Season Bacterial Indicator Reduction Plans must include the following:

      1) The specific Best Management Practices implemented to reduce the concentration of indicator bacteria from the facility and the water quality improvements expected to result from these best management practices.

      2) Any specific regional treatment facilities and the locations where such facilities will be built to reduce the concentration of indicator bacteria discharged from the facility and the expected water quality improvements to result when complete.

      3) The technical documentation used to conclude that the Bacterial Indicator Reduction Plan, once fully implemented, is expected to achieve attainment of either the dry season or wet season urban wasteload allocation for indicator bacteria by the specified attainment date.

      4) A detailed schedule for implementing the Bacterial Indicator Reduction Plan. The schedule must identify measurable and verifiable milestones to assess satisfactory progress toward meeting the dry and wet season wasteload allocations.

      5) The specific metrics that will be established to demonstrate the effectiveness of the Bacterial Indicator Reduction Plan.

      6) Detailed descriptions of any additional best management practices planned, and the time required to implement those best management practices, in the event that data from the watershed-wide water quality monitoring program indicate that water quality objectives for indicator bacteria are still being exceeded after the Bacterial Indicator Reduction Plan is fully implemented.

TMDL Reporting Requirements:

1. Dry Weather Wasteload Allocations. To demonstrate attainment of the Dry Weather wasteload allocations, the Permittee shall submit a TMDL Demonstration of Compliance Report as soon as feasible. The report shall follow the requirements pursuant to section G2 (above) and the TMDL Demonstration of Compliance Report requirements in Attachments D or E (as applicable).
2. Wet Weather Wasteload Allocations. By December 31, 2025, the Permittee shall demonstrate attainment of the Wet Weather wasteload allocations by submitting a TMDL Demonstration of Compliance Report pursuant to section G2 (above) and the TMDL Demonstration of Compliance Report requirements in Attachments E.
3. By October 15 of each year, the Permittee shall submit a TMDL Annual Report pursuant to section G2 (above) and Attachment E.

G4.8.4 San Diego Creek and Upper Newport Bay Diazinon and Chlorpyrifos TMDL

Responsible Permittees: Orange County Fair & Event Center; University of California, Irvine

Impaired Water Bodies: San Diego Creek and Upper Newport Bay

TMDL Implementation Requirements: The Permittee shall carry out an effective portfolio of projects and programs for the control of diazinon and chlorpyrifos in stormwater and authorized non-stormwater runoff from its MS4s. The Permittee shall demonstrate compliance through the following actions:

1. Within 1 year of the effective date of this Order, submit for review and consideration of approval by the Santa Ana Water Board Executive Officer, a region-specific TMDL Compliance Plan that provides the Permittee's strategies to comply with the wasteload allocations in the Diazinon & Chlorpyrifos TMDLs for the Upper Newport Bay and San Diego Creek (see Attachment A, section A15.8.4 for the wasteload allocation). Upon approval of the TMDL Compliance Plan, the Permittee shall immediately implement all terms and provisions of the approved TMDL Compliance Plan; or,
2. Within 1 year of the effective date of this Order, submit notification for acknowledgement by the Santa Ana Water Board of a commitment to implement, or cause to be implemented on its behalf (separate implementing entity), joint cooperative implementation actions, monitoring actions and special studies with other responsible agencies, following an approved water quality monitoring plan.

a. Joining a Regional Monitoring Program does not excuse the Permittee from compliance with the Water Quality Monitoring requirements in Attachment E of this Order.

TMDL Reporting Requirements: The compliance date of December 1, 2007, has passed.

1. By October 15 of each year, the Permittee shall submit a TMDL Annual Report pursuant to section G2 (above) and Attachment E.
2. By the effective date of this Order, the Permittee shall submit a TMDL Demonstration of Compliance Report pursuant to section G2 (above) and Attachments D or E (as applicable).

G4.8.5 San Diego Creek and Newport Bay Toxic Pollutants (Metals) TMDL

Responsible Permittees: Orange County Fair & Event Center; University of California, Irvine

Impaired Water Bodies: San Diego Creek and Newport Bay

TMDL Implementation Requirements: The Permittee shall carry out an effective portfolio of projects and programs for the control of toxic pollutants (metals) in stormwater and authorized non-stormwater runoff from its MS4s. The Permittee shall demonstrate compliance through the following actions:

1. Within 1 year of the effective date of this Order, submit for review and consideration of approval by the Santa Ana Water Board Executive Officer, a region-specific TMDL Compliance Plan that provides the Permittee's strategies to comply with the wasteload allocations, which are provided in Attachment A, section A15.8.5 of this Order. Upon approval of the TMDL Compliance Plan, the Permittee shall immediately implement all terms and provisions of the approved TMDL Compliance Plan; or,
2. Within 1 year of the effective date of this Order, submit notification for acknowledgement by the Santa Ana Water Board of a commitment to implement, or cause to be implemented on its behalf (separate implementing entity), joint cooperative implementation actions, monitoring actions and special studies with other responsible agencies, following an approved water quality monitoring plan.

   a. Joining a Regional Monitoring Program does not excuse the Permittee from compliance with the Water Quality Monitoring requirements in Attachment E of this Order.

TMDL Reporting Requirements:

1. By the effective date of this Order, the Permittee shall submit a TMDL Demonstration of Compliance Report pursuant to section G2 (above) and Attachment E.
2. If the Permittee cannot demonstrate compliance with the TMDL wasteload allocation by the deadline and believes additional time to comply with the final wasteload allocations is necessary, the Permittee may request a Time Schedule Order from the Santa Ana Water Board pursuant to section G2 (above) and Attachments E.

G4.8.6 Selenium TMDLs in Freshwater for Newport Bay Watershed

Responsible Permittees: Orange County Fair & Event Center; University of California, Irvine

Impaired Water Body: Newport Bay Watershed

TMDL Implementation Requirements: The Permittees shall implement an effective portfolio of projects and programs for the control of selenium in stormwater and authorized non-stormwater runoff from its MS4s. Permittees shall demonstrate compliance through the following actions:

1. Within 1 year of the effective date of this Order, submit notification for acknowledgement by the Santa Ana Water Board of a commitment to implement, or cause to be implemented on its behalf (separate implementing entity), joint cooperative implementation actions, monitoring actions and special studies with other responsible agencies, following an approved water quality monitoring plan: or
2. Within 1 year of the effective date of this Order, submit for review and consideration of approval by the Santa Ana Water Board Executive Officer, a region-specific TMDL Compliance Plan that provides the Permittees' strategies to comply with the wasteload allocations, which are provided in Attachment A section A15.8.8 of this Order. Upon approval of the TMDL Compliance Plan, the Permittees shall immediately implement all terms and provisions of the approved TMDL Compliance Plan.

