

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
1001 I Street, Sacramento, CA 95814
<http://www.waterboards.ca.gov>

**ORDER WQ 20XX-00XX-DWQ, NPDES NO. CAS000004
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT FOR
WASTE DISCHARGE REQUIREMENTS FOR
STORMWATER DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

TABLE 1. PERMITTEE INFORMATION

Facility type:	Small MS4s, listed in Attachment A of this Order
Discharge type:	Stormwater and authorized non-stormwater discharges

TABLE 2. ADMINISTRATIVE INFORMATION

This Order was adopted on:	<Adoption Date>
This Order shall become effective on:	<Six Months from Adoption Date>
This Order shall expire on:	<Expiration Date>

I, Courtney Tyler, Clerk to the Board, do hereby certify that this Order is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board on XXXX XX, 202X.

Courtney Tyler, Clerk to the Board

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1. FACILITY INFORMATION AND SCOPE OF ORDER

This Order serves as a National Pollutant Discharge Elimination System (NPDES) permit that regulates stormwater and authorized non-stormwater discharges to waters of the United States (U.S.) from small municipal separate storm sewer systems (MS4s).

This Order provides the criteria for designating a small MS4 and the requirements for the following subsets of small MS4s:

1. Traditional Permittees.
2. Non-Traditional Permittees.

Attachment A identifies each Permittee, sorted by subset. The Fact Sheet provides the permitting rationale and regulatory background for the Permittees identified in Attachment A.

2. UPDATED PERMIT REQUIREMENTS

A summary of updated requirements is located in the Fact Sheet.

3. FINDINGS OF APPLICABLE PLANS, POLICIES, AND REGULATIONS

The California State Water Resources Control Board (State Water Board) finds that:

3.1 Legal Authority

This Order serves as waste discharge requirements pursuant to California Water Code (Water Code) division 7, chapter 4, article 4 (commencing with section 13260). This Order is also issued pursuant to federal Clean Water Act section 402 and implementing regulations adopted by the U.S. Environmental Protection Agency (EPA), and Water Code division 7, chapter 5.5 (commencing with section 13370) and serves as an NPDES permit for discharges to waters of the U.S.

3.2 Rationale for Requirements

The State Water Board developed the requirements in this Order based on information obtained through notices of intent, monitoring and reporting programs, and other available information submitted by the Permittees through State Water Board Order WQ 2013-0001-DWQ and amendments. The Fact Sheet (Attachment B), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A and C through J are also incorporated into this Order.

3.3 Notification of Interested Parties

The State Water Board notified existing Permittees, new Permittees, and interested agencies and persons of its intent to prescribe this Order's requirements and provided an opportunity to submit written and oral comments and recommendations. The Fact Sheet provides details regarding the notification.

3.4 Consideration of Public Comment

The State Water Board considered all written comments received pertaining to this Order and, in a public meeting, heard and considered all oral comments pertaining to the Order. The Fact Sheet provides details regarding the public comment process.

4. PERMIT APPROACH

The U.S. EPA's final MS4 General Permit Remand Rule (Federal Register Vol. 81, No. 237, Friday, December 9, 2016), establishes two alternative approaches for developing small municipal stormwater permits: (1) the Comprehensive General Permit and (2) the Two-Step General Permit. The State Water Board selected the Comprehensive General Permit approach for this Order. Refer to the Fact Sheet for additional information.

THEREFORE, IT IS HEREBY ORDERED that Order WQ 2013-0001-DWQ and amendments is rescinded upon the effective date of this Order except for enforcement purposes, and in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this Order. This action in no way prevents the State Water Board or a Regional Water Board from taking enforcement action for violations of the Order WQ 2013-0001-DWQ, amendments, or previous Orders affiliated with Order WQ 2013-0001-DWQ at the time these Orders were in effect.

5. DISCHARGE PROHIBITIONS

5.1 Maximum Extent Practicable

Stormwater discharges regulated under this Order containing pollutants that have not been reduced to the maximum extent practicable are prohibited.

5.2 Discharges into Areas of Special Biological Significance

Stormwater and non-stormwater discharges into Areas of Special Biological Significance (ASBS) are prohibited unless allowed under the conditions provided below. Permittees that are authorized to discharge into an ASBS must additionally comply with Attachment F – Area of Special Biological Significance Implementation Requirements.

5.2.1 Existing Stormwater Discharges into ASBS

Stormwater discharges from existing stormwater outfalls (outfalls that were constructed or under construction prior to January 1, 2005) to ASBS are allowed provided that they comply with all applicable requirements of the Special Protections as laid out in this Order, including its Attachments, and:

- Are essential for flood control and slope stability, including roof, landscape, road, and parking lot drainage,
- Are designed to prevent soil erosion,
- Occur only during wet weather, and
- Are composed only of stormwater runoff.

Discharges composed of stormwater runoff shall not alter natural ocean water quality in an ASBS.

Only discharges from existing stormwater outfalls are allowed. Any proposed or new stormwater runoff discharge shall be routed to existing stormwater discharge outfalls and shall not result in any new contribution of waste (e.g., any addition of waste beyond what would have occurred as of January 1, 2005) to an ASBS. A change to an existing stormwater outfall, in terms of relocation or alteration, in order to comply with these requirements, is allowed and does not constitute a new discharge.

5.2.2 Non-Stormwater Discharges into ASBS

The following non-stormwater discharges into ASBS are allowed provided that the discharges are essential for emergency response purposes, structural stability, slope stability, or occur naturally:

- Discharges associated with emergency firefighting operations,
- Foundation and footing drains,
- Water from crawl space or basement pumps,
- Hillside dewatering,
- Naturally occurring groundwater seepage via a storm drain, and

- Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.

Authorized non-stormwater discharges into ASBS shall not alter natural ocean water quality nor cause or contribute to violations of the water quality objectives in Chapter II of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan).

5.2.3 Additional Non-Stormwater Discharge Authorizations and Prohibitions into ASBS

1. Non-stormwater discharges from utility vaults and underground structures to the Permittee's MS4s with a direct discharge to ASBS are authorized if the discharges are authorized by the General NPDES Permit for Discharges from Utility Vaults and Underground Structures to Surface Water, NPDES CAG990002. Other short-duration, intermittent non-stormwater discharges related to utilities (e.g., groundwater dewatering, potable water system flushing, hydrotest discharges) to a segment of the MS4 with a direct discharge to an ASBS are permitted if such discharges are authorized by an NPDES permit issued by the applicable Regional Water Board.

The State Water Board or a Regional Water Board may prohibit a specific discharge from a utility vault or underground structure if the State Water Board or Regional Water Board determines that the discharge is causing the MS4 discharge to alter natural ocean water quality or cause or contribute to a violation of a water quality objective in Chapter II of the Ocean Plan.

2. Additional non-stormwater discharges to a segment of the Permittee's MS4 with a direct discharge to an ASBS are authorized only to the extent the applicable Regional Water Board finds that the discharge will not alter natural ocean water quality in the ASBS nor cause or contribute to a violation of a water quality objective in Chapter II of the Ocean Plan.
3. This Order does not supersede the authority of a Permittee to effectively prohibit a non-stormwater discharge that has been found to alter natural ocean water quality in the ASBS or cause or contribute to a violation of a water quality objective in Chapter II of the Ocean Plan.
4. The discharge of trash into ASBS is prohibited.

5.3 Trash

The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited. Compliance with this discharge prohibition shall be achieved through compliance with the trash requirements in Attachment H of this Order.

5.4 Exceedances of Water Quality Objectives and Standards

Discharges from a Permittee's MS4 to waters of the U.S. that cause or contribute to the violation of water quality standards or water quality objectives, or that impact the beneficial uses established in a water quality control plan or in a promulgated policy of the State or Regional Water Boards, are prohibited.

5.5 Pollution or Nuisance

A discharge from a Permittee's MS4 to waters of the U.S. in a manner causing or threatening to cause a condition of pollution or nuisance as defined in Water Code section 13050 is prohibited.

5.6 Maintenance Activities

Discharge of wastes or wastewater from road-sweeping vehicles or other maintenance activities to waters of the U.S. or to a storm drainage facility leading to waters of the U.S. is prohibited unless the discharge is in compliance with Attachments D, E, F, G, H, and I of this Order, as applicable, or is authorized under another NPDES permit.

5.7 Waste

Discharges of waste from a Permittee's MS4 that are prohibited by Statewide Water Quality Control Plans or applicable Regional Water Quality Control Plans (Basin Plans) are prohibited.

5.8 Non-Stormwater Discharges

Non-stormwater discharges, other than authorized discharges into ASBS, are to be effectively prohibited unless authorized by a separate NPDES permit or as allowed under this section.

5.8.1 Conditionally Exempt Non-Stormwater Discharges

The following non-stormwater discharges to the MS4 are not required to be effectively prohibited provided any pollutant discharges are identified and appropriate control measures to minimize the impacts of such discharges are developed and implemented under the Permittee's stormwater program.

1. Water line flushing,
2. Incidental runoff from landscaped areas (as defined in and in accordance with this section),
3. Diverted stream flows,
4. Rising ground waters,
5. Uncontaminated ground water infiltration (as defined at 40 Code of Federal Regulations (C.F.R.) 35.2005(b)(20)) to separate storm sewers,
6. Uncontaminated pumped ground water,

7. Discharges from potable water sources,
8. Foundation drains,
9. Air conditioning condensation,
10. Springs,
11. Water from crawl space pumps,
12. Footing drains,
13. Individual residential car washing,
14. Flows from riparian habitats and wetlands, and
15. Dechlorinated swimming pool discharges.

Additionally, discharges or flows associated with firefighting activities are excluded from the effective prohibition on non-stormwater discharges and need only be addressed where they are identified as significant sources of pollutants to the waters of the U.S. The use of best management practices is recommended during emergency firefighting events when feasible.

This section does not obviate the need for the Permittee to obtain any other appropriate permits for such discharges. The State or Regional Water Boards may have separate WDRs or NPDES permits for non-stormwater discharges. The Permittee shall comply with requirements of the State Water Board or an applicable Regional Water Board for coverage under a separate WDR or NPDES permit for a specific non-stormwater discharge, including a conditionally exempt non-stormwater discharge. Additionally, the Permittee may be subject to other Basin Plan requirements not specified in this Order that are applicable to one or more specific non-stormwater discharge types.

If a Permittee or a Regional Water Board Executive Officer identifies any individual or class of non-stormwater discharge listed above as a significant source of pollutants to waters of the U.S. or physically interconnected MS4, or as a threat to water quality standards, the Regional Water Board Executive Officer shall require the applicable Permittee(s) to monitor, submit a report, and implement best management practices for the discharge, or to stop the discharge from recurring.

5.8.2 Discharges in Excess of Incidental Runoff from Landscaped Areas

Incidental runoff is defined as unintended amounts (volume) of runoff, such as unintended minimal over-spray from sprinklers that escapes the area of intended use. Discharges in excess of incidental runoff from landscaped areas are required to be effectively prohibited.

Water discharging from an area of intended use is considered to be in excess of incidental runoff if it is due to any of the following: the facility design, excessive application, intentional overflow or application, or negligence.

Parties responsible for controlling runoff in excess of incidental runoff shall: a. Detect leaks (for example, from broken sprinkler heads) and correct the leaks within 72 hours of learning of the leak; b. Properly design and aim sprinkler heads; c. Not irrigate during precipitation events; and d. Manage pond containing recycled water such that no discharge occurs unless the discharge is a result of a 25-year, 24-hour storm event or greater, and the applicable Regional Water Board is notified by email no later than 24 hours after the discharge. The notification is to include identifying information, including the Permittee's name and permit identification number.

6. EFFLUENT LIMITATIONS

1. Permittees shall implement best management practices to reduce the discharge of pollutants in stormwater discharged from their MS4 to the maximum extent practicable.
2. Permittees shall reduce the discharge of pollutants as necessary to comply with total maximum daily load (TMDL) wasteload and load allocations in accordance with Attachment G.
3. Permittees shall reduce the discharge of pollutants as necessary to comply with the Special Protections for discharges to ASBS in accordance with Attachment F.
4. Stormwater discharges shall not contain a hazardous substance in concentrations equal to or in excess of a reportable quantity listed in 40 C.F.R. sections 117 or 302.

7. RECEIVING WATER LIMITATIONS

7.1 Implementation of Receiving Water Limitations

Discharges from the Permittee's MS4 must comply with receiving water quality objectives, as specified in federal and state regulations, including State and Regional Water Board water quality control plans and policies. Discharges shall not cause or contribute to an exceedance of any applicable water quality standard or water quality objective.

Permittee stormwater management programs shall be designed to achieve compliance with receiving water limitations and the other requirements of this Order. If exceedances of water quality objectives or water quality standards persist notwithstanding the implementation of the requirements of this Order, Permittees shall assure compliance with receiving water limitations by complying with the procedure described in this section, below.

Full compliance with the requirements for a TMDL, including the requirement to demonstrate attainment of the applicable wasteload allocation as specified in

Attachment G, constitutes compliance with the receiving water limitations for the water body-pollutant combinations addressed by the TMDL.

7.1.1 Exceedance of Applicable Water Quality Standard and Technical Report

Either the Permittee or the applicable Regional Water Board may determine that an MS4 is causing or contributing to an exceedance of an applicable water quality standard. If the Permittee makes this determination, it shall promptly notify the applicable Regional Water Board of its determination. Following the determination by the Permittee or the determination and notification to the Permittee by the applicable Regional Water Board, the Permittee shall within 30 days of the determination submit a technical report to the Regional Water Board that describes best management practices that are currently being implemented and additional best management practices that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards, as well as any monitoring necessary to demonstrate compliance with this Order. The technical report shall include an implementation schedule.

7.1.2 Modifications of Technical Report

The Regional Water Board Executive Officer or State Water Board Executive Director may require modifications to this technical report. The Permittee shall submit any required modifications to the technical report within 30 days of notification.

7.1.3 Implementation of Best Management Practices per Approved Technical Report

In accordance with the implementation schedule of the technical report, the Permittee shall implement the revised best management practices and conduct additional necessary monitoring to demonstrate compliance with this Order.

7.1.4 Compliance with Procedures and Implementation Actions

So long as the Permittee has complied with the procedure set forth above and is implementing the actions, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the State Water Board or the Regional Water Board to develop additional best management practices.

7.2 Total Maximum Daily Loads

Permittees shall comply with the applicable TMDL-related requirements in Attachment G of this Order.

7.3 Water Code Compliance

Where a Permittee discharges waste to a water of the State that is not a water of the U.S., compliance with the prohibitions, limitations, and provisions of this Order will constitute compliance with the requirements of the Porter-Cologne Water Quality Control Act within the Water Code, unless the State Water Board Executive Director or a Regional Water Board Executive Officer provides written notification to the Permittee stating otherwise.

8. REOPENER AND REVOCATION PROVISIONS

This Order may be modified, revoked and reissued, or terminated for cause, including promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 C.F.R. sections 122.62, 122.63, 122.64, and 124.5. Additionally, the State Water Board may reopen and modify this Order at any time prior to its expiration under any of the following circumstances:

8.1 Present or Future Investigations

Present or future investigations demonstrate discharges regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality or beneficial uses.

8.2 New or Revised Water Quality Objectives or Total Maximum Daily Loads

New or revised water quality objectives come into effect, or a TMDL is adopted or revised that is applicable to a Permittee. In such cases, effluent limitations and other requirements in this Order may be incorporated or modified as necessary to reflect the new or revised TMDLs or water quality objectives.

8.3 Precedential Decisions, Regulations, Laws, or Policies

New or revised regulations, laws, polices or State Water Board precedential decisions come into effect.

8.4 Clean Water Act Section 307(a)

Any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Clean Water Act section 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Order.

9. REGIONAL WATER BOARD AUTHORITIES

1. Upon the effective date of this Order, Regional Water Boards are responsible for overseeing compliance with and enforcing the requirements of this Order.

This may include, but is not limited to, determining compliance through reviewing plans, reports, and other information; conducting inspections and program evaluations; conducting monitoring; and issuing informal and formal enforcement orders.

2. Regional Water Boards may require retention of records for more than three years.
4. To the extent authorized by the Water Code, Regional Water Boards may impose additional notification, monitoring, reporting requirements and may provide guidance on monitoring plan implementation.
5. Regional Water Board staff may inspect the Permittee's facilities, storm sewer system, roadways, appurtenances, and construction sites.
6. Where a Permittee believes that additional time to comply with the final water quality-based effluent limitations or receiving water limitations in a TMDL is necessary, a Permittee may request a time schedule order pursuant to Water Code 13300 for the applicable Regional Water Board's consideration.
7. To the extent authorized by the Water Code, Regional Water Boards may require modification to stormwater program components and reporting requirements.
8. The Regional Water Boards may designate additional small MS4s on a case-by-case basis, following public review and comment. The State Water Board Executive Director may amend Attachment A to reflect Regional Water Board designations and incorporate the reasons for designation into the Fact Sheet. Determination of designation shall be based on the potential of an MS4's discharges to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.
9. Regional Water Boards may issue other NPDES permits or Waste Discharge Requirements to Permittees for discharges not regulated by this Order.
10. The Regional Water Boards may issue individual stormwater permits to Permittees regulated under this Order or alternative stormwater general permits to categories of Permittees. Upon issuance of such permits by a Regional Water Board and approval by the State Water Board Executive Director, this Order shall no longer regulate the affected Permittees and the Permittees shall be delisted from this Order.

10. REQUIREMENTS OF OTHER AGENCIES

This Order does not preempt or supersede the authority of other State or local agencies (such as the Department of Toxic Substances Control or the California Coastal Commission) or local municipal authorities to prohibit, restrict, or control

stormwater discharges and conditionally exempt non-stormwater discharges to storm drain systems or other watercourses within their jurisdictions as allowed by State and federal law.

11. DISPUTE RESOLUTION

In the event of a disagreement between a Permittee and a Regional Water Board over the interpretation of any provision of this Order, the Permittee shall first attempt to resolve the disputed issue with the Executive Officer of the Regional Water Board. If a resolution satisfactory to the Permittee is not obtained at the Regional Water Board level:

1. Within 30 days of any final determination by the Executive Officer of the Regional Water Board, the Permittee may submit its dispute and request for resolution in writing to the State Water Board Executive Director or designee for resolution, with a copy to the Executive Officer of the Regional Water Board and a copy to the State Water Board Division of Water Quality Deputy Director. If a request for resolution is not submitted within 30 days of any final determination by the Executive Officer of the Regional Water Board, the Permittee will be deemed to have accepted that determination.
2. The Regional Water Board Executive Officer will be provided with an opportunity to respond.
3. Within 60 days of the Permittee's submittal of the written dispute and request for resolution by the Executive Director or designee, the State Water Board Executive Director or designee shall make a determination on the Permittee's request.

Determinations of the Regional Water Board Executive Officers in interpreting and implementing this permit are considered actions of the State Water Board except where the Regional Water Board itself or through its Executive Officer acts under Water Code Sections 13300, 13304, or 13383.

12. NOTICE OF INTENT

All Permittees listed in Attachment A must submit a Notice of Intent, and required attachments to obtain coverage under this Order, as described in Attachment C.

1. By the effective date of this Order, small MS4s regulated under the previous Order (Order WQ 2013-0001-DWQ, NPDES No. CAS000004) must electronically file a Notice of Intent and the applicable technical information required in Attachment C. They must also submit the applicable fee.
2. By the effective date of this Order, small MS4s that are newly regulated by this Order must electronically file a Notice of Intent and applicable technical

information required in Attachment C. They must also submit the applicable fee.