   Please note that joining a Regional Monitoring Program does not excuse Permittees from compliance with the Water Quality Monitoring requirements in Attachments E of this Order.

TMDL Reporting Requirements: The compliance date is June 20, 2049. According to the Water Quality Report Card released September 2021, water quality data and/or other indicators demonstrate improvement, but the final water quality targets are not consistently being met. Therefore,

1. By October 15 of each year, the Permittees shall submit a TMDL Annual Compliance Report pursuant to section G2 (above) and Attachment E.
2. If the Permittee has evidence to demonstrate compliance with the final wasteload allocations for this TMDL, the Permittees shall submit a TMDL Demonstration of Compliance Report pursuant to section G2 (above) and Attachments E.
3. The Permittee shall attain compliance with the TMDL wasteload allocations by the compliance date.
4. The Permittee shall submit a TMDL Demonstration of Compliance Report pursuant to section G2 (above) and Attachment E by the compliance date.

G4.9 SAN DIEGO WATER BOARD TOTAL MAXIMUM DAILY LOADS

G4.9.1 TMDL for Sediment in Los Peñasquitos Lagoon

Responsible Permittees: Marine Corps Air Station Miramar; North County Transit District; University of California, San Diego; Veterans Affairs San Diego Healthcare System

Impaired Water Body: Los Peñasquitos Lagoon

Final Compliance Deadline: By July 14, 2034, Permittees shall demonstrate attainment of the TMDL wasteload allocations as specified in Attachment E, section E7.1 (items a through g) and below.

Wasteload Allocations:

1. The TMDL sediment wasteload allocation of 2,580 tons/year is assigned collectively to all responsible permittees identified in the TMDL.
2. Permittee's discharges shall not prohibit the sustainable restoration of tidal and non-tidal saltmarsh vegetation of at least 346 acres in Los Peñasquitos Lagoon; and
3. The TMDL watershed sediment wasteload allocation is assigned to the Phase II MS4 permittees identified above.

TMDL Implementation Requirements: Permittees shall take the following actions to meet the requirements of this TMDL:

1. Within 12 months of the effective date of this Order, Permittees shall update and implement their Storm Water Pollution Prevention Plan including additional measures necessary to achieve reductions in sediment by the final TMDL compliance deadline. The Storm Water Pollution Prevention Plan shall include short term and long-term best management practices strategies appropriate for achieving the TMDL wasteload allocations.
2. Within 12 months of the effective date of this Order, Permittees shall submit a TMDL Monitoring Compliance Plan describing activities that will be conducted to demonstrate compliance with the TMDL numeric targets through one or more of the criteria in section E7.1.3 (items a through g) in Attachment E for review and consideration of approval by the San Diego Water Board Executive Officer. Permittees are encouraged to collaborate with other TMDL permittees who discharge to the same receiving water body to develop and submit the TMDL Monitoring Compliance Plan. The TMDL Monitoring Plan shall be submitted by each Permittee and must include the following.
    a. During each wet season (October 1 through April 30), collect a minimum of one wet weather sample on a monthly frequency from all

outfalls/discharge locations or one or more representative outfalls/discharge locations within its facility that discharge to Los Peñasquitos Lagoon.

b. Representative outfalls/discharge locations must be approved by the San Diego Water Board Executive Officer as part of the Monitoring Compliance Plan.

c. Monitoring shall include representative flow rates and total suspended solids concentrations.

4. Submit a TMDL Compliance Report annually via SMARTS in accordance with the sections titled Annual TMDL Compliance Reporting, Water Quality Monitoring, and Program Effectiveness in Attachments E, and include additional reporting requirements as specified below that demonstrates progress towards attainment of final wasteload allocation through meeting one or more of the criteria in Attachment E, section E7.1 (items a through g). The TMDL Compliance Annual Report shall include the following:

a. Assessment of Sediment Loading. Sediment loading from the Permittees discharge shall be calculated using flow rate results and total suspended solids concentrations from monitoring conducted at the Permittees outfalls/discharge locations.

b. Reporting of the estimated sediment loading (tons/wet season) from its facilities to the Los Peñasquitos Lagoon for the entire wet season (i.e. October 1 to April 30).

c. Comparison of sediment loadings to the TMDL wasteload allocations. Because the TMDL wasteload allocations are assigned to multiple Permittees, Permittees shall compare its sediment loadings to its proportional load responsibility from the total watershed wasteload allocation. Permittees shall assess whether its sediment loadings met or exceeded its proportional load responsibility. Permittees shall assess whether its sediment loadings met or exceeded its proportional load responsibility from the watershed wasteload allocation during the wet season.

5. Permittees that can demonstrate that their discharges are not contributing to an exceedance of an applicable wasteload allocation may request a monitoring reduction modification to the monitoring required above. Monitoring reduction modification requests must be submitted to the San Diego Water Board Executive Officer for approval. The Permittee shall have obtained a minimum of two consecutive years of monitoring data demonstrating such compliance. Upon approval, the Permittee shall comply with the approved monitoring reduction requirements.

6. By July 14, 2034, Permittees shall either:

a. Submit a final wet weather TMDL Demonstration of Compliance Report to the San Diego Water Board Executive Officer for review and consideration of approval. The TMDL Demonstration of Compliance Report shall detail the sediment reduction activities conducted to demonstrate compliance with the wet weather wasteload allocations through one or more of the criteria in Attachment E, sections E7.1 (items a through g;

   Or alternatively

b. Request a time schedule order, as specified in Attachment E, section E7.2.

G4.9.2 TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region[17]

Responsible Permittees: 22nd District Agricultural Association; California State University, San Marcos; Camp Pendleton; Marine Corps Air Station Miramar; North County Transit District; San Diego Metropolitan Transit System; San Diego State University; University of California, San Diego; Veterans Affairs San Diego Healthcare System

Impaired Water Bodies: Chollas Creek, Laguna/San Joaquin, Miramar Creek, San Clemente, San Diego River, San Dieguito River, San Juan, San Luis Rey, San Marcos, Scripps HA, Tecolote HA

Final Compliance Deadlines:

1. By April 4, 2021, the Permittees are required to demonstrate attainment of the dry weather wasteload allocations shown in Fact Sheet section 14.9.2. The compliance deadline has passed.
2. Within 12 months of the effective date of this Order, Permittees shall update and implement the Stormwater Pollution Prevention Plan as specified below.
3. By April 4, 2031, Permittees are required to demonstrate compliance with wet weather allocations and/or numeric targets shown in Fact Sheet section A14.9.2.

[17] San Diego Water Board, Basin Plan, Chapter 7

TMDL Implementation Requirements:

Permittees shall attain compliance with wasteload allocations and numeric targets for indicator bacteria in the Permittee's discharges from its MS4 and/or receiving water. Tables G4.9.1, G4.9.2(a), G4.9.2(b), and G4.9.2(c) provide the receiving waters, wasteload allocations, and numeric targets for beaches and creeks.

Information and data collected under the San Diego River investigative order (Order R9-2019-0014) may be utilized to fulfill requirements and demonstrate compliance with the Revised TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region. Permittee efforts that demonstrate the attainment of the wasteload allocation may be included with TMDL Demonstration of Compliance Report (section G2, above) in accordance with Attachment E, section E7.1.3 (a-g).

Permittees shall take the following actions to meet the requirements of this TMDL:

1. Final Dry Weather Demonstration of Compliance – Permittees were required to demonstrate attainment of the final Dry Weather wasteload allocation to the San Diego Water Board Executive Officer for review and consideration of approval by April 4, 2021. If the Permittee has not received approval of Final Demonstration of Compliance, the Permittee shall comply with the requirements of this section. Since compliance with the dry weather wasteload allocations is past due, Permittees may either:
    a. Submit a TMDL Demonstration of Compliance Report demonstrating attainment of the dry weather wasteload allocations and/or numeric targets by complying with one or more of the criteria in Attachment E, E7.1.3 (items a through g), or
    b. Request a time schedule order from the San Diego Water Board Executive Officer as specified in Attachment E, section E7.2.
2. Stormwater Pollution Prevention Plan – Within 12 months of the effective date of this Order, Permittees shall update and implement the existing Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan shall include:
    a. Measures necessary to achieve bacteria reductions in fecal coliform, *Enterococcus*, and total coliform to meet dry and wet weather wasteload allocations and/or numeric targets by the final compliance deadlines; and
    b. Short term and long-term best management practices strategies appropriate for achieving the TMDL wasteload allocations or numeric targets and bacteria reduction.

3. TMDL Monitoring Compliance Plan –

   The following requirements only apply if the Permittee has received notice from the San Diego Water Board that they are considered a significant source of pollutants. In the absence of that, compliance shall be demonstrated by submitting a report as part of the Demonstration of Compliance outlining the bacteria control measures in their stormwater management plan and explaining why they constitute Maximum Extent Practicable.

   Within 12 months of the effective date of this Order, Permittees shall submit a TMDL Monitoring Compliance Plan describing activities that will be conducted to demonstrate compliance with the numeric targets through one or more of the compliance options in Attachment E, section E7.1.3 (items a through g) for review and consideration of approval by the San Diego Water Board Executive Officer. Permittees are encouraged to collaborate with other bacteria TMDL permittees who discharge to the same receiving water body in order to develop and submit the TMDL Monitoring Compliance Plan. The TMDL Monitoring Plan shall be submitted by each Permittee and must include the following:

   a. Identify the Permittee's discharge location by watershed, waterbody, and/or segment or area as listed in Table G4.9.1.

   b. Monitor all outfalls/discharge locations or one or more representative outfall/discharge location within its facility that discharge to the applicable receiving waterbody listed Table G4.9.1, which includes beaches and creeks.

   c. Representative outfalls/discharge locations must be approved by the San Diego Water Board Executive Officer as part of the Monitoring Compliance Plan.

   d. For discharges to a beach segment of an applicable receiving waterbody, monitor for total coliform, fecal coliform, *Enterococcus* and flow rate.

   e. For discharges to a creek segment, monitor for fecal coliform, *Enterococcus*, and flow rate.

   f. During each dry season (May 1 through September 30), collect a minimum of 5 discharge samples, including at least one wet weather day sample, from the same outfalls/discharge locations for at least one 30-day period. Wet and dry weather day samples may be collected during each 30-day period sampled. In the event no flow is observed from the outfall during one or more of the five minimum samples required for a 30-day geometric mean calculation, the 30-day geometric mean would not be calculated, and potentially no 30-day geometric

means would be calculated for that entire dry season. The Permittee shall provide documentation to support no flow observations at all of the outfalls where no samples are collected during a sample collection event to demonstrate collection of the minimum number of samples required during the dry season was attempted.

g. During each wet season (October 1 through April 30), collect a minimum of 5 samples, including at least one wet weather day sample, from the same outfalls/discharge locations for at least one 30-day period. Wet and dry weather day samples may be collected during each 30-day period sampled.

4. TMDL Demonstration of Compliance Report – By April 4, 2031, Permittees shall submit a final wet weather TMDL Demonstration of Compliance Report to the San Diego Water Board Executive Officer for review and consideration of approval. The TMDL Demonstration of Compliance Report shall detail the bacteria reduction activities conducted to demonstrate compliance with the wet weather wasteload allocations and/or numeric targets through one or more of the criteria in Attachment E, section E7.1.3 (items a through g).

5. TMDL Annual Reports – Permittees shall submit a TMDL Compliance Annual Report in accordance with the sections titled Annual TMDL Compliance Reporting, Water Quality Monitoring, and Program Effectiveness in Attachments E and the reporting requirements below that demonstrates progress towards attainment of final wasteload allocation through meeting one or more of the criteria in Attachment E, section E7.1 (items a through g). The TMDL Compliance Annual Report shall include the following:

   a. Demonstration of Compliance – Demonstration of attainment of dry weather final wasteload allocations and/or numeric targets and progress towards attainment of wet weather final wasteload allocations and/or numeric targets through meeting one or more of the criteria in section E7.1 (items a through g), and

   b. Monitoring Results – Assessment of monitoring results for each reporting year. This shall include an analysis of the dry weather and wet weather monitoring data to assess attainment of the dry weather and wet weather TMDL wasteload allocations and numeric targets.

   c. Compliance with Wasteload Allocations – Assessment of compliance with wasteload allocations. This includes:

      1) Calculated bacteria loadings using flow rate results and bacteria densities from monitoring conducted at the Permittees outfalls/discharge locations using the following equation:

Bacteria Loading = flow rate (volume/time) x Bacteria density (number of colonies/volume)

2) Assessment of Bacteria Loadings – An assessment of the Permittee's bacteria loadings (MPN/year) during Dry Weather and Wet Weather for the reporting year. This includes:

   a) For Permittees who discharge to a beach segment, fecal coliform and *Enterococcus*.

   b) For Permittees who discharge to a creek segment, total coliform, fecal coliform and *Enterococcus*.