3. Small MS4s designated after adoption of this Order must electronically file a Notice of Intent within 180 days of designation.
4. A small MS4 identified in Attachment A may seek a waiver from the requirements of this Order if the small MS4 meets the waiver criteria specified Attachment C, including an annual recertification requirement. Those entities under a waiver provided per the provisions of the previous permit must reapply under this Order.
5. A Permittee regulated by this Order that intends to continue discharging stormwater after the expiration date of this Order must submit a new Notice of Intent within six months prior to this Order's Expiration Date.

13. STANDARD PROVISIONS – PERMIT COMPLIANCE

The Permittee shall continue to implement the requirements of this Order until a subsequent reissued permit becomes effective.

The Permittee shall comply with all Standard Provisions of this Order as required by 40 C.F.R. and as listed in sections 13 through 18.

This Order is effective for five years from the effective date. The terms and conditions of an expired Order are automatically continued pending reissuance.

13.1 Duty to Comply

1. The Permittee shall comply with all the conditions of this Order. Any permit noncompliance constitutes a violation of the Clean Water Act and the Water Code, which may be grounds for enforcement action or denial of permit coverage.
2. The Permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.
3. Permittees who cannot certify compliance and/or who have had instances of noncompliance shall notify the applicable Regional Water Board within 30 days. Instances of noncompliance resulting in emergencies (i.e., that endanger human health or the environment) shall be reported orally to the Regional Water Board within 24 hours from the time the discharger becomes aware of the circumstance and in writing to the Regional Water Board within five calendar days of the occurrence. The notification shall identify the noncompliance event and an initial assessment of any impact caused by the event, describe the actions necessary to achieve compliance, and include a

time schedule indicating when compliance will be achieved. The time schedule and corrective measures are subject to modification by the Regional Water Board Executive Officer.

13.2 Need to Halt or Reduce Activity Not a Defense

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

13.3 Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.

13.4 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee, or by a contractor to the Permittee, to achieve compliance with the conditions of this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. The operation of backup or auxiliary facilities or similar systems installed by the Permittee is required only when necessary to achieve compliance with the conditions of this Order.

13.5 Property Rights

This Order does not convey any property rights of any sort, or any exclusive privilege.

13.6 Inspection and Entry

Upon the presentation of credentials and other documents required by law, the Permittee shall allow representatives of the State Water Board, Regional Water Boards, or U.S. EPA to:

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order.
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order.
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.

4. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance, or as otherwise authorized by the Clean Water Act, any substances, or parameters at any location.

14. STANDARD PROVISIONS – PERMIT ACTION

14.1 General

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

14.2 Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Permittee must apply for coverage under a new permit.

14.3 Transfers

This Order is not transferable to any person except after notice to the State Water Board. The State Water Board may require modification or revocation and reissuance of the Order to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Water Code.

14.4 Removal from Coverage

In the event that a Permittee is removed from coverage under this Order, the Permittee will be required to seek coverage under an individual or alternative general permit.

14.5 Availability of this Order

The Permittee shall always maintain a copy of this Order at the facility and make it available to the appropriate facility personnel and to representatives of the Regional Water Boards, State Water Board, or U.S. EPA.

14.6 Personnel Education of Order Requirements

The Permittee shall ensure that all personnel whose decisions or activities could affect stormwater quality and compliance with this Order are educated as to the requirements of this Order.

14.7 Provisions of this Order are Severable

The provisions of this Order are severable; and if any provision of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

15. STANDARD PROVISIONS – MONITORING

- 15.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 15.2. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:
 1. The method minimum level is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method minimum level is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method minimum level is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 2. The method has the lowest minimum level of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N for the measured pollutant or pollutant parameter. In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136, or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters.

16. STANDARD PROVISIONS – RECORDS

16.1 Retain Records of All Monitoring Information

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for

a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the State Water Board Executive Director or Regional Water Board Executive Officer at any time.

16.2 Records of Monitoring Information

Records of monitoring information shall include the following:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

16.3 Claims of Confidentiality

Claims of confidentiality for the following information will be denied:

1. The name and address of any permit applicant or Permittee, and
2. Permit applications and attachments, permits and effluent data.

17. STANDARD PROVISIONS – REPORTING

Permittees shall submit all reports and plans electronically through the Stormwater Multiple Application and Report Tracking System (SMARTS). When notified by the State Water Board Executive Director, Permittees shall electronically report to SMARTS the U.S. EPA-specified reporting information (referred to as “[NPDES eRule](#)” reporting), including the data elements associated with MS4 permit requirements and minimum control measures ([Federal Register, Final Rule](#), April 15, 2020).

17.1 Duty to Provide Information

The Permittee shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Permittee shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order.

17.2 Signatory and Certification Requirements

- 17.2.1. All notices of intent, applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with the Standard Provisions – Reporting sections, as follows:
- 17.2.2. All permit notices of intent and applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).
- 17.2.3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in the Standard Provisions – Reporting sections, above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described in the Standard Provisions – Reporting sections, above;
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 3. The written authorization is submitted to the Regional Water Board and State Water Board.
- 17.2.4. If an authorization under the Standard Provisions – Reporting sections, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of the Standard Provisions – Reporting sections, above, must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.
- 17.2.5. Any person signing a document under The Standard Provisions – Reporting sections, above, shall make the following certification:
- “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system*

designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

- 17.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 16.2.1, 16.2.2, or 16.2.3 that are submitted electronically shall meet all relevant requirements of the Standard Provisions – Reporting sections, and shall ensure that all relevant requirements of 40 C.F.R. section 3 (Cross-Media Electronic Reporting) and 40 C.F.R. section 127 (NPDES Electronic Reporting Requirements) are met for that submission.

17.3 Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the monitoring and reporting sections of Attachments D, E, F, G, and I of this Order.
2. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.

17.4 Planned Changes

The Permittee shall give notice to the State Water Board and the applicable Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this section only when the alteration or addition could significantly change the nature or could increase the quantity of pollutants discharged or otherwise meets the criteria in 40 C.F.R. section 122.41(l)(1).

17.5 Anticipated Noncompliance

The Permittee shall give advance notice to the applicable Regional Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this Order.

17.6 Compliance Schedule

The Permittee shall submit reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order no later than 14 days following each scheduled date.

17.7 Other Information

If the Permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or in any required report, it shall promptly submit such facts or information.

17.8 Twenty-Four Hour Reporting

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

18. STANDARD PROVISIONS – ENFORCEMENT

1. The Standard Provisions of this section shall not act as a limitation on the statutory or regulatory authority of the State and Regional Water Boards.
2. Any violation of this Order constitutes a violation of the Water Code and regulations adopted hereunder and the provisions of the Clean Water Act, and is the basis for an enforcement action, permit termination, permit revocation and reissuance, denial of an application for permit reissuance, or a combination thereof.
3. The State Water Board and Regional Water Boards may impose administrative civil liability, may refer the Permittee to the State Attorney General to seek civil monetary penalties, may seek injunctive relief, or may take other appropriate enforcement action as provided in the Water Code or federal law for violation of Water Board Orders.
4. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, report, or method or reports of compliance or noncompliance required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years, or both if a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both
5. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other

document submitted or required to be maintained under this Order including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6. Significant penalties may be imposed for violation of this Order, pursuant to Water Code section 13385 and other State and federal statutes. Court-imposed liability may exceed \$25,000 per day, and Regional Water Boards may impose administrative fines exceeding \$10,000 per day.
7. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the Clean Water Act.
8. The provisions of this Order are severable; and if any provision of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

19. STORMWATER MANAGEMENT PROGRAM

This Order requires the Permittee to implement a stormwater management program consistent with the requirements of this Order. Stormwater management program requirements are specified separately for Traditional and Non-Traditional Permittees. Traditional Permittees shall comply with Attachment D of this Order. Non-Traditional Permittees shall comply with Attachment E of this Order. Where this Order requires a Renewal Permittee to update a plan or program required by the prior Order, the Renewal Permittee must continue implementing its existing plan or policy until the new plan or policy is finalized.

Stormwater management programs shall be designed to achieve compliance with receiving water limitations through timely implementation of control measures, best management practices and other actions to reduce pollutants in the discharges and other requirements of this Order including any modifications.

ATTACHMENT A – REGULATED SMALL MS4 PERMITTEES

Overview

This Attachment lists the Permittees regulated under this Order, as follows:

- Table A6.1 – Traditional Permittees;
- Table A6.2 – Census Designated Places for Implementation by Designated County – Traditional Permittees;
- Table A6.3 – Non-Traditional Permittees;
- Table A6.4 – Parks.

A1. Amendment of Lists of Regulated Permittees

The Executive Director may amend the lists of designated small MS4 Permittees consistent with this Order’s designation criteria.

A2. Census Designated Places

This Order requires that the designated county (identified in Table A6.2) perform the following for its corresponding census designated places:

- Identify the corresponding census designated places in the county’s Notice of Intent, and
- Implement the requirements of this Order within the census designated places.

A3. Monitoring Types

Tables A6.1 through A6.3 each include a column identifying the type of monitoring that permittees may be required to monitor per Attachments D and E of this Order.

In the columns labeled “monitoring type,” the acronyms are defined as follows:

- ASBS means monitoring may be required per the Areas of Special Biological Significance Special Protections,
- TMDL means monitoring may be required under a TMDL

Additional monitoring, which is not listed below, may be required as determined by the State Water Board or applicable Regional Water Board.

Table A6.1. Traditional Permittees

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
North Coast	Del Norte	Crescent City, City of	2013	7,643	Crescent City, Urban Cluster	Renewal	
North Coast	Humboldt	Arcata, City of	2003	17,231	Arcata-McKinleyville, Urban Cluster	Renewal	
North Coast	Humboldt	Eureka, City of	2003	27,191	Eureka, Urban Cluster	Renewal	
North Coast	Humboldt	Fortuna, City of	2003	11,926	Fortuna, Urban Cluster	Renewal	
North Coast	Humboldt	Humboldt, County of	2013	135,010	Other	Renewal	ASBS
North Coast	Humboldt	Trinidad, City of	2013	367	Regional Water Board Designated	Renewal	ASBS
North Coast	Mendocino	Fort Bragg, City of	2003	7,273	Fort Bragg, Urban Cluster	Renewal	
North Coast	Mendocino	Mendocino, County of	2003	89,783	Other	Renewal	
North Coast	Mendocino	Willits	[Year of permit adoption]	4,988	Urban area	New	
North Coast	Siskiyou	Yreka, City of	2013	7,765	Yreka, Urban Cluster	Renewal	TMDL
San Francisco Bay	Marin	Tiburon, Town of	2003	8,962	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	Belvedere, City of	2003	2,068	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	Corte Madera, Town of	2003	9,253	San Francisco-Oakland, Urbanized Area	Renewal	
San Francisco Bay	Marin	Fairfax, Town of	2003	7,441	San Francisco-Oakland, Urbanized Area	Renewal	
San Francisco Bay	Marin	Larkspur, City of	2003	11,926	San Francisco-Oakland, Urbanized Area	Renewal	
San Francisco Bay	Marin	Marin, County of	2003	257,332	San Francisco-Oakland, Urbanized Area	Renewal	ASBS, TMDL
San Francisco Bay	Marin	Mill Valley, City of	2003	13,903	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	Novato, City of	2003	51,904	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	San Rafael, City of	2003	61,154	San Francisco-Oakland, Urbanized Area	Renewal	TMDL

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
San Francisco Bay	Marin	San Anselmo, City of	2003	12,775	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	Ross, Town of	2003	2,415	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Marin	Sausalito, City of	2003	7,061	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Napa	American Canyon, City of	2003	19,454	Vallejo, Urbanized Area	Renewal	TMDL
San Francisco Bay	Napa	Calistoga, City of	2003	5,155	Calistoga, Urban Cluster	Renewal	TMDL
San Francisco Bay	Napa	Napa, City of	2003	76,915	Napa, Urbanized Area	Renewal	TMDL
San Francisco Bay	Napa	Napa, County of	2003	134,300	Other	Renewal	TMDL
San Francisco Bay	Napa	St. Helena, City of	2003	5,814	St. Helena, Urban Cluster	Renewal	TMDL
San Francisco Bay	Napa	Yountville, City of	2003	2,933	Yountville, Urban Cluster	Renewal	TMDL
San Francisco Bay	Sonoma	Sonoma County Water Agency	2003	–	Other	Renewal	TMDL
San Francisco Bay	San Francisco	San Francisco, City of (Port of San Francisco)	2003	–	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	San Francisco	San Francisco, City of (San Francisco Public Utilities Commission)	2003	–	San Francisco-Oakland, Urbanized Area	Renewal	TMDL
San Francisco Bay	Solano	Benicia, City of	2003	26,997	Vallejo, Urbanized Area	Renewal	TMDL
San Francisco Bay	Solano	Solano, County of (R2)	2003	446,935	Other	Renewal	TMDL
San Francisco Bay	Sonoma	Petaluma, City of	2003	57,941	Petaluma, Urbanized Area	Renewal	TMDL
San Francisco Bay	Sonoma	Sonoma, City of	2003	10,648	Sonoma, Urban Cluster	Renewal	TMDL
San Francisco Bay	Sonoma	Sonoma, County of	2003	489,819	Other	Renewal	TMDL
Central Coast	Monterey	Carmel-by-the-Sea	2003	3,722	Seaside-Monterey, Urbanized Area	Renewal	ASBS
Central Coast	Monterey	Del Rey Oaks, City of	2003	1,624	Seaside-Monterey, Urbanized Area	Renewal	
Central Coast	Monterey	Gonzalez, City of	2013	8,187	Seaside-Monterey, Urbanized Area	Renewal	
Central Coast	Monterey	Greenfield, City of	2013	16,330	Greenfield, Urban Cluster	Renewal	
Central Coast	Monterey	King, City of	2003	12,874	King City, Urban Cluster	Renewal	

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Coast	Monterey	Marina, City of	2003	19,718	Seaside-Monterey, Urbanized Area	Renewal	
Central Coast	Monterey	Monterey, City of	2003	27,810	Seaside-Monterey, Urbanized Area	Renewal	ASBS
Central Coast	Monterey	Monterey, County of	2003	430,906	Other	Renewal	ASBS, TMDL
Central Coast	Monterey	Pacific Grove, City of	2003	15,041	Seaside-Monterey, Urbanized Area	Renewal	ASBS
Central Coast	Monterey	Sand City	2003	334	Seaside-Monterey, Urbanized Area	Renewal	
Central Coast	Monterey	Seaside City, City of	2003	33,025	Seaside-Monterey, Urbanized Area	Renewal	
Central Coast	Monterey	Soledad, City of	2003	25,738	Soledad, Urban Cluster	Renewal	
Central Coast	San Benito	Hollister, City of	2003	34,928	Hollister, Urban Cluster	Renewal	TMDL
Central Coast	San Benito	San Benito, County of	[Year of permit adoption.]	66,677	San Benito, Urbanized Area	New	TMDL
Central Coast	San Luis Obispo	Arroyo Grande, City of	2003	17,252	Arroyo Grande-Grover Beach, Urbanized Area	Renewal	
Central Coast	San Luis Obispo	Atascadero, City of	2003	28,310	El Paso de Robles (Paso Robles) - Atascadero, Urbanized Area	Renewal	
Central Coast	San Luis Obispo	El Paso de Robles (Paso Robles), City of	2003	29,793	El Paso de Robles (Paso Robles) - Atascadero, Urbanized Area	Renewal	
Central Coast	San Luis Obispo	Grover Beach, City of	2003	13,156	Arroyo Grande-Grover Beach, Urbanized Area	Renewal	
Central Coast	San Luis Obispo	Morro Bay, City of	2003	10,234	Morro Bay-Los Osos, Urban Cluster	Renewal	TMDL
Central Coast	San Luis Obispo	Pismo Beach, City of	2003	7,655	Arroyo Grande-Grover Beach, Urbanized Area	Renewal	
Central Coast	San Luis Obispo	San Luis Obispo, City of	2003	45,119	San Luis Obispo, Urbanized Area	Renewal	TMDL
Central Coast	San Luis Obispo	San Luis Obispo, County of	2003	282,249	Other	Renewal	TMDL
Central Coast ¹	San Luis Obispo	San Miguel, Town of	2003	2,336	Regional Water Board Designation	Renewal	
Central Coast	Santa Barbara	Buellton, City of	2003	4,828	Solvang-Buellton-Santa Ynez, Urban Cluster	Renewal	

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Coast	Santa Barbara	Carpinteria, City of	2013	13,040	Santa Barbara, Urbanized Area	Renewal	
Central Coast	Santa Barbara	Goleta, City of	2003	29,888	Santa Barbara, Urbanized Area	Renewal	
Central Coast	Santa Barbara	Guadalupe, City of	2013	7,080	Guadalupe, Urban Cluster	Renewal	
Central Coast	Santa Barbara	Lompoc, City of	2003	42,434	Lompoc, Urbanized Area	Renewal	
Central Coast	Santa Barbara	Santa Barbara, City of	2003	88,410	Santa Barbara, Urbanized Area	Renewal	
Central Coast	Santa Barbara	Santa Barbara, County of	2003	444,766	Other	Renewal	
Central Coast	Santa Barbara	Santa Maria, City of	2003	99,553	Santa Maria, Urbanized Area	Renewal	
Central Coast	Santa Barbara	Solvang, City of	2003	5,245	Solvang-Buellton-Santa Ynez, Urban Cluster	Renewal	
Central Coast	Santa Clara	Gilroy, City of	2003	48,821	Gilroy-Morgan Hill, Urbanized Area	Renewal	TMDL
Central Coast	Santa Clara	Morgan Hill, City of	2003	37,882	Gilroy-Morgan Hill, Urbanized Area	Renewal	TMDL
Central Coast	Santa Clara	Santa Clara, County of	2003	1,907,000	Other	Renewal	TMDL
Central Coast	Santa Cruz	Capitola, City of	2003	9,918	Santa Cruz, Urbanized Area	Renewal	
Central Coast	Santa Cruz	Santa Cruz, City of	2003	59,946	Santa Cruz, Urbanized Area	Renewal	TMDL
Central Coast	Santa Cruz	Santa Cruz, County of	2003	264,370	Other	Renewal	TMDL
Central Coast	Santa Cruz	Scotts Valley, City of	2003	11,580	Santa Cruz, Urbanized Area	Renewal	TMDL
Central Coast	Santa Cruz	Watsonville, City of	2003	51,199	Watsonville, Urbanized Area	Renewal	TMDL
Los Angeles	Los Angeles	Avalon, City of	2013	3,728	Avalon, Urban Cluster	Renewal	
Central Valley, Sacramento	Calaveras	Calaveras, County of	2003	46,308	Other	Renewal	
Central Valley, Sacramento	Colusa	Colusa, County of	2013	21,558	Other	Renewal	TMDL
Central Valley, Sacramento	El Dorado	El Dorado, County of	2003	192,925	Other	Renewal	
Central Valley, Sacramento	El Dorado	Placerville, City of	2003	10,389	Placerville-Diamond Springs, Urban Cluster	Renewal	