3) Comparison of Bacteria Loading to Receiving Water Wasteload Allocations – A comparison of the Permittee's discharge bacteria loadings to the receiving water body wasteload allocations and an assessment of whether the Permittee's bacteria loadings meet or exceed the assigned wasteload allocations for the applicable receiving water body during the reporting year.

4) Assessment of Numeric Targets – Numeric targets consist of the numeric Water Quality Objectives from the Basin Plan and/or Ocean Plan and an allowable exceedance frequency. The numeric targets for the wet weather TMDLs consist of the REC-1 single sample maximum Water Quality Objectives and a 22 percent allowable exceedance frequency. The numeric targets for dry weather TMDLs consist of the REC-1[18] 30-day geometric mean Water Quality Objectives and a 0 percent allowable exceedance frequency. Numeric Targets are provided in Tables G4.9.2(a) and G4.9.2(b) and the assessment includes:

   a) Dry Weather exceedance frequencies shall be calculated as follows:

      i. The single sample maximum exceedance frequency shall be calculated by dividing the number of dry weather day samples that exceed the single sample maximum numeric targets by the total number of dry weather day samples collected during the dry and wet seasons.

      ii. The exceedance frequency shall be calculated by dividing the number of geometric means that exceed the geometric mean numeric targets by the total number of geometric means calculated from samples collected during the dry season.

[18] Water Contact Recreation (REC-1) - Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible.

b) Wet Weather exceedance frequencies shall be calculated as follows:

i. If only one sample is collected for a storm event, the bacteria density for every wet weather day associated with that storm event shall be assumed to be equal to the results from the one sample;

ii. If more than one sample is collected for a storm event, but not on each day of the storm event, the bacteria density for all wet weather days of the storm event not sampled shall be assumed to be equal to the highest bacteria density result reported from the samples;

iii. If there are any storm events not sampled, the bacteria density for every wet weather day of those storm events shall be assumed to be equal to the average of the highest bacteria densities reported from each storm event sampled;

iv. The single sample maximum exceedance frequency shall be calculated by dividing the number of wet weather days that exceed the single sample maximum numeric targets by the total number of wet weather days during the wet season; and

v. Wet weather monitoring data shall be used to calculate wet weather 30-day geometric means. Wet weather 30-day geometric means shall be calculated using a minimum of 5 samples, including at least one wet weather day sample, that were collected during a 30-day period. Additional geometric means may be calculated for each 30-day period sufficiently sampled. The exceedance frequency of the wet weather 30-day geometric mean shall be calculated by dividing the number of 30-day geometric means that exceed the geometric mean numeric targets by the total number of geometric means calculated from samples collected during the wet season.

6. Monitoring Reduction – Permittees that can demonstrate that its discharges are not contributing to an exceedance of an applicable wasteload allocation or numeric target may request a monitoring reduction modification to the monitoring required above. Monitoring reduction modification requests must be submitted to the San Diego Water Board Executive Officer for approval. The Permittee shall have obtained a minimum of two consecutive years of monitoring data demonstrating such compliance. Upon approval, the Permittee shall comply with the approved monitoring reduction requirements.

Table G4.9.1 Impaired Beaches and Creeks for Wasteload Allocation Implementation

Watershed	Waterbody	Segment or Area
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Cameo Cove at Irvine Cove Dr. – Riviera Way
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	at Heisler Park – North
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	at Main Laguna Beach
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Laguna Beach at Ocean Avenue
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Laguna Beach at Laguna Avenue
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Laguna Beach at Cleo Street
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Arch Cove at Bluebird Canyon Road
San Joaquin Hills /Laguna Beach Hydrologic Subareas (901.11 and 901.12)	Pacific Ocean Shoreline	Laguna Beach at Dumond Drive
Aliso (Hydrologic Subarea 901.13)	Pacific Ocean Shoreline	Laguna Beach at Lagunita Place/Blue Lagoon Place at Aliso Beach
Aliso (Hydrologic Subarea 901.13)	Aliso Creek	The entire reach (7.2 miles) and associated tributaries Aliso Hills Channel, English Canyon Creek, Dairy Fork Creek, Sulphur Creek, and Wood Canyon Creek
Aliso (Hydrologic Subarea 901.13)	Aliso Creek (mouth)	At creek mouth
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	Aliso Beach at West Street
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	Aliso Beach at Table Rock Drive
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	1000 Steps Beach at Pacific Coast Hwy at Hospital (9th Avenue)
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	1000 Steps Beach at Pacific Coast Hwy at Salt Creek (large outlet)
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	Salt Creek Beach at Salt Creek service road
Dana Point Hydrologic Subarea (901.14)	Pacific Ocean Shoreline	Salt Creek Beach at Dana Strand Road
Lower San Juan Hydrologic Subarea (901.27)	Pacific Ocean Shoreline	At San Juan Creek
Lower San Juan Hydrologic Subarea (901.27)	San Juan Creek	Lower 1 mile