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Valley, Sacramento	Lake	Clearlake, City of	2003	15,250	Clearlake, Urban Cluster	Renewal	TMDL
Central Valley, Sacramento	Lake	Lake, County of	2003	64,479	Other	Renewal	TMDL
Central Valley, Sacramento	Lake	Lakeport, City of	2003	4,753	Clearlake, Urban Cluster	Renewal	
Central Valley, Sacramento	Nevada	Grass Valley, City of	2003	12,860	Grass Valley, Urban Cluster	Renewal	
Central Valley, Sacramento	Placer	Auburn, City of	2003	13,330	Auburn-North Auburn, Urban Cluster	Renewal	
Central Valley, Sacramento	Placer	Lincoln City	2003	42,819	Sacramento, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Placer	Loomis, Town of	2003	6,430	Sacramento, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Placer	Placer, County of (R5)	2003	402,950	Other	Renewal	
Central Valley, Sacramento	Placer	Rocklin, City of	2003	56,974	Sacramento, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Placer	Roseville, City of	2003	118,788	Sacramento, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	San Joaquin	Escalon, City of	2013	7, 132	Stockton, Urbanized Area	Renewal	
Central Valley, Sacramento	San Joaquin	Lathrop, City of	2003	18,023	Manteca, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	San Joaquin	Lathrop, City of	2003	18,023	Stockton, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	San Joaquin	Lodi, City of	2003	62,134	Lodi, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	San Joaquin	Manteca, City	2003	347	Stockton, Urbanized Area	Renewal	TMDL

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Valley, Sacramento	San Joaquin	Manteca, City of	2003	67,096	Manteca, Urbanized Area	Renewal	
Central Valley, Sacramento	San Joaquin	Ripon, City of	2003	14,297	Manteca, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	San Joaquin	Tracy, City of	2003	82,922	Tracy, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Solano	Dixon, City of	2003	18,351	Dixon, Urban Cluster	Renewal	TMDL
Central Valley, Sacramento	Solano	Rio Vista, City of	2003	7,360	Rio Vista, Urban Cluster	Renewal	TMDL
Central Valley, Sacramento	Solano	Solano, County of (Region 5S)	2003	124,995	Other	Renewal	TMDL
Central Valley, Sacramento	Solano	Vacaville, City of	2003	92,428	Fairfield, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Solano	Vacaville, City of	2003	92,428	Vacaville, Urbanized Area	Renewal	
Central Valley, Sacramento	Stanislaus	Ceres, City of	2003	45,417	Modesto, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Stanislaus	Hughson, City of	2003	6,640	Modesto, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Stanislaus	Newman, City of	2013	10,224	Newman, Urban Cluster	Renewal	
Central Valley, Sacramento	Stanislaus	Oakdale, City of	2003	20,675	Modesto, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Stanislaus	Patterson, City of	2003	20,413	Patterson, Urban Cluster	Renewal	TMDL
Central Valley, Sacramento	Stanislaus	Riverbank, City of	2003	22,678	Modesto, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Stanislaus	Stanislaus, County of	2003	550,08	Other	Renewal	TMDL

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Valley, Sacramento	Stanislaus	Turlock, City of	2003	68,549	Turlock, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Sutter	Sutter, County of	2003	96,385	Other	Renewal	TMDL
Central Valley, Sacramento	Sutter	Yuba, City of	2003	64,925	Yuba City, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Yolo	Davis, City of	2003	65,622	Davis, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Yolo	West Sacramento, City of	2003	48,744	Sacramento, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Yolo	Woodland, City of	2003	55,468	Woodland, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Yolo	Yolo, County of	2003	219,728	Other	Renewal	TMDL
Central Valley, Sacramento	Yuba	Marysville, City of	2003	12,072	Yuba City, Urbanized Area	Renewal	TMDL
Central Valley, Sacramento	Yuba	Yuba, County of	2003	80,160	Other	Renewal	TMDL
Central Valley, Fresno	Fresno	Coalinga, City of	2013	13,380	Coalinga, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Kingsburg, City of	2003	11,382	Selma, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Mendota, City of	2013	11,014	Mendota, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Parlier, City of	2013	14,494	Parlier, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Reedley, City of	2003	24,194	Reedley-Dinuba, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Sanger, City of	2013	24,270	Sanger, Urban Cluster	Renewal	
Central Valley, Fresno	Fresno	Selma, City of	2003	23,219	Selma, Urban Cluster	Renewal	
Central Valley, Fresno	Kern	Delano, City of	2013	38,824	Delano, Urbanized Area	Renewal	
Central Valley, Fresno	Kern	Tehachapi, City of	2013	14,414	Tehachapi-Golden Hills, Urban Cluster	Renewal	
Central Valley, Fresno	Kern	Wasco, City of	2013	25,545	Wasco, Urban Cluster	Renewal	

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Valley, Fresno	Kings	Hanford, City of	2003	53,967	Hanford, Urbanized Area	Renewal	
Central Valley, Fresno	Kings	Kings, County of	2003	152,692	Other	Renewal	
Central Valley, Fresno	Kings	Lemoore, City of	2003	24,531	Hanford, Urbanized Area	Renewal	
Central Valley, Fresno	Madera	Chowchilla, City of	2013	18,720	Chowchilla, Urban Cluster	Renewal	
Central Valley, Fresno	Madera	Madera, City of	2003	61,416	Madera, Urbanized Area	Renewal	TMDL
Central Valley, Fresno	Madera	Madera, County of	2003	66,523	Other	Renewal	TMDL
Central Valley, Fresno	Merced	Atwater, City of	2003	28,168	Merced, Urbanized Area	Renewal	TMDL
Central Valley, Fresno	Merced	Livingston, City of	2003	13,058	Turlock, Urbanized Area	Renewal	TMDL
Central Valley, Fresno	Merced	Los Banos, City of	2003	35,972	Los Banos, Urban Cluster	Renewal	TMDL
Central Valley, Fresno	Merced	Merced, City of	2003	78,958	Merced, Urbanized Area	Renewal	TMDL
Central Valley, Fresno	Merced	Merced, County of	2003	279,252	Other	Renewal	TMDL
Central Valley, Fresno	Tulare	Dinuba, City of	2013	21,453	Reedley-Dinuba, Urban Cluster	Renewal	
Central Valley, Fresno	Tulare	Exeter, City of	2003	10,334	Visalia, Urbanized Area	Renewal	
Central Valley, Fresno	Tulare	Farmersville, City of	2003	10,588	Visalia, Urbanized Area	Renewal	
Central Valley, Fresno	Tulare	Porterville, City of	2003	54,165	Porterville, Urbanized Area	Renewal	
Central Valley, Fresno	Tulare	Tulare, City of	2003	59,278	Visalia, Urbanized Area	Renewal	
Central Valley, Fresno	Tulare	Tulare, County of	2003	468,680	Other	Renewal	TMDL
Central Valley, Fresno	Tulare	Visalia, City of	2003	124,442	Visalia, Urbanized Area	Renewal	
Central Valley, Redding	Butte	Paradise, Town of	2003	26,218	Paradise, Urban Cluster	Renewal	
Central Valley, Redding	Shasta	Anderson, City of	2013	9,932	Redding, Urbanized Area	Renewal	TMDL
Central Valley, Redding	Shasta	Redding, City of	2013	89,861	Redding, Urbanized Area	Renewal	TMDL
Central Valley, Redding	Shasta	Shasta, County of	2013	179,027	Other	Renewal	TMDL

Regional Water Board	County	Traditional Permittee Name	Year of Designation	Population 2010	Urbanized Area/ Urban Cluster Name/Other	Status (Designation Criteria)	Monitoring Type
Central Valley, Redding	Shasta	Shasta Lake, City of	2013	10,164	Redding, Urbanized Area	Renewal	
Central Valley, Redding	Tehama	Red Bluff, City of	2013	14,076	Red Bluff, Urban Cluster	Renewal	TMDL
Lahontan, South Lake Tahoe	Lassen	Susanville, City of	2013	17,947	Susanville, Urban Cluster	Renewal	
Lahontan, South Lake Tahoe	Nevada	Truckee, Town of	2003	16,180	Truckee, Urban Cluster	Renewal	TMDL
Lahontan, South Lake Tahoe	Placer	Placer, County of (R6)	2003	16,856	Other	Renewal	TMDL
Lahontan, Victorville	San Bernardino	Apple Valley Town	2003	69,135	Victorville-Hesperia, Urbanized Area	Renewal	
Lahontan, Victorville	San Bernardino	Barstow, City of	2013	22, 639	Riverside-San Bernardino, Urbanized Area	Renewal	
Lahontan, Victorville	San Bernardino	Hesperia, City of	2003	90,173	Victorville-Hesperia, Urbanized Area	Renewal	
Lahontan, Victorville	San Bernardino	San Bernardino, County of	2003	2,189,000	Other	Renewal	
Lahontan, Victorville	San Bernardino	Victorville, City of	2003	115,903	Victorville-Hesperia, Urbanized Area	Renewal	
Colorado River	Imperial	Brawley, City of	2003	24,953	Brawley, Urban Cluster	Renewal	
Colorado River	Imperial	Calexico, City of	2003	38,572	El Centro-Calexico, Urbanized Area	Renewal	
Colorado River	Imperial	El Centro, City of	2003	42,598	El Centro-Calexico, Urbanized Area	Renewal	
Colorado River	Imperial	Imperial, City of	2003	14,758	El Centro-Calexico, Urbanized Area	Renewal	
Colorado River	Imperial	Imperial, County of	2003	180,267	Other	Renewal	

Table A6.2. Census Designated Places for Implementation by Designated County -- Traditional Permittees

Table Note: Table A6.2 provides the list of census designated places for which the designated county is required to cover. Designated counties are listed in Table A6.1.

Regional Water Board	Designated County	Place Name of Census Designated Place	Year of Designation	Population 2010	Designation Criteria	Status
North Coast	Humboldt	Bayview	2013	2,510	Eureka, Urban Cluster	Renewal
North Coast	Humboldt	Cutten	2013	3,108	Eureka, Urban Cluster	Renewal
North Coast	Humboldt	Garberville	[Year of permit adoption]	1,361	See Fact Sheet for Regional Water Board Designation	New
North Coast	Humboldt	Humboldt Hill	2013	3,414	Eureka, Urban Cluster	Renewal
North Coast	Humboldt	McKinleyville	2003	15,177	Arcata-McKinleyville, Urban Cluster	Renewal
North Coast	Humboldt	Myrtle town	2013	4,675	Eureka, Urban Cluster	Renewal
North Coast	Humboldt	Pine Hills	2013	3,108	Eureka, Urban Cluster	Renewal
North Coast	Humboldt	Redway	[Year of permit adoption]	1,315	Regional Water Board Designation	New
North Coast	Humboldt	Ridgewood Heights	2013	4,812	Regional Water Board Designation	Renewal
North Coast	Humboldt	Rosewood	2013	35,532	Regional Water Board Designation	Renewal
North Coast	Humboldt	Samoa	[Year of permit adoption]	223	Regional Water Board Designation	New
San Francisco Bay	Marin	Black Point-Green Point	2003	1,306	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Kentfield	2013	6,485	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Lucas Valley-Marinwood	2003	6,094	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Strawberry	2013	5,393	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Tamalpais-Homestead Valley	2003	10,735	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Woodacre	2003	1,348	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Black Point-Green Point	2003	1,306	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Kentfield	2013	6,485	San Francisco-Oakland, Urbanized Area	Renewal
San Francisco Bay	Marin	Lucas Valley-Marinwood	2003	6,094	San Francisco-Oakland, Urbanized Area	Renewal

Regional Water Board	Designated County	Place Name of Census Designated Place	Year of Designation	Population 2010	Designation Criteria	Status
Central Coast	Monterey	Carmel Valley Village	2003	4,407	Carmel Valley Village, Urban Cluster	Renewal
Central Coast	Monterey	Castroville	2003	6,481	Salinas, Urbanized Area	Renewal
Central Coast	Monterey	Elkhorn	2013	12,723	Salinas, Urbanized Area	Renewal
Central Coast	Monterey	Las Lomas	2003	3,024	Watsonville, Urbanized Area	Renewal
Central Coast	Monterey	Moss Landing	2003	204	Regional Water Board Designation	Renewal
Central Coast	Monterey	Pajaro	2003	3,070	Watsonville, Urbanized Area	Renewal
Central Coast	Monterey	Prunedale	2003	17,560	Salinas, Urbanized Area	Renewal
Central Coast	Monterey	Aromas	2013	2,650	Regional Board Designation	Renewal
Central Coast	Monterey	Pine Canyon	[Year of permit adoption]	1,822	King City, Urbanized Area	New
Central Coast	Monterey	Boronda	[Year of permit adoption]	1,710	Salinas, Urbanized Area	New
Central Coast	San Luis Obispo	Avila Beach	[Year of permit adoption]	1,627	Arroyo Grande-Grover Beach, Urbanized Area	New
Central Coast	San Luis Obispo	Los Berros	[Year of permit adoption]	641	Arroyo Grande-Grover Beach, Urbanized Area	New
Central Coast	San Luis Obispo	Los Ranchos	[Year of permit adoption]	193	San Luis Obispo, Urbanized Area	New
Central Coast	San Luis Obispo	Edna	[Year of permit adoption]	1,477	San Luis Obispo, Urbanized Area	New
Central Coast	San Luis Obispo	Garden Farms	2013	386	El Paso de Robles (Paso Robles) - Atascadero, Urbanized Area	Renewal
Central Coast	San Luis Obispo	Callendar	2013	124	Nipomo, Urban Cluster	Renewal
Central Coast	San Luis Obispo	Oceano	2003	7,183	Arroyo Grande-Grover Beach, Urbanized Area	Renewal
Central Coast	San Luis Obispo	San Miguel, Town of	2013	2,336	Regional Water Board Designation	Renewal
Central Coast	San Luis Obispo	Santa Margarita	2013	1,259	El Paso de Robles (Paso Robles) - Atascadero, Urbanized Area	Renewal

Regional Water Board	Designated County	Place Name of Census Designated Place	Year of Designation	Population 2010	Designation Criteria	Status
Central Coast	San Luis Obispo	Templeton	2003	3,006	El Paso de Robles (Paso Robles) - Atascadero, Urbanized Area	Renewal
Central Coast	San Luis Obispo	Cambria, Town of	20013	6,032	Cambria, Urban Cluster	Renewal
Central Coast	San Luis Obispo	Blacklake	2013	930	Nipomo, Urban Cluster	Renewal
Central Coast	San Luis Obispo	Woodlands	2013	576	Arroyo Grande-Grover Beach, Urbanized Area	Renewal
Central Coast	San Luis Obispo	Cayucos	2013	2,592	Morro Bay-Los Osos, Urban Cluster	Renewal
Central Coast	San Luis Obispo	Lake Nacimiento	2013	2,411	Regional Water Board Designation	Renewal
Central Coast	San Luis Obispo	Nipomo	2003	16,714	Nipomo, Urban Cluster	Renewal
Central Coast	San Luis Obispo	Shandon	2013	1,295	Regional Water Board Designation	Renewal
Central Coast	Santa Barbara	Hope Ranch	2013	16,345	Regional Water Board Designation	Renewal
Central Coast	Santa Barbara	Isla Vista	2003	23,096	Santa Barbara, Urbanized Area	Renewal
Central Coast	Santa Barbara	Los Olivos	2003	1,132	Solvang-Buellton-Santa Ynez, Urban Cluster	Renewal
Central Coast	Santa Barbara	Mission Canyon	2013	2,381	Regional Water Board Designation	Renewal
Central Coast	Santa Barbara	Mission Hills	2013	3,576	Regional Water Board Designation	Renewal
Central Coast	Santa Barbara	Montecito	2013	8,965	Santa Barbara, Urbanized Area	Renewal
Central Coast	Santa Barbara	Orcutt	2003	28,905	Santa Maria, Urbanized Area	Renewal
Central Coast	Santa Barbara	Santa Ynez	2003	4,418	Solvang-Buellton-Santa Ynez, Urban Cluster	Renewal
Central Coast	Santa Barbara	Summerland	2003	1,448	Santa Barbara, Urbanized Area	Renewal
Central Coast	Santa Barbara	Toro Canyon	2013	1,508	Regional Water Board Designation	Renewal
Central Coast	Santa Barbara	Vandenberg Village	2003	6,497	Lompoc, Urbanized Area	Renewal
Central Coast	Santa Clara	San Martin	2003	7,027	Gilroy-Morgan Hill, Urbanized Area	Renewal
Central Coast	Santa Cruz	Aptos	2003	6,220	Santa Cruz, Urbanized Area	Renewal
Central Coast	Santa Cruz	Ben Lomond	2013	6,234	Santa Cruz, Urbanized Area	Renewal

Regional Water Board	Designated County	Place Name of Census Designated Place	Year of Designation	Population 2010	Designation Criteria	Status
Central Coast	Santa Cruz	Interlaken	2013	7,321	Watsonville, Urbanized Area	Renewal
Central Coast	Santa Cruz	Live Oak	2013	17,158	Santa Cruz, Urbanized Area	Renewal
Central Coast	Santa Cruz	Pleasure Point	2013	5846	Santa Cruz, Urbanized Area	Renewal
Central Coast	Santa Cruz	Rio del Mar	2013	9,216	Santa Cruz, Urbanized Area	Renewal
Central Coast	Santa Cruz	Soquel	2013	9,644	Santa Cruz, Urbanized Area	Renewal
Central Valley, Sacramento	Stanislaus	Bret Harte	2013	5,152	Modesto, Urbanized Area	Renewal
Central Valley, Sacramento	Stanislaus	Empire	2003	4,189	Modesto, Urbanized Area	Renewal
Central Valley, Sacramento	Stanislaus	Keyes	2003	5,601	Modesto, Urbanized Area	Renewal
Central Valley, Sacramento	Stanislaus	Salida	2003	13,722	Modesto, Urbanized Area	Renewal
Central Valley, Sacramento	Stanislaus	West Modesto	2013	5,682	Modesto, Urbanized Area	Renewal
Central Valley, Sacramento	Yolo	UC Davis	2013	5,786	Davis, Urbanized Area	Renewal
Central Valley, Sacramento	Yuba	Linda	2003	17,773	Yuba City, Urbanized Area	Renewal
Central Valley, Sacramento	Yuba	Olivehurst	2003	13,656	Yuba City, Urbanized Area	Renewal
Central Valley, Fresno	Tulare	East Porterville	2013	6,767	Porterville, Urbanized Area	Renewal
Central Valley, Fresno	Tulare	Goshen	2003	3,006	Visalia, Urbanized Area	Renewal
Central Valley, Fresno	Tulare	Strathmore	2003	2,819	Porterville, Urbanized Area	Renewal

Table A6.3 Non-Traditional Permittees

Note for Table A6.3: the acronym “ASBS” means Areas of Special Biological Significance