Watershed	Waterbody	Segment or Area
Lower San Juan Hydrologic Subarea (901.27)	San Juan Creek (mouth)	At creek mouth
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	at Poche Beach (large outlet)
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	Ole Hanson Beach Club Beach at Pico Drain
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at Linda Lane
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente State Beach at Riviera Beach
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at Mariposa Street
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at Cypress Shores
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at Lifeguard Headquarters
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	Under San Clemente Municipal Pier
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at El Portal Street Stairs
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at South Linda Lane
San Clemente Hydrologic Area (901.30)	Pacific Ocean Shoreline	San Clemente City Beach at Trafalgar Canyon (Trafalgar Lane)
San Luis Rey Hydrologic Unit (903.00)	Pacific Ocean Shoreline	at San Luis Rey River Mouth
San Marcos Hydrologic Area (904.50)	Pacific Ocean Shoreline	at Moonlight State Beach
San Dieguito Hydrologic Unit (905.50)	Pacific Ocean Shoreline	at San Dieguito Lagoon Mouth
Miramar Reservoir Hydrologic Area (906.10)	Pacific Ocean Shoreline	Torrey Pines State Beach at Del Mar (Anderson Canyon)
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	La Jolla Shores Beach at El Paseo Grande
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	La Jolla Shores Beach at Caminito Del Oro
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	La Jolla Shores Beach at Vallecitos
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	La Jolla Shores Beach at Avenue de la Playa
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	at Casa Beach, Children's Pool
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	South Casa Beach at Coast Blvd.
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Whispering Sands Beach at Ravina Street
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Windansea Beach at Vista de la Playa
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Windansea Beach at Bonair Street
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Windansea Beach at Playa del Norte
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Windansea Beach at Palomar Avenue.
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	at Tourmaline Surf Park
Scripps Hydrologic Area (906.30)	Pacific Ocean Shoreline	Pacific Beach at Grand Avenue.
Tecolote Hydrologic Area (906.5)	Tecolote Creek	The entire reach and associated tributaries

Watershed	Waterbody	Segment or Area
Mission San Diego/Santee Hydrologic Subareas (907.11 and 907.12)	San Diego River, Lower	Lower 6 miles
Mission San Diego/Santee Hydrologic Subareas (907.11 and 907.12)	Pacific Ocean Shoreline	At San Diego River Mouth at Dog Beach
Mission San Diego/Santee Hydrologic Subareas (907.11 and 907.12)	Forrester Creek	Lower 1 mile
Chollas Hydrologic Subarea (908.22)	Chollas Creek	Bottom 1.2 miles

Table G4.9.2(a). Numeric Targets – Final Receiving Water Limitations Expressed as Bacteria Densities and Allowable Exceedance Frequencies for Beaches

Constituent	Wet Weather Days Single Sample Maximum [a,b] (MPN/100 mL)	Wet Weather Days Single Sample Maximum Allowable Exceedance Frequency [c]	Dry Weather Days 30-Day Geometric Mean [b] (MPN/100 mL)	Dry Weather Days 30-Day Geometric Mean Allowable Exceedance Frequency
Total Coliform	10,000	22%	1,000	0%
Fecal Coliform	400	22%	200	0%
Enterococcus	104	22%	35	0%

Table Notes:

a. During wet weather days, only the single sample maximum receiving water limitations are required to be achieved.

b. During dry weather days, the single sample maximum and 30-day geometric mean receiving water limitations are required to be achieved.

c. The 22% single sample maximum allowable exceedance frequency only applies to wet weather days. For dry weather days, the dry weather bacteria densities must be consistent with the single sample maximum REC-1 water quality objectives in the Ocean Plan. End Table Notes

Table G4.9.2(b). Numeric Targets – Final Receiving Water Limitations Expressed as Bacteria Densities and Allowable Exceedance Frequencies for Creeks

Constituent	Wet Weather Days Single Sample Maximum (MPN/100 mL)	Wet Weather Days Single Sample Maximum Allowable Exceedance Frequency [c]	Dry Weather Days 30-Day Geometric Mean[b] (MPN/100mL)	Dry Weather Days 30-Day Geometric Mean Allowable Exceedance Frequency
Fecal Coliform	400	22%	200	0%
Enterococcus	61 (104)	22%	33	0%

Table Notes:

[a]. During wet weather days, only the single sample maximum receiving water limitations are required to be achieved.

[b]. During dry weather days, the single sample maximum and 30-day geometric mean receiving water limitations are required to be achieved.

[c]. The 22% single sample maximum allowable exceedance frequency only applies to wet weather days. For dry weather days, the dry weather bacteria densities must be consistent with the single sample maximum REC-1 water quality objectives in the Basin Plan.

[d]. A single sample maximum of 104 MPN/100 ml for *Enterococcus* may be applied as a receiving water limitation for creeks, instead of 61 MPN/100 mL, if one or more of the creeks addressed by these TMDLs (San Juan Creek, Aliso Creek, Tecolote Creek, Forrester Creek, San Diego River, and/or Chollas Creek) is designated with a "moderately to lightly used area" or less frequent usage frequency in the Basin Plan. Otherwise, the single sample maximum of 61 MPN/100 mL for *Enterococcus* must be used to assess compliance with the allowable exceedance frequency. End Table Notes.

Table G4.9(c). Final Concentration-Based Effluent Limitations Expressed as Bacteria Densities and Allowable Exceedance Frequencies in MS4 Discharges to the Water Body

Constituent	Single Sample Maximum[a,b]	Single Sample Maximum Allowable Exceedance Frequency[c]	30-Day Geometric Mean[b] (MPN/100 mL)	30-Day Geometric Mean Allowable Exceedance Frequency
Total Coliform[d]	10,000	22%	1,000	0%
Fecal Coliform	400	22%	200	0%
Enterococcus	104[e] / 61[f]	22%	35[e] / 33[f]	0%

Table Notes:

[a]. During wet weather days, only the single sample maximum effluent limitations are required to be achieved.

b. During dry weather days, the single sample maximum and 30-day geometric mean effluent limitations are required to be achieved.
c. The 22% single sample maximum allowable exceedance frequency only applies to wet weather days. For dry weather days, the dry weather bacteria densities must be consistent with the single sample maximum REC-1 water quality objectives in the Ocean Plan for discharges to beaches, and the Basin Plan for discharges to creeks and creek mouths.
d. Total coliform effluent limitations only apply to MS4 outfalls that discharge to the Pacific Ocean Shorelines and creek mouths.
e. This *Enterococcus* effluent limitation applies to MS4 discharges to segments of areas of Pacific Ocean Shoreline.
f. This *Enterococcus* effluent limitation applies to MS4 discharges to segments or areas of creeks or creek mouths.