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
North Coast, San Francisco, Central Coast, Central Valley, Colorado River, Santa Ana, San Diego	Multiple	Parks and Recreation, Department of	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Sonoma	Sonoma State University	2013	California State University	Renewal	
North Coast	Sonoma	Petaluma Coast Guard Training Center	2013	Homeland Security, Department of	Renewal	
San Francisco Bay	Santa Clara	San Jose Airport	2013	San Jose Airport	Renewal	
San Francisco Bay	Alameda	Federal Correctional Institution, Dublin	2013	Bureau of Prisons	Renewal	
San Francisco Bay	Solano	California State University Maritime Academy	2013	California State University	Renewal	
San Francisco Bay	Alameda	California State University, East Bay - Hayward Campus	2013	California State University	Renewal	
San Francisco Bay	Contra Costa	California State University, East Bay - Concord Campus	2013	California State University	Renewal	
San Francisco Bay	Santa Clara County	San José State University	2013	California State University	Renewal	
San Francisco Bay	Marin	San Quentin State Prison	2013	Corrections and Rehabilitation, Department of	Renewal	
San Francisco Bay	Solano	Travis Air Force Base	2013	Defense, Department of	Renewal	
San Francisco Bay	Santa Clara	Agnews Developmental Center East and West	2013	Developmental Services, Department of	Renewal	
San Francisco Bay	Sonoma	Sonoma Developmental Center	2003	Developmental Services, Department of	Renewal	
San Francisco Bay	Sonoma	Sonoma-Marin Fair	2013	4 th District Agricultural Association	Renewal	
San Francisco Bay	Napa	Napa County Fairgrounds	2013	Napa County	Renewal	
San Francisco Bay	Alameda	Port of Oakland	2013	Port of Oakland	Renewal	
San Francisco Bay	San Mateo	Port of Redwood City	2013	Port of Redwood City	Renewal	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
San Francisco Bay	Statewide	California High Speed Rail Authority	2013	Special District	Renewal	
San Francisco Bay	San Francisco, San Mateo, Alameda, Contra Costa, and Santa Clara	Bay Area Rapid Transit	2013	Special District	Renewal	
San Francisco Bay	Santa Clara, San Francisco, and San Mateo	CalTrain	2013	Special District	Renewal	
San Francisco Bay	Marin, Sonoma, San Francisco, and Contra Costa	Golden Gate Bridge, Highway and Transportation District	2013	Special District	Renewal	
San Francisco Bay	Santa Clara	Valley Transit Authority (VTA)	2013	Special District	Renewal	
San Francisco Bay	Alameda	Alameda Coast Guard Integrated Support Command	2013	Homeland Security, Department of	Renewal	
San Francisco Bay	Alameda	University of California, Berkeley	2013	University of California	Renewal	
San Francisco Bay	San Francisco	University of California, San Francisco	2013	University of California	Renewal	
Central Coast	Monterey	California State University, Monterey Bay	2013	California State University	Renewal	
Central Coast	Monterey	United States Army Presidio of Monterey; and Defense Language Institute	2013	Defense, Department of	Renewal	
Central Coast	Monterey	Monterey County Fairgrounds	2013	7 th District Agricultural Association	Renewal	
Central Coast	Santa Barbara	United States Penitentiary, Lompoc	2013	Bureau of Prisons	Renewal	
Central Coast	Santa Barbara	Federal Correctional Institution, Lompoc	2013	Bureau of Prisons	Renewal	
Central Coast	Santa Barbara	Vandenberg Air Force Base	2003	Department of Defense	Renewal	ASBS ¹
Central Coast	Santa Barbara	Santa Maria Fairpark	2013	37 th District Agricultural Association	Renewal	
Central Coast	Santa Barbara	Earl Warren Showgrounds (National Horse Show)	2013	19 th District Agricultural Association	Renewal	
Central Coast	Santa Barbara	University of California, Santa Barbara	2003	University of California	Renewal	

¹ Pillar Point Air Force Station, James V. Fitzgerald ASBS in in San Mateo County

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
Central Coast	San Luis Obispo	California Polytechnic State University, San Luis Obispo	2013	California State University	Renewal	
Central Coast	San Luis Obispo	Los Osos Community Services District	2003	Community Services District	Renewal	
Central Coast	San Luis Obispo	Templeton Community Services District	2003	Community Services District	Renewal	
Central Coast	San Luis Obispo	California Men's Colony	2013	Corrections and Rehabilitation, Department of	Renewal	
Central Coast	Santa Cruz	Santa Cruz County Fairgrounds	2013	14 th District Agricultural Association	Renewal	
Central Coast	Santa Cruz	University of California, Santa Cruz	2003	University of California	Renewal	
Central Coast	San Luis Obispo	Mid-State Fairgrounds	2013	16 th District Agricultural Association	Renewal	
Los Angeles	Los Angeles	Federal Correctional Institution, Terminal Island	2013	Bureau of Prisons	Renewal	
Los Angeles	Los Angeles	California State University, Los Angeles	2013	California State University	Renewal	
Los Angeles	Los Angeles	California State University, Northridge	2013	California State University	Renewal	
Los Angeles	Ventura	California State University, Channel Islands	2013	California State University	Renewal	
Los Angeles	Los Angeles	California State University, Long Beach	2013	California State University	Renewal	
Los Angeles	Los Angeles	California State Polytechnic University, Pomona	2013	California State University	Renewal	
Los Angeles	Los Angeles	California State University, Dominguez Hills	2013	California State University	Renewal	
Los Angeles	Ventura	Naval Base Ventura County; includes Port Hueneme and Point Mugu	2013	Defense, Department of	Renewal	
Los Angeles	Ventura	Ventura County Fairgrounds (Seaside Park and Ventura County Fairgrounds)	2013	31 st District Agricultural Association	Renewal	
Los Angeles	Los Angeles	University of California, Los Angeles	2013	University of California	Renewal	
Los Angeles	Los Angeles	Long Beach Veterans Affairs Medical Center	2013	Veteran Affairs	Renewal	
Los Angeles	Los Angeles	Veterans Affairs Greater Los Angeles Healthcare System (GLA)	2013	Veteran Affairs	Renewal	
Central Valley, Fresno	Merced	United States Penitentiary, Atwater	2013	Bureau of Prisons	Renewal	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
Central Valley, Fresno	Kern	California State University, Bakersfield	2013	California State University	Renewal	
Central Valley, Fresno	Tulare	Porterville Developmental Center	2013	Developmental Services, Department of	Renewal	
Central Valley, Fresno	Madera	Madera County Fairgrounds	2013	21A District Agricultural Association	Renewal	
Central Valley, Fresno	Kern	Kern County Fairgrounds	2013	15 th District Agricultural Association	Renewal	
Central Valley, Fresno	Tulare	Tulare County Fairgrounds	2013	24 th District Agricultural Association	Renewal	
Central Valley, Fresno	Kings	Kings County Fairgrounds	2013	24A District Agricultural Association	Renewal	
Central Valley, Fresno	Fresno	The Big Fresno Fair	2013	21 st District Agricultural Association	Renewal	
Central Valley, Fresno	Merced	Merced County Fairgrounds	2013	35 th District Agricultural Association	Renewal	
Central Valley, Fresno	Merced	University of California, Merced	2013	University of California	Renewal	
Central Valley, Fresno	Kings	Lemoore Naval Air Station	2013	Defense, Department of	Renewal	
Central Valley, Redding	Butte	California State University, Chico	2013	California State University	Renewal	
Central Valley, Redding	Butte	Silver Dollar Fairgrounds	2013	3 rd District Agricultural Association	Renewal	
Central Valley, Redding	Shasta	Shasta County Fairgrounds	2013	27 th District Agricultural Association	Renewal	
Central Valley, Sacramento	Sacramento	California State University, Sacramento	2003	California State University	Renewal	
Central Valley, Sacramento	Stanislaus	California State University, Stanislaus	2013	California State University	Renewal	
Central Valley, Sacramento	Sacramento	Rancho Murieta Community Services District	2003	Community Services District	Renewal	
Central Valley, Sacramento	San Joaquin	Mountain House Community Services District	2003	Community Services District	Renewal	
Central Valley, Sacramento	Sacramento	Cosumnes Community Services District	2003	Community Services District	Renewal	
Central Valley, Sacramento	Solano	California State Prison, Solano County	2013	Corrections and Rehabilitation, Department of	Renewal	
Central Valley, Sacramento	San Joaquin	Deuel Vocational Institution	2013	Corrections and Rehabilitation, Department of	Renewal	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
Central Valley, Sacramento	Sacramento	Folsom State Prison	2013	Corrections and Rehabilitation, Department of	Renewal	
Central Valley, Sacramento	Sacramento	California State Prison, Sacramento	2013	Corrections and Rehabilitation, Department of	Renewal	
Central Valley, Sacramento	Solano	California Medical Facility	2013	Corrections and Rehabilitation, Department of	Renewal	
Central Valley, Sacramento	Contra Costa	Contra Costa County Fairgrounds	2013	23 rd District Agricultural Association	Renewal	
Central Valley, Sacramento	Sutter	Sutter County Fairgrounds	2013	13 th District Agricultural Association	Renewal	
Central Valley, Sacramento	Yolo	Yolo County Fairgrounds	2013	40 th District Agricultural Association	Renewal	
Central Valley, Sacramento	Stanislaus	Stanislaus County Fairgrounds	2013	38 th District Agricultural Association	Renewal	
Central Valley, Sacramento	San Joaquin	San Joaquin County Fairgrounds	2013	2 nd District Agricultural Association	Renewal	
Central Valley, Sacramento	Sacramento	California Exposition and State Fair	2003	Exposition & State Fair, California	Renewal	
Central Valley, Sacramento	Sacramento	Elk Grove Unified School District	2003	School District, Elk Grove Unified	Renewal	
Central Valley, Sacramento	Yolo	University of California, Davis	2003	University of California	Renewal	
Lahontan, Victorville	San Bernadino	Federal Correctional Institution, Victorville	2013	Bureau of Prisons	Renewal	
Lahontan, Victorville	San Bernadino	San Bernardino County Fairgrounds	2013	28 th District Agricultural Association	Renewal	
Santa Ana	Orange	Los Alamitos Air Force Reserve Command (AFRC)	2013	California Army National Guard	Renewal	
Santa Ana	Orange	California State University, Fullerton	2013	California State University	Renewal	
Santa Ana	San Bernadino	California State University, San Bernardino	2013	California State University	Renewal	
Santa Ana	San Bernadino	California Institution for Men	2013	Corrections and Rehabilitation, Department of	Renewal	
Santa Ana	San Bernadino	California Institution for Women	2013	Corrections and Rehabilitation, Department of	Renewal	
Santa Ana	Riverside	California Rehabilitation Center	2013	Corrections and Rehabilitation, Department of	Renewal	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
Santa Ana	Orange	Fairview Developmental Center	2013	Developmental Services, Department of	Renewal	
Santa Ana	Riverside	March Air Force Base	2013	Department of Defense	Renewal	
Santa Ana	Orange	Orange County Fairgrounds	2013	32 nd District Agricultural Association	Renewal	
Santa Ana	Orange	University of California, Irvine	2013	University of California	Renewal	
Santa Ana	Riverside	University of California, Riverside	2013	University of California	Renewal	
Santa Ana	San Bernadino	Jerry L. Pettis Memorial Veterans Affairs Medical Center	2013	Veteran Affairs	Renewal	
San Diego	San Diego	San Diego State University	2013	California State University	Renewal	
San Diego	San Diego	California State University, San Marcos	2013	California State University	Renewal	
San Diego	San Diego	R J Donovan Correctional Facility at Rock Mountain	2013	Corrections and Rehabilitation, Department of	Renewal	
San Diego	San Diego	Miramar Marine Corps Air Station	2013	Defense, Department of	Renewal	
San Diego	San Diego	Camp Pendleton	2013	Defense, Department of	Renewal	
San Diego	San Diego	Del Mar Fairgrounds	2003	22 nd District Agricultural Association	Renewal	
San Diego	San Diego	North County Transit District (NCTD)	2013	Transportation Agency	Renewal	
San Diego	San Diego	University of California, San Diego	2013	University of California	Renewal	
San Diego	San Diego	Veterans Affairs San Diego Healthcare System	2013	Veteran Affairs	Renewal	
San Diego	San Diego	San Diego Metropolitan Transit System	2013	Special District	Renewal	

Table A6.4 Parks – for Implementation by Department of Parks and Recreation and by Others

Note for Table A6.4: Table A6.4 provides the list of parks where the Department of Parks and Recreation is required to implement their MS4 program. The Department of Parks and Recreation is designated as a Non-Traditional Permittee in Table A6.3. The Department of Parks and Recreation implements their stormwater program as one entity statewide. The parks listed in Table A6.4 are not separately permitted entities. The acronym “ASBS” means Areas of Special Biological Significance. Other parks and applicable agencies are also listed.

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
North Coast	Mendocino	Caspar Headlands State Beach	2013	Parks and Recreation, Department of	Renewal	
North Coast	Mendocino	Caspar Headlands State Reserve	2013	Parks and Recreation, Department of	Renewal	
North Coast	Del Norte	Del Norte Coast Redwoods State Park	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Humboldt	Humboldt Lagoons State Park	2013	Parks and Recreation, Department of	Renewal	
North Coast	Mendocino	Jug Handle State Natural Reserve	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Humboldt	Shelter Cove Community Area	2013	Humboldt County	Renewal	ASBS
North Coast	Mendocino	Mendocino Headlands State Park	2013	Parks and Recreation, Department of	Renewal	
North Coast	Del Norte	Mill Creek Property State Park	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Humboldt	Patrick's Point State Park	2013	Parks and Recreation, Department of	Renewal	
North Coast	Del Norte	Pelican State Beach	2013	Parks and Recreation, Department of	Renewal	
North Coast	Mendocino	Point Cabrillo Light Station Property	2013	Parks and Recreation, Department of	Renewal	
North Coast	Humboldt	Prairie Creek Redwoods State Park	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Mendocino	Sinkyone Wilderness State Park	2013	Parks and Recreation, Department of	Renewal	
North Coast	Del Norte	Tolowa Dunes State Park	2013	Parks and Recreation, Department of	Renewal	
North Coast	Humboldt	Trinidad State Beach	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Humboldt	Grizzly Redwoods State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Mendocino	Navarro River Redwoods State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Mendocino	Mendocino Woodlands State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	No monitoring required
North Coast	Sonoma	Armstrong Redwoods State Natural Reserve	[Year of permit adoption]	Parks and Recreation, Department of	New	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
North Coast	Mendocino	Hendy Woods State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Humboldt	Standish-Hickey Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Humboldt	Benbow State Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Humboldt	Richardson Grove State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Sonoma	Trione-Annadel State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Sonoma	Austin Creek State Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Sonoma	Gerstle Cove	2013	Parks and Recreation, Department of	Renewal	ASBS
North Coast	Sonoma	Salt Point State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Humboldt	Humboldt Redwoods State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Sonoma	Sonoma Coast State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
North Coast	Del Norte	Jedediah Smith Redwood State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Francisco Bay	Marin	Golden Gate National Recreation Area	[Year of permit adoption]	National Park Service	New	TMDL
San Francisco Bay	Marin	China Camp State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	TMDL
San Francisco Bay	Marin	Golden Gate National Recreation Area	[Year of permit adoption]	National Park Service	New	TMDL
San Francisco Bay	Marin	McNears Beach Park	[Year of permit adoption]	Marin, County of	New	TMDL
San Francisco Bay	San Francisco	Candlestick Point State Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	TMDL
San Francisco Bay	Marin	Golden Gate National Recreation Area	2024	National Park Service	New	TMDL
San Francisco Bay	San Mateo	Montara State Beach	2013	Parks and Recreation, Department of	Renewal	ASBS

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
San Francisco Bay	Marin	China Camp State Park	2024	Parks and Recreation, Department of	New	TMDL
Central Coast	Monterey	Carmel River State Beach	2013	Parks and Recreation, Department of	Renewal	
Central Coast	Monterey	Julia Pfeiffer Burns State Park	2013	Parks and Recreation, Department of	Renewal	
Central Coast	Monterey	Point Lobos State Reserve	2013	Parks and Recreation, Department of	Renewal	
Central Coast	San Luis Obispo	Oceano Dunes State Vehicular Recreational Area	2013	Parks and Recreation, Department of	Renewal	
Central Coast	San Luis Obispo	Pismo State Beach	2013	Parks and Recreation, Department of	Renewal	
Central Coast	San Mateo	Año Nuevo State Park	2013	Parks and Recreation, Department of	Renewal	ASBS
Central Coast	San Mateo	Año Nuevo State Reserve	2013	Parks and Recreation, Department of	Renewal	ASBS
Central Coast	Monterey	Asilomar State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
Central Coast	Santa Cruz	Henry Cowell Redwoods State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
Central Coast	San Luis Obispo	Morro Bay State Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
Central Valley, Redding	Alameda and San Joaquin	Carnegie State Vehicular Recreation Area	2013	Parks and Recreation, Department of	Renewal	
Colorado River	Imperial	Picacho State Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	
Colorado River	Riverside	Salton Sea State Recreation Area	[Year of permit adoption]	Parks and Recreation, Department of	New	
Santa Ana	Orange	Crystal Cove State Park	2013	Parks and Recreation, Department of	Renewal	ASBS
San Diego	San Diego	Border Field State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	Cardiff State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	Carlsbad State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	Orange	Doheny State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	

Regional Water Board	County	Non-Traditional Permittee Name	Year of Designation	Agency	Status	Monitoring Type
San Diego	San Diego	Moonlight State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	Old Town San Diego State Historic Park	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	Orange	San Clemente State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	San Elijo State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	Silver Strand State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	South Carlsbad State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	
San Diego	San Diego	Torrey Pines State Beach	[Year of permit adoption]	Parks and Recreation, Department of	New	

ATTACHMENT C – NOTICE OF INTENT AND WAIVER CERTIFICATION REQUIREMENTS

OVERVIEW

This Attachment includes the requirements for submitting a Notice of Intent and a waiver certification application. Information on separate implementing entities, individual stormwater permits, and regional stormwater permits is also included.

C1. Notice of Intent Requirements when Designation Occurs After Adoption Date.

Permittees designated by a Regional Water Board after the Adoption Date of this Order shall submit their Notice of Intent and appropriate, technical information, and fee paid within 180 days of designation.

C2. Notice of Intent Requirements for New and Renewal Permittees

Unless a waiver or coverage under an individual or regional stormwater permit is approved by the applicable regional water board, the entities listed in Attachment A of this Order shall submit applications for new or renewal of coverage by the Effective Date of this Order. Census designated places are covered under the corresponding county's Notice of Intent.

Permittees shall submit the Notice of Intent information through SMARTS, which includes submitting the required attachments. Renewal Permittees are automatically invoiced for fees. New enrollees shall submit the information specified in items 1 through 6, below. Coverage under this Order will start upon the State Water Board's receipt of the following or upon the Effective Date of this Order, whichever is later.

1. Notice of Intent

Enter or confirm the following information directly into SMARTS:

Organization and Business Details:

Waste Discharge Identification Number (WDID)

Organization Name

Address

Address Line 2 (if applicable)

City, State, and Zip Code

Business Type

Federal Tax ID (if applicable)

Permittee Contact Information:

Contact First Name

Contact Last Name

Contact Title (if applicable)

Phone number

Email

Separate Implementing Entity Agreement: Yes No.

Census designated places: The county identifies each corresponding census designated place under its jurisdiction, as shown in Table A6.2.

Additional Information:

Did you have coverage under the previous Phase II Small MS4 Permit (2013-0001-DWQ and amendments)? Yes No

What is the population served by the jurisdiction?

Is the jurisdiction a Traditional or Non-Traditional

Phone number

Email

Billing Information:

Billing Name

Street Address

Address Line 2 (if applicable)

City, State, and Zip Code

Email

Contact First Name

Contact Last Name

Title (if applicable)

Phone number

2. Separate Implementing Entity

If the Permittee intends to share responsibilities for implementing one or more permit obligations with one or more other municipalities or entities (Separate Implementing Entity), the Permittee's Notice of Intent must describe which obligations each will be responsible for implementing.

3. Identification of Census Designated Places

Census designated places do not file a Notice of Intent or pay separate fees. The counties listed in Attachment A, Table A6.2, shall identify the corresponding census designated places in the county's Notice of Intent and shall pay the fees.

4. Fees

Submit the annual fee according to the current California Code of Regulations, title 23, chapter 9 fee schedule for NPDES stormwater permits. The current fee schedule is available on the State Water Board web page under the section titled [NPDES Stormwater Fees](#).

5. Boundary Map

Submit a complete boundary map through SMARTS that delineates jurisdictions as follows:

a. Boundaries

- 1) For cities, towns, and other incorporated areas, the boundary area is the incorporated area boundary.
- 2) For counties, boundaries include urbanized areas based on the 1990, 2000, and 2010 censuses and places identified in Attachment A, Table A6.2 (Census Designated Places for Implementation by Designated County Permittees) located within their jurisdiction. Boundaries must be proposed in the boundary map and may be developed in conjunction with the applicable Regional Water Board.