G4.10 LIST OF RESPONSIBLE PERMITTEES BY TMDL

Permittee	TMDL	Regional Water Board
22nd District Agricultural Association	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
American Canyon, City of	Napa River Pathogens TMDL	San Francisco Bay
American Canyon, City of	Napa River Sediment TMDL	San Francisco Bay
American Canyon, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
American Canyon, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Anderson, City of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Redding
Atwater, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Fresno
Avalon, City of	Avalon Bay Bacterial TMDL	Los Angeles
Belvedere, City of	Richardson Bay Pathogens TMDL	San Francisco Bay
Belvedere, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Belvedere, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Benicia, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay

Permittee	TMDL	Regional Water Board
Benicia, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
California Institute for Men	Middle Santa Ana River Watershed Bacterial Indicator TMDL	Santa Ana
California Institute for Women	Middle Santa Ana River Watershed Bacterial Indicator TMDL	Santa Ana
California Polytechnic State University, Pomona	San Gabriel River, Estuary and Tributaries Indicator Bacteria TMDL	Los Angeles
California Polytechnic State University, San Luis Obispo	TMDL for Pathogens in San Luis Obispo Creek	Central Coast
California Polytechnic State University, San Luis Obispo	TMDLs for Nitrate-Nitrogen in San Luis Obispo Creek	Central Coast
California Rehabilitation Center	Middle Santa Ana River Watershed Bacterial Indicator TMDL	Santa Ana
California State University, Channel Islands	Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL	Los Angeles
California State University, Channel Islands	Calleguas Creek Watershed Metals and Selenium TMDL	Los Angeles
California State University, Channel Islands	Calleguas Creek Watershed Toxicity TMDL	Los Angeles
California State University, Dominguez Hills	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	Los Angeles
California State University, Dominguez Hills	Los Angeles Harbor Bacteria TMDL – Inner Cabrillo Beach and Main Ship Channel	Los Angeles
California State University, Long	Los Cerritos Channel Metals TMDL	Los Angeles

Permittee	TMDL	Regional Water Board
Beach		
California State University, Los Angeles	Los Angeles River and Tributaries Metals TMDL	Los Angeles
California State University, Los Angeles	Los Angeles River Bacteria TMDL	Los Angeles
California State University, Los Angeles	Los Angeles River Nitrogen Compounds and Related Effects TMDL	Los Angeles
California State University, Los Angeles	Los Angeles River Trash TMDL	Los Angeles
California State University, Northridge	Los Angeles River and Tributaries Metals TMDL	Los Angeles
California State University, Northridge	Los Angeles River Bacteria TMDL	Los Angeles
California State University, Northridge	Los Angeles River Nitrogen Compounds and Related Effects TMDL	Los Angeles
California State University, Northridge	Los Angeles River Trash TMDL	Los Angeles
California State University, San Marcos	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
Calistoga, City of	Napa River Pathogens TMDL	San Francisco Bay
Calistoga, City of	Napa River Sediment TMDL	San Francisco Bay
Calistoga, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Calistoga, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Camp Pendleton	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San	San Diego

Permittee	TMDL	Regional Water Board
	Diego Region	
Candlestick Point State Recreation Area, California State Parks and Recreation	San Francisco Bay Beaches Bacteria TMDL	San Francisco Bay
Capitola, City of	TMDL for Pathogens in Soquel Lagoon, Soquel Creek, and Noble Gulch	Central Coast
Carpinteria, City of	TMDL for Nitrogen and Phosphorous Compounds in Streams of the Franklin Creek Watershed	Central Coast
Ceres, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Clearlake, City of	Clear Lake Nutrients TMDL	Central Valley, Sacramento
Colusa, County of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Sacramento
Corte Madera, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Corte Madera, Town of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Escalon, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Fairfax, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Fairfax, Town of	TMDL for Diazinon and Pesticide-Related	San Francisco Bay

Permittee	TMDL	Regional Water Board
	Toxicity in Urban Creeks	
Federal Correctional Institution, Terminal Island	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	Los Angeles
Federal Correctional Institution, Terminal Island	Los Angeles Harbor Bacteria TMDL – Inner Cabrillo Beach and Main Ship Channel	Los Angeles
Fortuna, City of	Lower Eel River Temperature and Sediment TMDL	North Coast
Gilroy, City of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Gilroy, City of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Gilroy, City of	TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River	Central Coast
Guadalupe, City of	TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed	Central Coast
Guadalupe, City of	TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds and Tributaries to Oso Flaco Lake	Central Coast
Guadalupe, City of	TMDL for Toxicity and Pesticides in the Santa Maria Watershed	Central Coast
Hollister, City of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast

Permittee	TMDL	Regional Water Board
Hollister, City of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Hollister, City of	TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River	Central Coast
Hughson, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Lake, County of	Clear Lake Nutrients TMDL	Central Valley, Sacramento
Lakeport, City of	Clear Lake Nutrients TMDL	Central Valley, Sacramento
Larkspur, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Larkspur, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Lathrop, City of	Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
Lathrop, City of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Lathrop, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Livingston, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Fresno
Lodi, City of	Sacramento-San Joaquin Delta Diazinon	Central Valley, Sacramento

Permittee	TMDL	Regional Water Board
	and Chlorpyrifos TMDL	
Lodi, City of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Long Beach Veterans Affairs Medical Center	Los Cerritos Channel Metals TMDL	Los Angeles
Los Banos, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Fresno
Los Osos Community Services District	TMDL for Pathogens in Morro Bay and Chorro and Los Osos Creeks	Central Coast
Manteca, City of	Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
Manteca, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
March Air Reserve Base	Lake Elsinore and Canyon Lake Nutrient TMDL	Santa Ana
Marin, County of	Petaluma River Bacteria TMDL	San Francisco Bay
Marin, County of	Richardson Bay Pathogens TMDL	San Francisco Bay
Marin, County of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Marin, County of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Marin, County of	Tomales Bay Watershed Pathogens TMDL	San Francisco Bay
Marysville, City of	TMDL for Diazinon and Chlorpyrifos in the	Central Valley, Sacramento

Permittee	TMDL	Regional Water Board
	Sacramento and Feather Rivers	
Merced, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Fresno
Merced, County of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Fresno
Mill Valley, City of	Richardson Bay Pathogens TMDL	San Francisco Bay
Mill Valley, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Mill Valley, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Marine Corps Air Station Miramar	TMDL for Sediment in Los Peñasquitos Lagoon	San Diego
Marine Corps Air Station Miramar	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
Monterey, County of	TMDL for Fecal Coliform in Lower Salinas River Watershed	Central Coast
Monterey, County of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Monterey, County of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Monterey, County of	TMDL for Nitrogen Compounds and Orthophosphate in the Lower Salinas River Watersheds	Central Coast