- b. City and county boundaries,
- c. Main arterial streets,
- d. Highways,
- e. Waterways, and
- f. Label adjacent MS4s.

6. Guidance Document

Permittees must submit a storm water program guidance document through SMARTS during its Notice of Intent process. The guidance document is the Permittee's plan for its stormwater program compliance process. The guidance document may be in spreadsheet, tabular or narrative format. The Permittee shall submit the guidance document that includes the following topics:

- a. Overall program planning.
- b. Identification of all Order requirements and responsible implementing

- entity.
- c. Renewal Permittees only: Brief description of each best management practice and its associated effectiveness included in the Permittee's stormwater management plan, developed under the prior permit, that establishes the specific local or tailored level of implementation that may be more protective of water quality than the minimum requirements of this Order.
 - d. Renewal Permittees only: Identification of whether the Permittee will maintain, reduce, or cease implementation of any locally-tailored best management practice that is more protective of water quality than the best management practices required by this Order.
 - e. Renewal Permittees only: For any more protective, locally-tailored best management practice which the renewal Permittee will reduce or cease implementation, the renewal Permittee must demonstrate to the Executive Officer of the relevant Regional Water Board that the reduction or cessation is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges. The demonstration by the Permittee will be subject to public comment before any approval by the Executive Officer of reduction or cessation of best management practices. In no instance may the renewal Permittee reduce or cease a best management practice if it is required by the minimum standards set by this Order.

C3. Waiver Application and Recertification Requirements

All Waiver Applications and annual Waiver Recertifications must be submitted to the applicable Regional Water Board Executive Officer, uploaded to SMARTS, and a copy provided to the State Water Board Executive Director, with copy to the Municipal Stormwater Unit.

1. The Permittee must submit the following with its Waiver Application for the Regional Water Board or its Executive Officer's consideration of approval:
 - a. A letter certifying that its discharges do not cause or contribute to, or have the potential to cause or contribute to, a water quality impairment,
 - b. Documentation that the Permittee satisfies the conditions of one of the Waiver Options below,
 - c. A Waiver Application fee plus any applicable surcharge.
2. A Waiver will only be in effect upon the Permittee's receipt of approval from the Regional Water Board or its Executive Officer.
3. A Waiver will only remain in effect provided that the Permittee continues to

satisfy the conditions of its Waiver Option and the following is submitted annually every 12 months after the application was processed by the State Water Board Fee Branch.

- a. An Annual Waiver Recertification letter, certifying that the Permittee's discharges do not cause or contribute to, or have the potential to cause or contribute to, a water quality impairment, and;
 - b. An annual renewal fee plus any applicable surcharge.
4. Denial of a Waiver Request and Dispute Resolution

If a Permittee is not satisfied with a waiver denial, it may dispute that determination in compliance with the Dispute Resolution provision of this Order.

C3.1 Waiver Options

This Order includes three waiver options, which are described in sections C3.1.1, C3.1.2, and C3.1.3.

C3.1.1 Waiver Option 1

- a. The population served by the Permittee's MS4 is less than 1,000;
- b. The system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the NPDES storm water program; and
- c. If the Permittee's Small MS4 discharges any pollutants identified as a cause of impairment of any water body to which it discharges, stormwater controls are not needed based on wasteload allocations that are part of a U.S. EPA approved or established TMDL that addresses the pollutants of concern.

C3.1.2 Waiver Option 2

- a. The population served by the system is less than 10,000;
- b. The Regional Water Board has evaluated all waters of the U.S. that receive a discharge from the MS4;
- c. For all such waters evaluated, the Regional Water Board has determined that stormwater best management practices are not needed based on wasteload allocations that are part of a U.S. EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern; and
- d. The Regional Water Board has determined that future discharges from the Permittee do not have the potential to result in exceedances of water quality

standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

- e. For purposes of this Waiver Option 2, pollutant(s) of concern include biochemical oxygen demand, sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the Permittee's MS4.

C3.1.3 Waiver Option 3

The Permittee's MS4 is located outside an urbanized area and the Permittee certifies that it is a community with a population served by the system and has a population of 20,000 or less with an annual median household income that is less than 80 percent of the statewide annual median household income.

C3.2 When Conditions of Waiver Application or Recertification or of a Waiver Option Are Not Met

If the Waiver Application and Recertification Requirements or the conditions of the Permittee's Waiver Option are not met by the Permittee for any reason, including that conditions have changed so that the Waiver Option selected is no longer applicable, then the Permittee must apply for coverage under this Order or an individual NPDES permit. Either the State Water Board Executive Director or applicable Regional Water Board Executive Officer may notify the Permittee of this obligation if it becomes aware that the conditions of the Permittee's Waiver Option do not or no longer apply to the Permittee.

ATTACHMENT D – PROVISIONS FOR TRADITIONAL PERMITTEES

OVERVIEW

This attachment describes the requirements with which Traditional MS4s, identified in Attachment A, Table A6.1, must comply.

D1. PROGRAM MANAGEMENT

D1.1 Legal Authority – Renewal and New Permittees

Within 1 year of the effective date of this Order, Renewal Small MS4 Permittees shall review and revise, as necessary, relevant ordinances, policies or other regulatory mechanisms, or adopt any new relevant ordinances, policies, or other regulatory mechanisms, to obtain legal authority, to the extent allowable under state or local law, to control, reduce, or eliminate pollutant discharges into and from its MS4 pursuant to the requirements of this Order. New Permittees shall do so within 2 years of the effective date of this Order or of the Permittee's effective date of designation, whichever is later. These ordinances, policies or other regulatory mechanisms shall include authority to:

1. Prohibit dumping or disposal of materials other than stormwater and authorized non-stormwater discharges into the Permittee's MS4;
2. Effectively prohibit non-stormwater discharges through the MS4. Detect and eliminate unauthorized non-stormwater discharges (illicit discharges) and illegal connections to the Permittee's MS4;
3. Respond to the discharge of spills into the MS4 or spills that may discharge into the MS4;
4. Require parties responsible for discharges in excess of incidental runoff from landscaped areas to implement actions necessary to prevent recurring discharges;
5. Require operators of construction sites, new development or redevelopment projects, and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of best management practices consistent with the current California Stormwater Quality Association Best Management Practice Handbooks or equivalent;

6. Require information necessary to assess compliance with this Order. The Permittee shall only require information in compliance with the Homeland Security Act or any other federal law that concerns security in the United States;
7. Review designs and proposals for new development and redevelopment to determine whether adequate best management practices will be installed, implemented, and maintained during construction and after final stabilization (post-construction);
8. Enter private property for the purpose of inspecting, at reasonable times, any facilities, equipment, practices, or operations for active or potential stormwater discharges, or non-compliance with local ordinances/standards or requirements in this Order, as consistent with any applicable state and federal laws and regulations;
9. Require responsible parties to promptly cease and desist discharging and cleanup and abate actual and threatened discharges, including the ability to:
 - a. Require responsible parties to abate and clean-up their illicit discharge or spill no later than within 72 hours of notification and to expedite clean-up of high-risk illicit discharges or spills;
 - b. Require abatement within 30 days of notification of uncontrolled sources of pollutants that could pose an environmental threat;
 - c. Perform clean-up and abatement work and bill the responsible party, if necessary;
 - d. Order the cessation of activities until activities resulting in pollutant discharges are adequately addressed or abated;
 - e. Require a revised timeframe when all parties agree that clean-up activities cannot be completed within the required timeframe. The responsible party shall provide written notification to the appropriate Regional Water Board within five business days of the determination that the timeframe requires revision.
10. Levy citations or administrative fines against responsible parties;
11. Require recovery and remediation costs from responsible parties; and
12. Impose more substantial civil or criminal sanctions (including referral to a city or district attorney) and escalate corrective response, consistent with its

Enforcement Response Plan for persistent non-compliance, repeat or escalating violations, or incidents of major environmental harm.

D1.2 Certification

The Permittee's authorized signatory or duly authorized representative shall certify that the Permittee has and will maintain full legal authority to implement and enforce each of the requirements contained in this Order. Renewal permittees shall submit a certification statement in their first annual report. New permittees shall submit a certification statement in their second annual report. The Permittee shall update its certification statement as necessary. The Permittee's certification statement shall include the following:

1. Identification of all departments within the Permittee's jurisdiction that conduct stormwater-related activities and their roles and responsibilities under this Order;
2. Citation of the Permittee's stormwater runoff-related ordinances or regulatory mechanisms, and identification of the requirements of this Order that correspond with each ordinance or regulatory mechanism;
3. Identification of the local administrative and legal procedures available to mandate compliance with stormwater-related ordinances and therefore with the conditions of this Order;
4. A description of the procedures to review, update, and implement stormwater-related ordinances and other regulatory mechanisms;
5. A statement that the Permittee will implement enforcement actions consistent with its Enforcement Response Plan; and
6. A statement that the Permittee has adequate legal authority to comply with all Order requirements.

D1.3 Enforcement Response Plan and Enforcement Tracking

1. Within 1 year of the effective date of this Order, each Renewal Permittee shall review and revise as necessary its existing Enforcement Response Plan. Each New Permittee shall develop and implement an Enforcement Response plan within 2 years of their effective date of designation. Enforcement Response Plans shall contain the following:
 - a. Enforcement procedures and responses to violations; and

- b. Procedures to address repeat and continuing violations by implementing progressively stricter responses as needed to achieve compliance.
 2. The Enforcement Response Plan shall describe the procedures the Permittee will implement for each of the following types of enforcement responses based on the type and severity of violation:
 - a. Verbal Warnings – Verbal warnings are primarily consultative. At a minimum, verbal warnings shall specify the nature of the violation and required corrective action;
 - b. Written Notices – Written notices shall include nature of the violation and the required corrective action, with deadlines for taking such action;
 - c. Escalated Enforcement Measures – Escalated enforcement responses shall be employed alone or in combination where necessary to correct persistent non-compliance, repeated or escalating violations, or incidents of major environmental harm:
 - 1) Citations with Fines – Monetary fines may include civil and administrative penalties;
 - 2) Withholding of Plan Approvals or Other Authorizations – Where a facility is in non-compliance, the Permittee’s own approval or authorization processes that affect the facility’s ability to discharge to the storm drain system may be used to abate the violation;
 - 3) Stop Work Orders – The Permittee may issue stop work orders that require construction activity to be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate best management practices; and
 - 4) Additional Measures – Other escalated measures the Permittee may employ under its local legal authorities.
3. The Permittee shall track instances of non-compliance and enforcement responses either electronically or via hard-copy files. The enforcement tracking documentation shall include, at a minimum, the following:
 - a. Name and contact information of owner/operator;
 - b. Location of facility, project, or activity requiring enforcement;
 - c. Description of violation(s) and recommended corrective actions;

- d. Required schedule for returning to compliance;
- e. Records of communication with the owner/operator regarding the violation and requirements;
- f. Description of enforcement response used, including escalated responses if repeat violations occur or violations are not resolved within the time specified in the enforcement action;
- g. Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations);
- h. Any referrals to different departments or agencies.

4. Recidivism Reduction

The Permittee shall identify chronic violators of any local ordinance or regulation related to the requirements of this Order and shall develop incentives or disincentives or increase inspection frequency at the operator's sites to prevent chronic violations.

5. NPDES Permit Referrals

For those construction projects or industrial facilities subject to the State Water Board Construction General Permit (Construction General Permit) or Industrial General Permit, the Permittee shall:

- a. Refer to [SMARTS](https://smarts.waterboards.ca.gov/smarts) for current filing status of construction projects or industrial facilities (<https://smarts.waterboards.ca.gov/smarts>)
- b. Refer non-filers (i.e., those facilities that cannot demonstrate that they obtained appropriate permit coverage) to the appropriate Regional Water Board within 30 days of the Permittee's determination that permit coverage would be appropriate. Non-filers include the following:
 - 1) Owners of regulated construction projects that have either not filed a Construction General Permit Notice of Intent or have not received a Construction General Permit erosivity waiver; and
 - 2) Owner/operators of regulated industrial facilities that have not filed either an Industrial General Permit Notice of Intent, No Exposure Certification, or Notice of Non-Applicability.
- c. Refer owner/operators with suspected ongoing violations of the Construction General Permit or Industrial General Permit known by the

Permittee to the appropriate Regional Water Board. This referral must be made within 30 days of the Permittee's determination that violations may be ongoing;

- d. Refer owner/operators with ongoing violations of the Permittee's own ordinances to the appropriate Regional Water Board provided the Permittee has made a good faith effort to achieve compliance using Escalated Enforcement Measures described in the Enforcement Response Plan; and
- e. In making the referrals described above, the Permittee shall include the following documentation:
 - 1) Name and contact information of owner/operator;
 - 2) Construction project or industrial facility location;
 - 3) Estimated construction project size or industrial activity type (including Standard Industrial Classification Code or North American Industry Classification System Code, if known);
 - 4) Records of communication with the owner/operator regarding filing requirements or ongoing violations; and
 - 5) Any enforcement tracking documentation the Permittee has regarding the site or facility.

D1.4 Guidance Document Implementation

During the course of implementing the requirements of this Order, the Permittee shall reference the guidance document submitted with their Notice Of Intent and note any changes to the guidance document (for example, changes to the responsible implementing entity or changes to any locally-tailored best management practices carried over from a stormwater management plan developed under WQO 2003-0005). If changes are made, the Permittee shall submit the updated guidance document with the Annual Report.

D2. PUBLIC EDUCATION, OUTREACH, INVOLVEMENT, AND PARTICIPATION PROGRAM

D2.1 Implementation Options

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall select one or more of the public education program implementation options, as follows:
 - a. Individually fulfill public education and public participation program requirements within their jurisdictional boundaries;
 - b. Contribute to a countywide stormwater program which conducts education and outreach on behalf of its members; or
 - c. Contribute to a regional outreach and education collaborative effort which shall include members completing the following:
 - 1) Define a uniform and consistent message(s);
 - 2) Determine the best methods to communicate the message(s); and
 - 3) Collaboratively apply what is learned through local jurisdiction groups.
2. Within 1 year of the beginning of its involvement or contribution, the Permittee shall obtain documentation, such as a written agreement, letter, or similar document, which confirms any involvement in or contribution to a countywide stormwater program or regional outreach and education collaborative effort within one year of the beginning of its involvement or contribution. Provide documentation in the annual report per section D10.

D2.2 Development and Implementation

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement a written public education strategy to attain the following goals related to stormwater pollution prevention and using stormwater as a resource:
 - a. Identify who is responsible for implementing specific tasks and create a schedule for task implementation;
 - b. Identify the Permittee's target audiences;

- c. Encourage public input (e.g., the opportunity for public comment, or public meetings) in the development of the public education program;
- d. Develop and disseminate educational materials (e.g., printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites) for targeted audiences, including multiple languages as appropriate and that address the following topics:
 - 1) Local pollutants of concern and regional water quality issues;
 - 2) Benefits of water-efficient and stormwater- friendly landscaping (e.g., [Surfrider's Ocean Friendly Gardens Program](#) and the Department of Water Resources [Water Efficient Landscape Ordinance](#)),
 - 3) Proper application of pesticides, herbicides, and fertilizers;
 - 4) Best management practices to reduce or eliminate illicit discharges from organized car washes (e.g., see the [Sacramento Stormwater Quality Partnership River Friendly Carwash Program](#)), mobile cleaning and pressure washing operations, and landscape irrigation; and
 - 5) Illicit discharge awareness and illicit discharge and spill reporting including promotion of the Permittee's illicit discharge reporting hotline per the section Illicit Discharge and Spill Response Plan.
 - 6) Pet waste management, including the following:
 - a) Permittees shall maintain a web page on the Permittee's website with information about proper pet waste management and the impact of improperly deposited waste on water quality and public health;
 - b) Annual messaging to residents, reminding them to cleanup accumulated pet waste in their yards that could otherwise get washed into streams and beaches; and
 - c) Messaging regarding pet waste management and associated impacts to the beaches and their catchments.
- e. As applicable within the Permittee's jurisdiction, provide independent, parochial, and public schools with materials to educate school-age children about the effects of pollutants in stormwater discharge, the

actions the permittee is taking to protect/enhance stormwater quality, and the actions school-age children can do to help protect receiving water quality in their local area. The Permittee is encouraged to use environmental and place-based experiential learning materials that are integrated into school curricula and school facility management. The Permittee may refer to [Sac Splash](https://www.sacsplash.org) (<https://www.sacsplash.org>), the [Effie Yeaw Nature Center](http://www.sacnaturecenter.net) (www.sacnaturecenter.net), or The [California Education and Environment Initiative's Curriculum](http://www.californiaeei.org) (<http://www.californiaeei.org>) for examples.

2. Construction and Post-Construction Education – The Permittee shall develop and implement a strategy to educate project proponents, designers, and implementors of regulated Construction and Post-Construction projects. This shall include providing training to key stakeholders, including developers, contractors, construction site operators, and owner/builders, on the Permittee's post-construction requirements and permitting process. Training shall be provided early in the planning process and as appropriate to ensure understanding and proper implementation of best management practices.
3. Conduct surveys of target audiences at least twice during the permit term to inform and improve the public education program through an iterative process.

D2.3 Community-Based Social Marketing

The Regional Board Executive Officer may determine that a Traditional Permittee is required to implement community-based social marketing. The Regional Board Executive Officer shall notify a Permittee of this determination within three months of the effective date of this Order or the Permittee's effective date of designation. The notification shall include rationale for the community-based social marketing requirement. A Permittee may dispute the determination to the State Water Board Executive Director as specified under the Dispute Resolution provision of this Order.

Permittees required to conduct Community Based Social Marketing shall at a minimum include the following actions as part of their overall public education strategy:

1. Research on barriers to desired behaviors and benefits of desired behaviors (ex. Literature review, observation, focus groups).
2. Elicit commitments to implement desired behavior from target audience.

3. Provide prompts reminding target audience of desired behavior.
4. Use the concept of social norms/modeling of desired behavior.
5. Use education messages that are specific, easy to remember, from a credible source, and appropriate for the target audience.
6. Create incentives for the desired behavior.
7. Remove barriers to the desired behavior.

D2.4 Public Participation Program

The Permittee shall involve the public in the development and implementation of its stormwater management program. At a minimum, within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall:

1. Create opportunities for the public to participate in the implementation of stormwater pollution prevention activities by sponsoring Permittee activities or supporting private activities.
2. Create opportunities for public comment and input on policy related to the Permittee's stormwater management program.
3. Develop electronic, paper, or other communication techniques to ensure the public can easily find information about the Permittee's stormwater management program and opportunities to participate.

D3. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Permittee shall implement an Illicit Discharge Detection and Elimination Program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into its storm drain system pursuant to the following requirements.

D3.1 Illicit Discharge and Spill Response Plan

Within 1 year of the effective date of this Order or the effective date of the Permittee's Designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement an Illicit Discharge and Spill Response Plan that, at a minimum, includes the following elements:

1. A publicly accessible method or methods to receive illicit discharge and spill notifications 24 hours a day (e.g., 24-hour hotline, internet complaint website). Anonymous reporting shall be accommodated by at least one reporting method. The Permittee is encouraged to accommodate electronic photo submittals;
2. An illicit discharge and spill complaint response process that provides the following:
 - a. Material characterization, source identification, containment, abatement, and recovery;
 - b. Ability to respond to a reported illicit discharge and conduct assessment and clean-up and abatement, 24-hours-a-day;
 - c. Receiving water impact assessment, including visual observation and water quality sampling, as appropriate.¹ The Permittee may reference indicator parameters and action level concentrations found in the Center for Watershed Protection's [Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf) (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);
 - d. Identification of the responsible party, as applicable;
 - e. Response timelines for illicit discharges and spills shall be based upon threats to water quality and human health as follows:
 - 1) Illicit discharges and spills known or suspected of being either sanitary sewage, hazardous, or contaminated shall be investigated as soon as possible, but no later than 24 hours of the Permittee becoming aware of the discharge.
 - 2) The Permittee shall investigate any suspected illicit discharge or spill not meeting the above criteria within 72 hours of becoming aware of the suspected illicit discharge or spill.
 - 3) For investigations that require more than 72 hours, the Permittee shall identify the actions being taken to identify and locate the source of the suspected illicit discharge.

¹ These requirements may be satisfied through collaboration with neighboring Permittees, particularly where a discharge passes through a neighboring Permittee's MS4 prior to reaching receiving waters.

- f. Roles and responsibilities of responding agencies for all times of day, including illicit discharge and spill response referral process (i.e., transfer of incident command) and notification to appropriate federal, state, and local agencies;
 - g. A description of who, how, and what is used to clean-up and verify clean-up of illicit discharges and spills, for both hazardous and non-hazardous substances, including storm drain system cleaning;
3. An Illicit Discharge and Spill Enforcement Protocol that describes:
- a. The various illicit discharge and spill levels, such as nuisance, immediate response, and emergency and hazardous material spills, and the associated response and enforcement actions for each; and
 - b. Agencies responsible for enforcement and when they take enforcement action (e.g., County Department of Environmental Health, local police and fire departments, Certified Unified Program Agency);
4. A protocol to track and query the following:
- a. Details of illicit discharge and spill complaints and complaint response, including, but not limited to, time of notification, location of illicit discharge or spill, responsible party or parties, quantity and type of material, and whether actual or potential illicit discharges and spills are abated;
 - b. Responding parties;
 - c. Response time to illicit discharges and spills;
 - d. Inspector's notes and findings;
 - e. History of prior illicit discharges and spills; and
 - f. Follow-up actions, including but not limited to, re-inspections, receipt of compliance documentation, referrals to other divisions or agencies, cost recovery, fines, and other enforcement.

D3.2 Illicit Discharge Source Areas

- 1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and then implement written

procedures to proactively identify and abate the following sources of potential or actual illicit discharges:

- a. Areas with a history of past illicit discharges;
 - b. Areas with a history of illegal dumping;
 - c. Areas with onsite sewage disposal systems;
 - d. Areas with infrastructure more likely to have illegal connections and a history of sanitary sewer overflows or cross-connections;
 - e. Other areas that are likely to have illicit discharges.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary, a map or maps which may be in hard copy, electronic, or geographic information system (GIS) form and which shall include the following:
- a. The MS4 Map developed pursuant to Order Provision D4.11;
 - b. All areas identified as Illicit Discharge Source Areas;
 - c. Location of dry weather flows identified per the section Dry Weather Flow Investigation and Sampling;
 - d. The permit boundary.
3. The maps shall be reviewed annually at minimum and updated as necessary.

D3.3 Dry Weather Flow Investigation and Sampling

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary, written procedures to proactively identify, investigate, and eliminate (per the section Illicit Discharge and Spill Response Plan) sources of dry weather flows from MS4 outfalls flowing or ponding more than 72 hours after the last rain event. Procedures shall include the following:
 - a. A process to investigate outfalls that are flowing or ponding more than 72 hours after the last rain event. The investigation shall include sampling when the Permittee cannot determine that the flow is an

authorized non-stormwater discharger or eliminate the illicit discharge(s) causing the dry weather flow. Sampling shall include the indicators parameters and actions levels in Table D3.1 Indicator Parameters and Action Level Concentrations and any other parameters of concern based on observation of the flow and other relevant information. The Permittee shall conduct a follow up investigation if action level concentrations are exceeded, and the source of the illicit discharge has not been identified and eliminated. The Permittee may reference the Center for Watershed Protection’s 2004 document titled [“Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments”](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf) for appropriate field test methods (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);

Table D3.1 Indicator Parameters and Action Level Concentrations

Indicator Parameter	Action Level Concentration
Ammonia	Greater than or equal to 50 milligrams per liter
Color	Greater than or equal to 500 color units
Conductivity	Greater than or equal to 2,000 microsiemens per centimeter
Hardness	Less than or equal to 10 milligrams per liter as CaCO ₃ or greater than or equal to 2,000 milligrams per liter as CaCO ₃
pH	Less than or equal to 5 or greater than or equal to 9
Potassium	Greater than or equal to 20 milligrams per liter
Turbidity	Greater than or equal to 1,000 Nephelometric Turbidity Units

- b. Frequency and timeline of proposed outfall investigations.
- c. Processes to abate the source of illicit dry weather discharge within time frames specified in the Illicit Discharge and Spill Response Plan;
- d. A process to coordinate with field staff with institutional knowledge of chronic dry weather flows or that may observe dry weather flows, for example, during maintenance or inspections near or at outfalls; and
- e. Documentation of dry weather investigation findings, including dates of inspection and sampling, as well as sampling results.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall implement these Dry Weather Flow Investigation and Sampling procedures.

D3.4 Potential Illicit Discharge Source/Facility Inventory

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update an inventory of all industrial/commercial facilities/sources within the Permittee's jurisdiction (regardless of ownership) that could discharge pollutants in stormwater to the MS4. The inventory shall include the following information for each source.
 - a. Facility/source name;
 - b. Owner/operator contact information;
 - c. Address or location (geographical coordinates);
 - d. Nature of business or activity;
 - e. Standard Industrial Classification (SIC) codes (when known);
 - f. Physical location (geographical coordinates) of the Permittee's storm drain inlets that would receive potential discharges;
 - g. Name of receiving water;
 - h. Date of most recent inspection;
 - i. Issues identified and corrective actions required during inspection;
 - j. Date corrective actions were implemented; and
 - k. Notation whether the facility or operation has the following related to the Industrial General Permit: Enrollment (include Waste Discharge Identification number for enrolled facilities) or Notice of Termination if applicable.
2. At a minimum, the following industrial and commercial facilities/sources shall be included in the inventory:
 - a. Vehicle salvage yards;
 - b. Metal and other recycled materials (e.g., plastic, paper, engine oil) collection;
 - c. Waste transfer;
 - d. Vehicle mechanical repair, maintenance, or cleaning;
 - e. Building trade central facilities or yards;

- f. Corporation yards;
 - g. Landscape nurseries and greenhouses;
 - h. Building material retailers and storage;
 - i. Plastic manufacturers;
 - j. Retail and wholesale fueling;
 - k. Pet boarding, grooming, supply;
 - l. Restaurants;
 - m. Grocery stores;
 - n. Strip malls;
 - o. Other commercial businesses; and
 - p. Other facilities determined by the Permittees or Regional Water Boards to have reasonable potential to contribute pollutants to stormwater runoff.
3. The Permittee shall determine if the facilities that may be required to be covered under the Industrial General Permit have done so. Upon discovering any facilities suspected of needing permit coverage but are not yet permitted, the Permittee shall notify the appropriate Regional Water Board.
 4. The Permittee shall update the inventory annually, including adding or removing facilities/sources. The update shall be accomplished through collection of new information obtained during inspections and contacts with commercial and industrial facility operators and owners, or through other readily available intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer hook-up permits, and SMARTS database).

D3.5 Potential Illicit Discharge Source/Facility Inspections

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop written procedures to inspect and prioritize for inspection, facilities/sources identified in the inventory created per the section Potential Illicit Discharge Source/Facility Inventory. The inspections may be accomplished by incorporating stormwater elements into existing inspection programs (e.g., Certified Unified Program Agency, hazardous materials, county health inspections, fats oils and grease inspections, industrial pretreatment inspections).

2. Inspections shall be performed by appropriately trained staff and include at least the following activities:
 - a. Observations for appropriate best management practices to prevent stormwater runoff pollution or illicit discharge;
 - b. Observations for evidence of unauthorized discharges, illegal connections, and potential discharge of pollutants to stormwater;
 - c. Observations for noncompliance with Permittee ordinances and other local requirements;
 - d. Verification of coverage under the Industrial General Permit, if applicable; and
 - e. Documenting inspections and findings of inspections.
3. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall begin inspections of at least 20 percent of all facilities annually.
4. The permittee shall inspect all inventoried facilities/sources at least once every five years.
5. The Permittee shall conduct follow-up inspections to verify corrective actions have been taken in accordance with the Illicit Discharge and Spill Response Plan and Enforcement Response Plan.

D3.6 Illicit Discharge Detection and Elimination Staff Training

Within 2 years of the effective date of Order or the Permittee's effective date of designation, whichever is later, the Permittee shall implement a biennial training program for all Permittee staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe a spill, illicit discharge, or illegal connection to the storm drain system. The training program shall include, at a minimum:

1. Identification of an illicit discharge or illegal connection;
2. Lessons learned from historical spills and illicit discharges;
3. Proper procedures for reporting and responding to the spill, illicit discharge or illegal connection;
4. Follow-up training as needed to address changes in regulations, procedures, techniques, or staffing;

5. A biennial assessment of trained staff's knowledge of identifying, reporting, and responding to illicit discharges and revisions to the training as needed;
6. Training for new staff no later than six months after the start of employment; and
7. Contact information, including the procedure for reporting a spill or illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.

D4. POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM

The Permittee shall develop and implement a Pollution Prevention and Good Housekeeping for Permittee Operations Program to prevent or reduce the amount of pollutant runoff from Permittee operations. The Permittee shall implement appropriate best management practices for preventing or reducing the amount of stormwater pollution generated by Permittee operations.

D4.1 Inventory of Permittee-Owned or Operated Facilities

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary an inventory of Permittee-owned or operated facilities within their jurisdiction that are a threat to water quality. The inventory shall include all Permittee-owned or operated facilities within their jurisdiction that are potential sources of pollution in stormwater, including the following:
 - a. Airports;
 - b. Animal control facilities;
 - c. Chemical storage facilities;
 - d. Composting facilities;
 - e. Equipment storage and maintenance facilities (including landscape-related operations);
 - f. Fuel farms;
 - g. Fire stations and training facilities;
 - h. Hazardous waste disposal facilities;
 - i. Hazardous waste handling and transfer facilities;
 - j. Incinerators;
 - k. Landfills;
 - l. Materials storage yards;
 - m. Pesticide storage facilities;

- n. Public parking lots;
 - o. Public golf courses;
 - p. Public swimming pools;
 - q. Public parks and recreation areas;
 - r. Public works yards;
 - s. Public marinas;
 - t. Recycling facilities;
 - u. Salt or de-icing storage facilities;
 - v. Solid waste handling and transfer facilities;
 - w. Transportation hubs (e.g., bus transfer stations);
 - x. Vehicle storage and maintenance areas;
 - y. Vehicle fueling facilities; and
 - z. Other (as directed by the appropriate Regional Water Board)
2. The inventory shall include the following for each facility:
- a. Name and type of facility;
 - b. The facility manager's name, title, and contact information;
 - c. Physical address (if applicable) and decimal latitude-longitude coordinates of facility;
 - d. Date of last assessment or inspection;
 - e. Industrial General Permit Waste Discharge Identification Number if applicable; and
 - f. Indication of facilities identified as hotspots as required in the section Identification of Pollutant Hotspots.

D4.2 Map of Permittee-Owned and/or Operated Facilities

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary, a map or maps of the Permittee-owned or operated facilities identified in the section Inventory of Permittee-Owned and Operated Facilities. The map(s) shall include the following:

1. The location of the facilities;
2. The stormwater drainage system serving the facilities, including drain inlets and outfalls;
3. The receiving waters to which these facilities discharge or identification of neighboring MS4 where a discharge passes through a neighboring MS4 prior to reaching receiving waters; and
4. Identification of hotspot facilities as required in the section Identification of Pollutant Hotspots.

D4.3 Identification of Pollutant Hotspots

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall conduct an initial inspection and assessment of all facilities in the inventory (created per the section Inventory of Permittee-Owned and Operated Facilities) that were not already subject to an initial inspection under the previous permit term. The inspections shall identify actual or potential pollutant discharge and Hotspot Facilities using the Center for Watershed Protection's guide on Urban Subwatershed and Site Reconnaissance, or equivalent. See Chapter 4 of the [Center for Watershed Protection's Unified Subwatershed and Site Reconnaissance: A User's Manual](#). Among the factors to be considered in identifying hotspot facilities are:
 - a. The type and volume of pollutants stored at the site;
 - b. The presence of improperly stored materials;
 - c. Outdoor material handling and equipment maintenance activities
 - d. Disturbed or erodible soils;
 - e. Proximity to water bodies;
 - f. Poor housekeeping practices;
 - g. History of deficient pollution prevention best management practice implementation; and
 - h. History of illicit discharges.
2. Hotspots shall include, at a minimum, the following:
 - a. The Permittee's maintenance and corporation yards;
 - b. Vehicle storage, maintenance, washing areas;
 - c. Hazardous waste facilities;
 - d. Fuel storage or dispensing locations;
 - e. Airports;
 - f. Marinas; and
 - g. Any other facilities at which chemicals or other materials are likely to be discharged in stormwater.
3. The Permittee shall document initial inspection and assessment procedures and results of site evaluation checklists used to conduct the initial inspection and assessment.

4. The Permittee shall update the inventory of Permittee-owned or operated facilities annually. Permittees shall conduct the initial inspection and assessment for any facilities added to the inventory within one year.

D4.4 Hotspot Facility Stormwater Pollution Prevention Plan

1. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, for each hotspot facility identified per the section Identification of Pollutant Hotspots, the Permittee shall develop or update as needed, and implement written site-specific Stormwater Pollution Prevention Plans that identify existing stormwater best management practices installed, implemented, and maintained or identify additional needed best management practices to minimize the discharge of pollutants to protect water quality.
2. The Stormwater Pollution Prevention Plan(s) shall be kept on-site at each of the Permittee-owned or operated facilities' offices for which it was completed and shall be updated as necessary.
3. At a minimum the Stormwater Pollution Prevention Plan will include the following:
 - a. Facility address;
 - b. Owner/operator name and contact information;
 - c. Purpose of the document;
 - d. Key staff/contacts at the facility;
 - e. Site map with drainage and discharge locations identified;
 - f. Types and location of pollutant generating materials that are handled and stored at the facility that may be exposed to stormwater;
 - g. Facility stormwater best management practices;
 - h. Spill control and cleanup procedures including spill kit location;
 - i. Spill notification procedures (e.g., fire department, Certified Unified Program Agencies);
 - j. Dates of scheduled quarterly and annual inspections per the section Hotspot Facility Inspections, Visual Monitoring and Remedial Action; and
 - k. Inspection procedures and checklist for inspections conducted to ensure proper selection, implementation, and maintenance of all best management practices.

4. The Stormwater Pollution Prevention Plan requirements may be satisfied by existing documents such as the Hazardous Materials Business Plan, Spill Prevention Control and Countermeasures Plan, Industrial General Permit Stormwater Pollution Prevention Plan, or other equivalent document if all minimum requirements are included.

D4.5 Hotspot Facility Inspections, Visual Monitoring and Remedial Action

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall implement an inspection program of Permittee-owned or operated hotspot facilities per the requirements of this section. Renewal Permittees shall continue their existing hotspot facility inspection programs and review and make any necessary updates for compliance with this section within 3 years of the effective date of this Order. The inspections performed as a part of Stormwater Pollution Prevention Plan implementation for facilities covered under the Industrial General Permit can be counted towards the facility inspection requirements in this section.

1. Inspection Frequency - The Permittee shall conduct quarterly best management practice implementation inspections and an annual Comprehensive Inspection.
2. Hotspot Facility Quarterly best management practice Implementation Inspections - The Permittee shall conduct quarterly best management practice Implementation Inspections that include the following elements at minimum:
 - a. Observation of facility discharge locations for stormwater and non-stormwater discharges. Where discharges are observed, identify any observed problems (e.g., color, foam, sheen, turbidity) associated with pollutant sources or best management practices;
 - b. An inspection of all areas of pollutant generating activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;
 - c. Inspection of best management practices to identify implementation deficiencies and determine the need for maintenance or follow-up; and
 - d. Identification of any deficiencies and a schedule of follow-up actions that will be completed to correct deficiencies as soon as practicable.

3. Hotspot Facility Annual Comprehensive Inspections - Once per year concurrent with one of the quarterly inspections, the Permittee shall conduct a review of the Stormwater Pollution Prevention Plan and effectiveness of all best management practices and their implementation to ensure pollutants are not being discharged.
4. The Permittee shall document all inspection dates, inspection results, and corrective actions. Facilities shall maintain a log of inspection reports with their procedures.

D4.6 Permittee Operations and Maintenance Activities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall assess its operation and maintenance activities for potential to discharge pollutants in stormwater. Assessments shall be conducted pursuant to the following requirements:

1. The Permittee shall conduct an assessment to identify operation and maintenance activities that have a potential to discharge pollutants in stormwater including but not limited to the following:
 - a. Road and parking lot maintenance, including sidewalk repair, curb and gutter repair, pothole repair, pavement marking, sealing, and re-paving;
 - b. Bridge maintenance, including re-chipping, grinding, saw cutting, and painting;
 - c. Cold weather operations, including plowing, sanding, and application of deicing compounds and maintenance of snow disposal areas;
 - d. Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation;
 - e. Material stockpiling (e.g., asphalt and concrete grindings, construction debris, soil);
 - f. Permittee-sponsored or sanctioned events such as large outdoor festivals, parades, or street fairs;
 - g. Green waste deposited in the street;
 - h. Graffiti removal; and
 - i. Hydrant flushing.
2. The Permittee shall identify all materials that could be discharged from each of these operation and maintenance activities, and the pollutant characteristics of the materials. Typical pollutants associated with these

activities include metals, chlorides, hydrocarbons (e.g., benzene, toluene, ethylbenzene, and xylene), sediment, green waste, herbicide, pesticide, dried paint, and trash.

3. The Permittee shall develop, implement, and document best management practices that, when applied during Permittee operation and maintenance activities, will reduce or eliminate pollutants in stormwater and non-stormwater discharges. The Permittee shall refer to the California Stormwater Quality Association Municipal Handbook or equivalent when developing the best management practices.
4. The Permittee shall annually evaluate all best management practices implemented during operation and maintenance activities for effectiveness and revise as necessary.
5. The Permittee shall maintain a procedure to dewater and dispose of materials extracted from storm drain system. This procedure shall ensure that water removed during the cleaning process and waste material will not reenter the MS4.

D4.7 Water Quality and Habitat Enhancement in Flood Management Facilities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a process or review, update, and implement existing processes as necessary to incorporate water quality and habitat enhancement features in the design of all new and rehabilitated flood management projects that discharge to the storm drain system.

D4.8 Landscape Design and Maintenance

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a landscape design and maintenance program or review, update, and implement existing programs to reduce the amount of water, pesticides, herbicides, and fertilizers applied during Permittee operations and activities. The program shall address the following requirements:

1. The Permittee shall evaluate pesticides, herbicides, and fertilizers used and application activities performed and identify pollution prevention and source control opportunities.