Permittee	TMDL	Regional Water Board
Monterey, County of	TMDL for Sediment Toxicity and Pyrethroid Pesticides in Sediment in the Lower Salinas River Watershed	Central Coast
Monterey, County of	TMDL for Turbidity in Gabilan Creek Watershed	Central Coast
Morgan Hill, City of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Morgan Hill, City of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Morgan Hill, City of	TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River	Central Coast
Morro Bay, City of	TMDL for Pathogens in Morro Bay and Chorro and Los Osos Creeks	Central Coast
Napa, City of	Napa River Pathogens TMDL	San Francisco Bay
Napa, City of	Napa River Sediment TMDL	San Francisco Bay
Napa, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Napa, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Napa, County of	Napa River Pathogens TMDL	San Francisco Bay
Napa, County of	Napa River Sediment TMDL	San Francisco Bay
Napa, County of	San Francisco Bay Polychlorinated	San Francisco Bay

Permittee	TMDL	Regional Water Board
	Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	
Napa, County of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Naval Base Ventura County; includes Port Hueneme and Point Mugu	Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL	Los Angeles
Naval Base Ventura County; includes Port Hueneme and Point Mugu	Calleguas Creek Watershed Metals and Selenium TMDL	Los Angeles
Naval Base Ventura County; includes Port Hueneme and Point Mugu	Calleguas Creek Watershed Toxicity TMDL	Los Angeles
Newman, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
North County Transit District	TMDL for Sediment in Los Peñasquitos Lagoon	San Diego
North County Transit District	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
Novato, City of	Petaluma River Bacteria TMDL	San Francisco Bay
Novato, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Novato, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Oakdale, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water	Central Valley, Sacramento

Permittee	TMDL	Regional Water Board
	Ship Channel	
Orange County Fair & Event Center	San Diego Creek and Newport Bay Toxic Pollutants (Metals) TMDL	Santa Ana
Orange County Fair & Event Center	San Diego Creek and Upper Newport Bay Diazinon and Chlorpyrifos TMDL	Santa Ana
Orange County Fair & Event Center	San Diego Creek, Upper and Lower Newport Bay, Revised Organochlorine Compounds TMDL	Santa Ana
Orange County Fair & Event Center	Selenium TMDLs in Freshwater for Newport Bay Watershed	Santa Ana
Patterson, City of	Lower San Joaquin River Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
Patterson, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Petaluma, City of	Petaluma River Bacteria TMDL	San Francisco Bay
Petaluma, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Petaluma, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Placer, County of	TMDL for Sediment in the Middle Truckee River Watershed, Placer, Nevada and Sierra Counties	Lahontan
Port of Oakland	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay

Permittee	TMDL	Regional Water Board
Presidio of San Francisco	San Francisco Bay Beaches Bacteria TMDL	San Francisco Bay
Red Bluff, City of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Redding
Redding, City of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Redding
Rio Vista, City of	Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
Rio Vista, City of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Ripon, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Riverbank, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Roseville, City of	TMDL for Pyrethroid Pesticides in Sacramento and San Joaquin River Basin	Central Valley, Sacramento
Ross, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Ross, Town of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
San Anselmo, Town of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
San Anselmo, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco	San Francisco Bay

Permittee	TMDL	Regional Water Board
	Bay Mercury TMDL	
San Diego Metropolitan Transit System	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
San Diego State University	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
San Francisco, City of (Port of San Francisco)	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
San Francisco, City of (San Francisco Public Utilities Commission)	San Francisco Bay Beaches Bacteria TMDL	San Francisco Bay
San Francisco, City of (San Francisco Public Utilities Commission)	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
San Luis Obispo, City of	TMDL for Pathogens in San Luis Obispo Creek	Central Coast
San Luis Obispo, City of	TMDLs for Nitrate-Nitrogen in San Luis Obispo Creek	Central Coast
San Luis Obispo, County of	TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed	Central Coast
San Luis Obispo, County of	TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds and Tributaries to Oso Flaco Lake	Central Coast
San Luis Obispo, County of	TMDL for Pathogens in Morro Bay and Chorro and Los Osos Creeks	Central Coast

Permittee	TMDL	Regional Water Board
San Luis Obispo, County of	TMDL for Pathogens in San Luis Obispo Creek	Central Coast
San Luis Obispo, County of	TMDL for Sediment in Morro Bay	Central Coast
San Luis Obispo, County of	TMDLs for Nitrate-Nitrogen in San Luis Obispo Creek	Central Coast
San Rafael, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
San Rafael, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Santa Barbara, County of	TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed	Central Coast
Santa Barbara, County of	TMDL for Nitrogen and Phosphorous Compounds in Streams of the Franklin Creek Watershed	Central Coast
Santa Barbara, County of	TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds and Tributaries to Oso Flaco Lake	Central Coast
Santa Barbara, County of	TMDL for Toxicity and Pesticides in the Santa Maria Watershed	Central Coast
Santa Clara, County of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Santa Clara, County of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast

Permittee	TMDL	Regional Water Board
Santa Cruz County Fairgrounds	TMDL for Fecal Coliform in Corralitos and Salsipuedes Creeks	Central Coast
Santa Cruz County Fairgrounds	TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River	Central Coast
Santa Cruz, City of	TMDL for Pathogens in San Lorenzo Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek	Central Coast
Santa Cruz, City of	TMDL for Sediment in the San Lorenzo River	Central Coast
Santa Cruz, County of	TMDL for Fecal Coliform in Corralitos and Salsipuedes Creeks	Central Coast
Santa Cruz, County of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Santa Cruz, County of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Santa Cruz, County of	TMDL for Pathogens in Aptos Creek, Valencia Creek, and Trout Creek	Central Coast
Santa Cruz, County of	TMDL for Pathogens in San Lorenzo Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek	Central Coast
Santa Cruz, County of	TMDL for Pathogens in Soquel Lagoon, Soquel Creek, and Noble Gulch	Central Coast
Santa Cruz, County of	TMDL for Pathogens in Watsonville Slough	Central Coast