2. The Permittee shall implement landscape management measures that rely on non-chemical solutions that reduce the discharge of pesticides, herbicides, and fertilizers including the following:
 - a. Create drought-resistant soils by amending soils with compost;
 - b. Create soil microbial community through the use of compost, compost tea, or inoculation;
 - c. Use native or climate appropriate plants to reduce the amount of water, pesticides, herbicides, and fertilizers used;
 - d. Practice grasscycling on decorative turf landscapes to reduce water use and the need for fertilizers;
 - e. Keep grass clippings and leaves away from waterways and out of the street using mulching or composting;
 - f. Prevent application of pesticides, herbicides, and fertilizers during irrigation or within 48 hours of predicted rainfall with greater than 50 percent probability as predicted by National Oceanic and Atmospheric Administration;
 - g. Limit or replace herbicide and pesticide use (e.g., conducting manual weed and insect removal); and
 - h. Reduce grass mowing to allow for greater pollutant removal and infiltration without jeopardizing public safety.
3. The Permittee shall implement educational activities for municipal applicators and their contractors as part of the section Pollution Prevention and Good Housekeeping Staff Training.
4. The Permittee shall collect and properly dispose of unused pesticides, herbicides, and fertilizers.
5. The Permittee shall minimize irrigation run-off by using an evapotranspiration-based irrigation schedule and rain sensors.
6. The Permittee shall maintain an inventory of each pesticide, herbicide and fertilizer used during Permittee operations and activities in the permit area. The inventory shall include the following:
 - a. Name and type of each pesticide, herbicide, and fertilizer; and

- b. Approximate annual usage (e.g., gallons per year, cubic feet per year) of each pesticide, herbicide, and fertilizer.

D4.9 Stormwater Asset Management Inventory

The Permittee shall conduct stormwater asset management activities and establish intended levels of service for their MS4 consistent with this Order.

1. Asset Inventory Timeline

- a. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop an Asset Inventory to include outfalls, at a minimum. Renewal Permittees may review and update an existing outfall inventory to include the Asset Categories.
- b. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall populate the Asset Inventory to include Asset Characteristics for all assets.

2. Asset Categories

The Permittee shall include in the Asset Inventory all hard assets critical to the MS4, including, but not limited to the following categories:

- a. Storm Drain System Assets - including the following storm drain system assets:
 - 1) Outfalls– Outfalls (or outlets) to receiving waters, the Permittee's own or any neighboring MS4s, or to structural controls/best management practices;
 - 2) Stormwater Conveyance System – All segments of the MS4 including pipes, ditches, channels. The Permittee may use a logical grouping system where feasible and estimates where necessary. The characteristics of conveyance features may be populated using information gained during routine field inspections.
 - 3) Inlets – Inlets to the MS4 (e.g., drop inlets, storm drain inlets, catch basins, curb face openings). The Permittee shall specify presence of internal storage (e.g., sump) and water quality device (e.g., screen, filter, separator, trash Full Capture Systems);
 - 4) Roads – All roadways that convey stormwater, including curb and gutter systems. The Permittee may rely on other roadway repair, maintenance tracking, and plans to complete the roads inventory, so long as the Permittee ensures the other tools and documents

account for stormwater quality when informing and prioritizing roadway improvements.

- b. Structural Controls/Best Management Practices
 - 1) The Permittee may rely on its Post-Construction Inventory to assist populating the asset inventory;
 - 2) Water quality-based centralized and decentralized best management practices – Stormwater control measures that contribute to reductions of stormwater volume and pollutant loading; and
 - 3) Non-water quality-based centralized and decentralized best management practices – Stormwater control measures that have the primary function of flood control and provides minimal reduction of stormwater volume or pollutant loading.
- c. Equipment – All equipment and systems, individually valued over \$5,000 in replacement costs, used to convey stormwater, and maintain and improve the MS4.

3. Asset Characteristics

The Asset Inventory shall include the following information for each asset (if applicable):

- a. Asset description, class, and/or category;
- b. Purchase, installation, and/or establishment date;
- c. Useful lifetime when new;
- d. Type or material;
- e. Size and capacity.

D4.10 Stormwater Asset Management Level of Service

- 1. Condition and Effectiveness Assessments – permittee shall conduct the following condition and effectiveness assessments:
 - a. Condition Assessments –The Permittee shall assess the condition of each asset. For cost-efficiency, a risk-based assessment may be used to conduct the asset condition assessment.
 - b. Effectiveness Assessments – Permittee shall assess each asset's effectiveness at complying with this order based on factors such as design, capacity, quality, and intended function.
 - c. Schedule of Condition and Effectiveness Assessments

- 1) When assessing the Storm Drain System Assets, the Permittee may propose a less precise and simplified approach, potentially by grouping assets. The Permittee shall submit as part of the Asset Maintenance and Improvement Planning an approach to conduct assessments of public storm drain infrastructure. The approach may be based on current permittee scheduling of inspections and maintenance, or impromptu visits to assets allowing staff to gather desired information to populate the asset management database.
 - 2) Structural controls/best management practices – Within 3 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall assess conditions of all public structural controls.
 - 3) Private structural controls/best management practices - Within 5 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall assess all private structural controls/best management practices.
2. Valuation – By the end of Year 5, and thereafter as storm drain system components are inventoried, for each inventoried asset, identify the following (if applicable):
- a. Principal cost (if applicable); and
 - b. Lifecycle Costs – (1) Annual operations and maintenance costs and other ongoing expenses (2) Replacement costs.

D4.11 MS4 Map

Within 2 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall maintain an MS4 Map (updated as changes occur, at a minimum annually) to include individual identifiers and descriptions, which include information such as name, type, and discharge information, where applicable, for the system components, as follows:

1. Hard Assets – Refer to the subsection Asset Characteristics under the section Stormwater Asset Management Inventory. The map shall identify which portions of the system are open channels (e.g., ditches, manmade channels) and other conveyance features (e.g., culverts, pipes, curb-and-gutter). Type of structural controls/best management practices shall be identified. The map shall also identify flow direction.
2. Ephemeral, intermittent, and perennial waterbodies including, but not limited to, the following:

- a. National Hydrography Dataset Flow Line (U.S. EPA and United States Geological Survey), linear features of types: stream/river, canal/ditch, pipeline, artificial path, coastline, and connector;
 - b. National Hydrography Dataset Water Body (U.S. EPA and United States Geological Survey), polygonal features of types: playa, ice mass, lake, pond, reservoir, swamp, marsh, and estuary;
 - c. [National Wetlands Inventory](http://www.fws.gov/wetlands/) (a national program established by the United States Fish and Wildlife Service to map wetlands, available at <http://www.fws.gov/wetlands/>); and
 - d. Relevant environmental documents (e.g., developed per California Environmental Quality Act, National Environmental Policy Act) that include waterbody delineations reflecting current conditions.
3. Drainage Catchments– Delineated drainage areas defined by both natural topographic divides and anthropogenic features such as constructed portions of the MS4, that reasonably represent areas that convey stormwater runoff to outlets/outfalls or to other drainage areas; and
4. Other Components – Identify other critical components (e.g., cleanouts, pump stations, diversion structures, trash capture devices, infiltration galleries) of system influencing maintenance capacity and conveyance.

D4.12 Asset Maintenance and Improvement Planning

1. Routine Asset Maintenance Plan - Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a Routine Asset Maintenance Plan to ensure all assets are properly functioning and do not present risks to water quality. At a minimum, the plan shall include the following:
 - a. Assigned frequency of inspection and maintenance of assets within the inventory based on a prioritization process that assigns highest priority assets more frequent inspections. Lowest priority assets may not require inspection and maintenance. Priority shall be based on potential threat to water quality, operating capacity (e.g., accumulation of sediment, trash, and other pollutants, or condition assessment). Areas/assets with high potential threat to water quality or high pollutant loading rates relative to treatment capacity are required to be assigned high priority.
 - b. At a minimum, inspection and maintenance of all catch basins and Permittee owned structural controls/best management practices are required to be completed annually prior to the rainy season.

- c. Devices installed pursuant to Attachment H - Trash Implementation Requirements shall be maintained to remain in compliance with those provisions. Permittee shall document inspections and maintenance conducted per the Routine Asset Maintenance Plan. Documentation of inspection and maintenance may be stored within databases required by other provisions (e.g., post-construction provisions, trash provisions) or required inspections and maintenance of those provisions may be documented within the asset management database, if applicable.
2. Long-term Asset Operation and Improvement Plan – Within 5 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall develop, and implement a Long-term Asset Operation and Improvement Plan. The Plan shall be developed using data obtained through condition assessments performed per the section Stormwater Asset Management Level of Service and shall be updated annually thereafter as additional storm drain system components are inventoried, additional assessments are made, and the Plan is implemented. The Long-term Asset Operation and Improvement Plan shall include the following:
 - a. List of known infrastructure repairs or improvements needed (e.g., deteriorated infrastructure, routinely flooded areas).
 - b. Deferred maintenance needs (e.g., structural controls with deferred maintenance).
 - c. Prioritization and Schedule – Develop a schedule, informed by a prioritization process, based on risk of failure and useful life of the asset outlining the following:
 - 1) Maintenance of inventoried assets;
 - 2) Rehabilitation and replacement of inventoried assets; and
 - 3) Installation, generation, and initiation of new assets.
 - d. Forecasted costs – Projected costs necessary to implement the Long-term Asset Operation and Improvement Plan to meet the required level of service, for the next 20 years.
 - e. 20-year Financial Strategy – Compare forecasted costs with available funding sources and identify the financial strategy for sustained funding of asset management and development to sustain service and performance.

3. Labeling Storm Drain Inlets

- a. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall ensure each storm drain inlet in high foot traffic areas includes a legible stormwater awareness message (e.g., a label, stencil, marker, or pre-cast message such as "drains to the creek" or "only rain in the drain").
- b. After storm drain inlets have been labeled, inlets with illegible or missing labels shall be recorded and relabeled within one month of inspection.

D4.13 Alternative and Existing Asset Management Programs

A Permittee may propose, for Regional Water Board Executive Officer approval, an alternative or existing approach for stormwater asset management and planning, provided the Permittee demonstrates the approach includes elements equivalent to the requirements in this Order.

D4.14 Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train all staff involved in implementing pollution prevention and good housekeeping practices in this section. The training shall occur at least once every two years and include at a minimum:

1. A general stormwater education component;
2. Training on the applicable permit requirements including clear guidance on appropriate stormwater best management practices to use at municipal facilities and during typical operation and maintenance activities;
3. Follow-up training as needed to address changes in procedures, techniques, or staffing;
4. A biennial assessment of trained staff's knowledge of pollution prevention and good housekeeping and revisions to the training as needed; and
5. Training for new staff who will be involved in implementing pollution prevention and good housekeeping practices no later than three months after the start of employment.

D4.15 Third Party Activities

The Permittee shall require that any contractors hired by the Permittee to perform operation and maintenance activities shall be contractually required to

comply with all the stormwater best management practices, good housekeeping practices, and standard operating procedures described above. The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate best management practices, good housekeeping practices and following standard operating procedures.

D4.16 Pet Waste Pollution Prevention and Control

The Permittee shall implement pet waste pollution prevention and control measures to prevent pathogen discharges to receiving waters.

1. Permittees without significant outdoor pet populations or pet waste management issues may make a statement to that effect. Part 2 of this section is not required for those permittees.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall identify and create a pet waste hotspot inventory. The inventory shall include locations owned and operated by the Permittee with high potential for dog or other pet waste accumulation.
 - a. The pet waste hotspot inventory shall include the following information for each site:
 - 1) Site name (park name, trail name, or other geographic identifier);
 - 2) Description of BMPs currently employed at the site (signage, waste bag dispensers, trash bins, etc.) and the maintenance schedule for those BMPs;
 - 3) Identification of sites with improper pet waste disposal determined by at least one site visit by Permittee staff. The site visit may be conducted as part of other routine maintenance or inspections;
 - 4) Date and findings of minimum single site visit;
 - 5) Description of any proposed BMPs or increased maintenance necessary to prevent improper disposal of pet waste at the site.
 - b. Locations to be documented in the pet waste hotspot inventory include but are not limited to the following:
 - 1) Dog parks;

- 2) Recreational areas where dogs are allowed such as trails.
- c. The inventory shall be reviewed annually at a minimum.

D5. CONSTRUCTION SITE STORMWATER RUNOFF PROGRAM

The Permittee shall develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters which includes the following elements:

D5.1 Construction Site Stormwater Runoff Control Ordinance

1. Applicability - Regulated Construction Projects are defined as follows:
 - a. All land disturbances required to be enrolled in the Construction General Permit;
 - b. All land disturbances less than one acre;
 - c. All land disturbances over one acre that have received an erosivity waiver; and
 - d. Other construction projects and activities the Permittee or Regional Water Board may elect to include as Regulated Construction Projects, due to proximity to receiving waters, threat to water quality, or other factors.
2. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall develop and adopt, and Renewal Permittees shall review, and as necessary revise and adopt, an enforceable construction site stormwater runoff control ordinance that applies to all Regulated Construction Projects. The ordinance shall require the following pollution prevention measures, at a minimum:
 - a. Erosion controls;
 - b. Sediment controls;
 - c. Soil stabilization;
 - d. Dewatering pollution controls;
 - e. Source controls;
 - f. Run-on and runoff control,
 - g. Seasonal grading restrictions,

- h. Protection of existing riparian and wetland vegetation and habitat,
- i. Prevention of non-stormwater discharges,
- j. Final site stabilization,
- k. Prevention of pollutant discharges into post-construction stormwater control measures during all stages of construction (e.g., bioretention basins, infiltration chambers), and
- l. Other pollution prevention measures as appropriate.

D5.2 Construction Site Inventory and Tracking

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary a construction site inventory. The Permittee shall maintain the inventory to track the following elements for each Regulated Construction Project having received a grading or building permit or similar discretionary approval. For Regulated Construction Projects subject to the Construction General Permit the Permittee may obtain the inventory information from the SMARTS database. The inventory shall include the following:
 - a. Relevant contact information for each project including name, address, phone, email, for the landowner and primary contractor/developer;
 - b. Project location (address (if applicable) and geographic coordinates);
 - c. Area of land disturbance;
 - d. Area of pre- and post-project impervious surfaces;
 - e. Project receiving waters;
 - f. Identification of downstream waterbodies that are impaired by sediment-related pollutants or 303(d)-listed for sediment or turbidity;
 - g. Current construction activities, listing all activities that applies (e.g., construction not initiated, staging, clearing and grubbing, mass grading, utilities, streets, vertical, exterior finishing, interior finishing);
 - h. Construction General Permit Risk Level;
 - i. Site priority based on the subsection Prioritization under Construction Site Inspection and Enforcement;
 - j. Required inspection frequency;
 - k. Date of last completed inspection;
 - l. Date of approval for construction (e.g., grading or building permit);

- m. Unresolved follow-up enforcement actions (e.g., verbal warnings, written notices, and escalated enforcement measures per the Enforcement Response Plan and Enforcement Tracking section) and date of violation;
- n. The project start and anticipated completion dates; and
- o. The date the Permittee approved the site-specific construction stormwater pollution control plan in accordance with this Provision.

D5.3 Construction Plan Review and Approval Procedures

The Permittee shall:

1. Require that a site-specific construction stormwater pollution control plan be submitted for all Regulated Construction Projects.
2. Review and provide written approval of all construction stormwater pollution control plans prior to Permittee approval of construction for Regulated Construction Projects or issuing a grading or building permit. The construction stormwater pollution control plan shall include at a minimum:
 - a. All measures necessary to be consistent with the Permittees construction site stormwater pollution prevention ordinance(s).
 - b. Site-specific best management practice information, including supporting design calculations as appropriate, to ensure best management practices are properly sized, located, and effective.
 - c. The Permittee shall ensure the Applicant uses appropriate site-specific construction site best management practices based on the CASQA Construction/New Development and Redevelopment Handbook or equivalent or other best management practices approved by the Permittee. The practices shall include the following:
 - 1) Erosion Control best management practices;
 - 2) Sediment Control best management practices;
 - 3) Tracking Control best management practices;
 - 4) Run-on and Run-off Control best management practices;
 - 5) Non-Stormwater Management best management practices;
 - d. A list of state and federal permits that impose conditions on the land-disturbing elements of the Regulated Construction Project, including, but

not limited to, the Construction General Permit, 401 Water Quality Certification, U.S. Army Corps 404 permit, and California Department of Fish and Wildlife 1600 Agreement.

3. Conduct and document a review of each site-specific construction stormwater pollution control plan using a checklist or similar process.
4. Develop and implement a procedure to ensure all dewatering activities to the MS4 are authorized by the Regional or State Board prior to start of dewatering.
5. Review and approve revisions to previously approved construction stormwater pollution control plans and shall ensure they are consistent with the Permittee's construction stormwater ordinance.
6. The Permittee shall include as a condition of the grading permit that the operator submit evidence to the Permittee that all permits directly associated with the grading activity (including all state and federal permits listed above) have been obtained prior to commencing the soil disturbing activities authorized by the grading permit.
7. The Stormwater Pollution Prevention Plan developed pursuant to the Construction General Permit may satisfy the requirements for the site-specific construction stormwater pollution control plan for projects where a Stormwater Pollution Prevention Plan is developed. The Permittee is responsible for reviewing applicable portions of the Stormwater Pollution Prevention Plan for compliance with the Permittee's construction site stormwater runoff control ordinance and this Order.

D5.4 Construction Site Inspection and Enforcement

1. Construction Inspection Procedures
Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall develop and implement procedures for inspecting construction sites, and Renewal Permittees shall review, and as necessary revise, procedures for inspection of construction sites. The procedures must rely on adequate legal authority to inspect public and private construction projects to verify compliance with the Permittee's construction site stormwater control ordinance and other applicable ordinances and conduct enforcement if necessary.

2. Prioritization

The Permittee shall develop and implement a procedure to identify priority Regulated Construction Projects for inspection.

- a. Regulated Construction Projects with Construction General Permit risk level two or three shall be considered priority Regulated Construction Projects.
- b. The following criteria based on threats to water quality shall be evaluated and documented (e.g., site evaluation checklists used to conduct the prioritization) when identifying priority Regulated Construction Projects:
 - 1) Soil erosion potential—sites with easily erodible soils present a greater water quality risk;
 - 2) Area and volume of disturbed soil—sites with large areas or piles of disturbed soil present a greater water quality risk;
 - 3) Site slopes—erosion potential increases with increasing slope;
 - 4) Proximity to receiving waterbodies—sites adjacent to or that discharge directly to creeks, lakes, wetlands, and other water bodies present a greater water quality risk;
 - 5) Sensitivity of receiving water bodies—sensitive water bodies include those designated as impaired under section 303(d) of the Clean Water Act and water bodies providing habitat for state or federally-listed aquatic species;
 - 6) Non-stormwater discharges (e.g., groundwater)—sites that require removal or draining of groundwater or other non-stormwater products may require prior Regional Water Board permitting and dewatering best management practices;
 - 7) History of non-compliance from the site operator—Site operators with a history of stormwater violations may necessitate a greater level of Permittee oversight;
 - 8) Active construction during the rainy season; and
 - 9) Projects exceeding one acre that have obtained a Construction General Permit erosivity waiver.
- c. Other Regulated Construction Projects the Permittee or Regional Water Board staff determine as significant threats to water quality shall be designated as priority sites.