Permittee	TMDL	Regional Water Board
Santa Cruz, County of	TMDL for Sediment in the San Lorenzo River	Central Coast
Santa Cruz, County of	TMDL for Total Phosphorous to Address Cyanobacterial Blooms in Pinto Lake	Central Coast
Santa Maria, City of	TMDL for Fecal Indicator Bacteria in Santa Maria River Watershed	Central Coast
Santa Maria, City of	TMDL for Nitrogen Compounds and Orthophosphate in the Lower Santa Maria River Watersheds and Tributaries to Oso Flaco Lake	Central Coast
Santa Maria, City of	TMDL for Toxicity and Pesticides in the Santa Maria Watershed	Central Coast
Sausalito City of	Richardson Bay Pathogens TMDL	San Francisco Bay
Sausalito City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Sausalito City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Scotts Valley, City of	TMDL for Pathogens in San Lorenzo Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek	Central Coast
Scotts Valley, City of	TMDL for Sediment in the San Lorenzo River	Central Coast
Shasta, County of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Redding
Solano, County of	San Francisco Bay Polychlorinated	San Francisco Bay

Permittee	TMDL	Regional Water Board
	Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	
Sonoma Water (formerly Sonoma County Water Agency)	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Sonoma Water (formerly Sonoma County Water Agency)	Sonoma Creek Pathogens TMDL	San Francisco Bay
Sonoma Water (formerly Sonoma County Water Agency)	Sonoma Creek Watershed Sediment TMDL	San Francisco Bay
Sonoma, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Sonoma, City of	Sonoma Creek Pathogens TMDL	San Francisco Bay
Sonoma, City of	Sonoma Creek Watershed Sediment TMDL	San Francisco Bay
Sonoma, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Sonoma, County of	Petaluma River Bacteria TMDL	San Francisco Bay
Sonoma, County of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Sonoma, County of	Sonoma Creek Pathogens TMDL	San Francisco Bay
Sonoma, County of	Sonoma Creek Watershed Sediment TMDL	San Francisco Bay
Sonoma, County of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
St. Helena, City of	Napa River Pathogens TMDL	San Francisco Bay

Permittee	TMDL	Regional Water Board
St. Helena, City of	Napa River Sediment TMDL	San Francisco Bay
St. Helena, City of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
St. Helena, City of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Stanislaus, County of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
Sutter, County of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Sacramento
Tiburon, Town of	Richardson Bay Pathogens TMDL	San Francisco Bay
Tiburon, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Tiburon, Town of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Tracy, City of	Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
Tracy, City of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Travis Air Force Base	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Truckee, Town of	TMDL for Sediment in the Middle Truckee River Watershed, Placer, Nevada and Sierra Counties	Lahontan, South Lake Tahoe

Permittee	TMDL	Regional Water Board
Turlock, City of	TMDL for Low Dissolved Oxygen in the San Joaquin River Stockton Deep Water Ship Channel	Central Valley, Sacramento
University of California, Irvine	San Diego Creek and Newport Bay Toxic Pollutants (Metals) TMDL	Santa Ana
University of California, Irvine	San Diego Creek and Upper Newport Bay Diazinon and Chlorpyrifos TMDL	Santa Ana
University of California, Irvine	San Diego Creek, Upper and Lower Newport Bay, Revised Organochlorine Compounds TMDL	Santa Ana
University of California, Irvine	Selenium TMDLs in Freshwater for Newport Bay Watershed	Santa Ana
University of California, Los Angeles	Ballona Creek Estuary Toxic Pollutants TMDL	Los Angeles
University of California, Los Angeles	Ballona Creek Metals TMDL	Los Angeles
University of California, Los Angeles	Ballona Creek Trash TMDL	Los Angeles
University of California, Los Angeles	Ballona Creek, Estuary, and Sepulveda Channel Bacteria TMDL	Los Angeles
University of California, Riverside	Middle Santa Ana River Watershed Bacterial Indicator TMDL	Santa Ana
University of California, San Diego	TMDL for Sediment in Los Peñasquitos Lagoon	San Diego
University of California, San Diego	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
Ventura County Fairgrounds (Seaside Park and Ventura County	Ventura River Estuary Trash TMDL	Los Angeles

Permittee	TMDL	Regional Water Board
Fairgrounds)		
Veterans Affairs Greater Los Angeles Healthcare System	Ballona Creek Estuary Toxic Pollutants TMDL	Los Angeles
Veterans Affairs Greater Los Angeles Healthcare System	Ballona Creek Metals TMDL	Los Angeles
Veterans Affairs Greater Los Angeles Healthcare System	Ballona Creek Trash TMDL	Los Angeles
Veterans Affairs Greater Los Angeles Healthcare System	Ballona Creek, Estuary, and Sepulveda Channel Bacteria TMDL	Los Angeles
Veterans Affairs San Diego Healthcare System	TMDL for Sediment in Los Peñasquitos Lagoon	San Diego
Veterans Affairs San Diego Healthcare System	TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region	San Diego
Watsonville, City of	TMDL for Fecal Coliform in Corralitos and Salsipuedes Creeks	Central Coast
Watsonville, City of	TMDL for Fecal Coliform in the Pajaro River Watershed	Central Coast
Watsonville, City of	TMDL for Nitrogen Compounds and Orthophosphate in Streams of the Pajaro River Basin	Central Coast
Watsonville, City of	TMDL for Pathogens in Watsonville Slough	Central Coast
Watsonville, City of	TMDL for Sediment in the Pajaro River Including Llagas Creek, Rider Creek, and San Benito River	Central Coast
Watsonville, City of	TMDL for Total Phosphorous to Address Cyanobacterial Blooms in Pinto Lake	Central Coast

Permittee	TMDL	Regional Water Board
West Sacramento, City of	Sacramento-San Joaquin Delta Diazinon and Chlorpyrifos TMDL	Central Valley, Sacramento
West Sacramento, City of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Yolo, County of	Sacramento-San Joaquin Delta Methylmercury TMDL	Central Valley, Sacramento
Yountville, Town of	Napa River Pathogens TMDL	San Francisco Bay
Yountville, Town of	Napa River Sediment TMDL	San Francisco Bay
Yountville, Town of	TMDL for Diazinon and Pesticide-Related Toxicity in Urban Creeks	San Francisco Bay
Yountville, Town of	San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL and San Francisco Bay Mercury TMDL	San Francisco Bay
Yreka, City of	Shasta River Watershed Temperature and Dissolved Oxygen TMDL	North Coast
Yuba City, City of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Sacramento
Yuba, County of	TMDL for Diazinon and Chlorpyrifos in the Sacramento and Feather Rivers	Central Valley, Sacramento