3. Construction Site Inspection

The Permittee shall inspect all Regulated Construction Projects and enforce the Permittee's stormwater pollution prevention ordinance(s). The inspection procedures shall be consistent with the Construction Program Requirements of this Order.

a. Inspections shall verify at a minimum:

- 1) Proper installation of best management practices consistent with Permittee approved construction site stormwater pollution control plan;
- 2) Adequate best management practice maintenance;
- 3) Best management practice effectiveness; and
- 4) Pollutants of concern are not discharging or have potential to discharge from the Regulated Construction Project.

b. The Permittee shall conduct annual inspections of all non-priority Regulated Construction Projects and verify they are prepared for rain events.

c. At a minimum, the Permittee shall inspect priority Regulated Construction Projects at the following intervals:

- 1) At least once prior to the first forecast rain event with greater than 50 percent probability as predicted by National Oceanic and Atmospheric Administration with potential to produce runoff after July 1 of each year;
- 2) At least once during the rainy season from October 1 through April 30.

d. The Permittee may temporarily reduce inspection frequency for inactive Regulated Construction Projects that the Permittee has verified are stabilized and do not present a threat to water quality.

e. At the conclusion of a Regulated Construction Project, the Permittee shall inspect to ensure that all disturbed areas have been stabilized and that all temporary erosion and sediment control measures have been removed.

f. The Permittee may leverage existing inspections (other MS4 e.g., building, grading, code enforcement inspections) and personnel to

conduct Regulated Construction Project inspections and enforcement as long as they include assessments specific to stormwater issues.

4. Alternative Construction Site Oversight
A Permittee may propose, for Regional Water Board Executive Officer approval, an alternative approach for construction site oversight, provided the Permittee demonstrates the approach will be equally effective at reducing the discharge of pollutants from construction sites to the maximum extent practicable.

D5.5 Permittee Construction Staff Training

1. The Permittee shall ensure that all Permittee and Third-Party Plan Reviewers, Permitting, Stormwater Inspectors, and Code Enforcement staff, implementing the construction site stormwater runoff control program are adequately trained, either in-house or through contracted consultants, to:
 - a. Perform technical review of local site-specific construction stormwater pollution control plan;
 - b. Evaluate and identify proper control measure selection, installation, implementation, and maintenance;
 - c. Implement administrative requirements such as inspection reporting/tracking' and
 - d. Implement the Permittee's Enforcement Response Plan.
2. All staff conducting Regulated Construction Project inspections shall be trained to identify pollutants of concern and verify they are not discharging or have potential to discharge from the Regulated Construction Project.
3. The Permittee shall maintain at least one designated staff member certified pursuant to a State Water Board sponsored program for the following roles:
 - a. A Qualified Stormwater Pollution Prevention Plan Developer (QSD) to supervise plan review; and
 - b. A Qualified Stormwater Pollution Prevention Plan Practitioner (QSP) to supervise inspection operations.

D5.6 Construction Site Operator Outreach and Education

The Permittee shall develop and distribute educational materials to construction site operators, project applicants, and anyone who will be disturbing land within the MS4's jurisdiction. Renewal Permittees shall continue their existing construction outreach programs and New Permittees shall begin their construction outreach programs within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later. The construction outreach program shall include the following:

1. Develop or utilize existing outreach materials (i.e., brochures, posters, etc.) that provide education on appropriate selection, installation, implementation, and maintenance of stormwater best management practices, as well as overall compliance with the Permittees construction site stormwater runoff control ordinance.
2. Distribute appropriate outreach materials through Permittee permitting and inspection processes. The Permittee's contact information and website shall be included in these materials.
3. Update the existing stormwater website, as necessary, to include information on appropriate selection, installation, implementation, and maintenance of stormwater best management practices.

D6 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

D6.1 New and Existing Permittee Program Requirements

1. Within 1 year of the effective date of this Order, Renewal Permittees shall review previously adopted or referenced performance criteria for Post-Construction controls, such as biotreatment and media filters to ensure they are still applicable or adopt or reference new criteria.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall adopt or reference appropriate performance criteria for Post-Construction stormwater controls, such as biotreatment and media filters.

D6.2 Effective Date for Applicability

1. The Permittee shall comply with the post-construction requirements of this Order for all public and private projects under the Permittee's jurisdiction that meet any of the approval milestones, as follows.

- a. Projects that have not yet received project-specific discretionary approval.
- b. Projects that have received discretionary approval but that have been subsequently modified to include additional impervious area through a process such as a tentative map extension.
- c. Projects that do not require discretionary approval and that have not received ministerial approval.
- d. Public projects that require no ministerial or discretionary approval and have not filed a California Environmental Quality Act Notice of Determination or Notice of Exemption.

2. Effective Date of Post-Construction Stormwater Management Plan Requirements

a. New Permittees

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall require the Post Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.

b. Renewal Permittees

Within six months of the effective date of this Order, Renewal Permittees shall require the Post Construction Stormwater Management Program on applicable Regulated Projects and Small Projects.

D6.3 Enforceable Mechanisms

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and/or modify enforceable mechanisms that will effectively implement the requirements in the Post-Construction Stormwater Management Plan Requirements section and may include municipal codes, regulations, standards, and specifications. The Permittee shall:

1. Conduct an analysis of all applicable codes, regulations, standards, and/or specifications to identify modifications and/or additions necessary to fill gaps and remove impediments to effective implementation of project-scale development requirements.

2. Approve new and/or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement the requirements in Post-Construction Stormwater Management Plan Requirements if necessary.
3. Apply new and/or modified enforceable mechanisms to all applicable new and redevelopment projects.
4. Develop and make available specific guidance for Permittee's plan review process and low impact development, Permanent Stormwater Control Measures, and best management practice design.

D6.4 Small Projects

1. Small Projects include all projects that create and/or replace (including projects with no net increase in impervious footprint) 2,500 square feet or more but less than 5,000 square feet of impervious surface and are not part of a larger plan of development.
2. Small projects do not include linear utility projects and road projects.
3. The Permittee shall require Small Projects to maximize opportunities to implement runoff reduction measures but require implementation of no less than one runoff reduction measure listed in the section Low Impact Development Design Standards and the subsection Runoff Reduction Measures.

D6.5 Regulated Projects

1. Regulated Projects are those projects that fit into the Regulated Project Categories, listed below.
2. Regulated Projects include projects on public or private land that fall under the jurisdictional authority, planning authority, or building authority of the Permittee.
3. The Permittees shall require Regulated Projects to implement low impact development design standards per the Low Impact Development Design Standards section.
4. The Permittee shall develop and implement an equivalent process for reviewing and implementing these requirements for both public and private development projects.

D6.6 Regulated Project Categories

1. New Development Projects

- a. New development is any land-disturbing activity that results in the creation or addition of exterior impervious surface area on a site on which no past development has occurred.
- b. Regulated Projects include new private and public development projects that create 5,000 square feet or more of impervious surface (collectively over the entire project site). Public infrastructure improvements associated with private development projects shall be considered part of the overall private development project.

2. Redevelopment Projects

- a. Redevelopment is any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred.
- b. Regulated Projects include private and public redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site).
- c. Specific exclusions to this category are:
 - 1) Interior remodels; and
 - 2) Routine maintenance or repair such as:
 - a) Roof or exterior wall surface replacement; and
 - b) Pavement resurfacing within the existing footprint that does not expose the underlying soil or pervious subgrade.
 - c) Full depth reclamation that does not change the pre-project drainage patterns and is not associated with non-excluded new or redevelopment projects.
- d. Partial Site Redevelopment
 - 1) Where a redevelopment project results in an increase of 50 percent or more of the impervious surface of a previously existing development, the entire project, consisting of all existing, new, and/or replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures) and shall be designed and sized to treat stormwater runoff from the entire redevelopment project).

- 2) Where a redevelopment project results in an increase of less than 50 percent of the impervious surface of a previously existing development, only the new and/or replaced impervious surface of the project shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the new and/or replaced impervious surface of the project).

3. Road and Linear Utility Projects

Regulated Projects include any of the following types of road projects and linear utility projects that create and/or replace 5,000 square feet or more of impervious surface and that fall under the jurisdictional authority, planning authority, or building authority of a Permittee:

- a. New development and redevelopment of streets or roads.
 - 1) Where the addition of new impervious surface results in an alteration of 50 percent or more of the impervious surface of an existing street or road, the entire project, consisting of all existing, new, and replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the entire street or road that had additional traffic lanes added).
 - 2) Where the addition of new impervious surface results in an alteration of less than 50 percent of the impervious surface of an existing street or road, only the new and/or replaced impervious surface of the project shall be included in the stormwater control design (i.e., Stormwater Control Measures shall be designed and sized to treat stormwater runoff from only the new traffic lanes).
- b. Linear utility projects that create and/or replace more than 5,000 square feet of contiguous impervious surface.
- c. The following road and linear utility projects are excluded from the above requirements and are not considered new development or redevelopment projects unless they are associated with non-excluded new or redevelopment projects:
 - 1) Trenching, excavation, and resurfacing associated with linear utility projects;
 - 2) Full-depth reclamation that does not change pre-project drainage patterns;

- d. The following road and linear utility projects are excluded from the above requirements and are not considered new or redevelopment projects:
 - 1) Pavement grinding and resurfacing of existing roadways and parking lots that does not expose the underlying soil or pervious subgrade; and
 - 2) Routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway.

D6.7 Source Control Measures

Regulated Projects with pollutant-generating activities and sources shall be required to implement standard permanent and/or operation source control measures as applicable.

Measures for the following pollutant generating activities and sources shall be designed consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment or equivalent manual:

1. Accidental spills or leaks
2. Interior floor drains
3. Parking/storage areas and maintenance
4. Indoor and structural pest control
5. Landscape/outdoor pesticide use
6. Pools, spas, ponds, decorative fountains, and other water features
7. Restaurants, grocery stores, and other food service operations
8. Refuse areas
9. Industrial processes
10. Outdoor storage of equipment or materials
11. Vehicle and equipment cleaning
12. Vehicle and equipment repair and maintenance
13. Fuel dispensing areas
14. Loading docks
15. Fire sprinkler test water
16. Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources
17. Unauthorized non-storm water discharges

18. Building and grounds maintenance

D6.8 Low Impact Development Design Standards

The Permittee shall adopt and implement requirements and standards to ensure design and construction of Regulated Projects that achieve low impact development design standards to reduce runoff, treat stormwater, and provide baseline hydromodification management to meet the requirements per the section Criteria for Stormwater Treatment, Retention and Peak Flow Control, below. The Permittee shall only approve projects that meet the following criteria:

D6.8.1 Site Assessment Methods

At the earliest planning stages, the Permittee shall require Regulated Projects to assess and evaluate how site conditions, such as soils, vegetation, and flow paths will influence the placement of buildings and paved surfaces. The evaluation will be used to meet the goals of capturing and treating runoff and assuring these goals are incorporated into the project design. The Permittee may adopt or reference an existing low impact development site assessment methodology.

The Permittee shall require Regulated Projects to consider optimizing the site layout through the following methods:

1. Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.
2. Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.
3. Limit overall impervious coverage of the site.
4. Employ development setbacks from creeks, wetlands, and riparian habitats.
5. Preserve as many healthy, vigorous, and mature trees as feasible.
6. Conform the site layout along natural landforms.
7. Avoid excessive grading and disturbance of vegetation and soils.
8. Replicate the site's natural drainage patterns.

D6.8.2 Drainage Management Areas

A Drainage Management Area is a watershed area draining to a single discharge location or Permanent Stormwater Control Measure. The Permittee shall require each Regulated Project to provide a map or diagram delineating

the pre- and post-development discrete Drainage Management Areas within the developed portions of the project site and demonstrate how stormwater from each Drainage Management Area will be managed to meet the Low Impact Development Design standards.

Permanent Stormwater Control Measures shall be sized to manage the runoff from the entire Drainage Management Area, including all new, replaced, and existing areas draining to the Permanent Stormwater Control Measure.

D6.8.3 Permanent Stormwater Control Measure Selection and Sizing

1. Target Pollutants of Concern

Permanent Stormwater Control Measures shall be selected and designed to treat the following pollutants of concern: dissolved and particulate metals, pathogens, nutrients, sediment, hydrocarbons, trash, and fine sediment. This requirement may be met by directing flow and debris into a Permanent Stormwater Control Measure or multiple Permanent Stormwater Control Measures that control these pollutants. Other site-specific, TMDL, and 303(d)-listed pollutants shall also be identified and treated to the maximum extent practicable.

2. Permanent Stormwater Control Measure Prioritization

All projects subject to low impact development requirements shall identify and maximize implementation opportunities for each of the following Low Impact Development measures, in the following order of priority:

- a. Site Assessment Methods
- b. Runoff Reduction Measures
- c. Bioretention Stormwater Control Measures
- d. Flow-Through, Vegetation-Based Stormwater Control Measures
- e. Subsurface Infiltration

3. Flow-Through, Non-Vegetated Stormwater Control Measures, Stormwater Control Measures for High-Risk Areas

Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide additional treatment to address pollutants of concern unless these high-risk areas are not hydraulically connected to stormwater runoff and Permanent Stormwater Control Measures.

D6.8.4 Runoff Reduction Measures

Runoff Reduction Measures are Permanent Stormwater Control Measures that reduce the amount of stormwater runoff from a site and reduce area required for control by bioretention, Flow-Through, and subsurface infiltration Stormwater Control Measures. Below are descriptions of the runoff reduction measures that may be used, design requirements, and crediting towards compliance with post-construction requirements.

Runoff reduction measures include Impervious Connection to Vegetated Areas, Interceptor Trees, Pervious Pavement, and Green Roofs, as described in the following sections.

D6.8.4.1 Impervious Connection to Vegetated Areas

1. Description – Impervious Connection to Vegetated Areas

This Impervious Connection to Vegetated Areas site design measure utilizes properly-configured vegetated areas that intercept, slow, and allow infiltration of stormwater runoff from directly connected impervious areas while allowing sediment and other pollutants to settle and infiltrate. Vegetated areas may receive stormwater runoff from impervious areas such as driveways, roads, roof downspouts, and parking lots.

2. Design and Maintenance Requirements – Impervious Connection to Vegetated Areas

- a. The vegetated area shall be sized and designed to maximize infiltration of the design storm.
- b. The maximum paved area that may drain to a single vegetated area is 5,000 square feet. Paved surfaces shall sheet flow onto vegetated areas.
- c. The maximum rooftop area that may drain to a single vegetated area is six hundred square feet.
- d. Vegetated area slopes shall not exceed 15 percent.
- e. The vegetated area length (in direction of flow) shall be as long as the site will reasonably allow, but in no instance shall be less than 15 feet. Where concentrated flow from rooftops is directed to vegetated areas, sufficient vegetated area width and appropriate design measures shall be provided to dissipate flows, prevent concentrated flows and erosion, and maximize infiltration.

- f. Level spreaders shall be utilized where impervious contributing paved areas and vegetated areas exceed 5 percent slope or where conditions are present that cause concentrated flow. The level spreader shall be a minimum of ten feet in length (perpendicular to flow) per one cubic foot per second of stormwater flow that is directed to it and in no instance shall be less than 10 feet in length.
 - g. Vegetation shall be selected to thrive without fertilization and pesticide application, be non-invasive, and grow in great enough density to trap pollutants.
 - h. Vegetated areas shall be designed and maintained to remain fully functional and free of erosion.
 - i. Vegetated areas shall be protected from vehicular traffic and other activities that may compact soils, cause erosion, or damage vegetation.
 - j. The vegetated area shall not contain any built-upon areas except for incidental areas such as utility boxes, signs, and lamp posts.
 - k. Bioretention, infiltration, detention, or retention basins and chambers do not qualify as an impervious area disconnection site design measure. Such features shall be designed in accordance with the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
3. Crediting– Impervious Connection to Vegetated Areas
- a. A maximum of 50 percent of the drainage management area controlled by the vegetated area may be used to meet the requirements of the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - b. Self-retaining area design and crediting criteria are subject to Regional Board Executive Officer approval and may only be allowed in instances where the self-retaining areas would retain the applicable design criteria flow or volume.

D6.8.4.2 Interceptor Tree Planting and Preservation

1. Description – Interceptor Tree Planting and Preservation

Interceptor trees are evergreen or deciduous trees that intercept rainwater on their leaves and branches. Intercepted water is held within the tree canopy and runs down the branches and trunk of the tree where it may

infiltrate into the soil at an enhanced rate. Credit for interceptor trees applies to both planted and preserved trees.

2. Design and Maintenance Requirements – Interceptor Tree Planting and Preservation
 - a. Mature tree canopies shall overhang impervious areas and trunks shall be located within twenty-five feet of project impervious areas.
 - b. Existing and planted trees shall be and remain healthy. Trees and their root zones shall be adequately protected during construction.
 - c. Infrastructure surrounding trees shall be designed to prevent girdling of the tree trunk at all life stages.
 - d. Pervious surfaces surrounding the base of new and established trees shall be of sufficient area to allow for infiltration of stemflow and throughfall stormwater runoff. Pervious areas may include bare soil, pervious pavement, permeable pavers, and suspended pavement over uncompacted or structural soil.
 - e. Soils that support the selected tree species shall be used.
 - f. A minimum of two cubic feet of uncompacted or structural soil volume shall be provided for each square foot of estimated mature tree canopy. Adequate soil volume shall be provided to support the estimated mature tree canopy area and shall be certified by a landscape architect or other qualified professional.
 - g. Where feasible, a mulch layer consisting of tree leaves or an introduced mulch layer shall surround trees to help build a healthy and infiltrative soil, retain moisture from rainfall and runoff, and increase evaporation and infiltration of runoff.
 - h. Inspection and maintenance plans shall accompany proposals to claim credit for existing and planted trees. At a minimum, inspection and maintenance plans shall include appropriate annual watering, mulch maintenance, and replacement of dead and dying trees.
 - i. Native species and trees with large canopies at maturity are preferred. Dwarf, palm, and invasive species are not acceptable.
 - j. To maintain existing tree health, avoid grade changes that may impact tree roots or accumulation of excess moisture in the trunk area.
 - k. Where possible, existing plants that are compatible with the tree's irrigation requirements should be preserved.

3. Crediting – Interceptor Tree Planting and Preservation
 - a. For each drainage management area, an amount equivalent to 75 percent of the actual or estimated mature evergreen tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - b. For each drainage management area, an amount equivalent to 50 percent of the actual or estimated mature deciduous tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

D6.8.4.3 Pervious Pavement Systems

1. Description - Pervious Pavement Systems

A pavement system consisting of permeable interlocking concrete pavement (PICP), pervious or permeable concrete unit pavers, pervious grid pavements, pervious concrete, porous asphalt, turf block, grasscrete, and bricks and stones, set on a gravel base with gravel joints, which stores and infiltrates rainfall at a rate equal to natural areas, or that stores and infiltrates the rainfall runoff volume described in section D6.8.5 Criteria for Stormwater Treatment, Retention, and Peak Flow Control.

2. Design and Maintenance Requirements - Pervious Pavement Systems

- a. To be considered “pervious,” the surface shall infiltrate into the underlying soil at a rate that is equal to or greater than the pre-project pervious, uncompacted soil conditions.
- b. Project proponents utilizing this site design measure shall have and implement an inspection and maintenance plan to ensure that the pavement infiltration capacity is maintained over time. Pervious pavement shall be maintained (e.g., vacuum swept) at an appropriate frequency to maintain full functionality.
- c. Pervious pavement systems should not be used in areas with medium to heavy vehicular traffic. Parking lots are acceptable.
- d. Limit use in potentially high pollutant loading areas.
- e. No erodible areas or area of high sediment generation may drain onto porous and permeable pavements.

- f. No liners or other barriers or design elements, such as lime treatment, which would limit infiltration shall be used below pervious pavement and permeable paver sections.
- g. In systems with underdrains, sufficient storage below the underdrain shall be provided by increasing the depth of the permeable base such that the design storm runoff volume will infiltrate.
- h. Pervious pavement systems should not be used in areas of known soil or groundwater contamination without Regional Water Board prior authorization.
- i. Pervious pavement systems that lose their infiltration capacity shall be replaced.

3. Crediting - Pervious Pavement Systems

- a. Pervious pavement systems may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
- b. Stormwater control credit may not be claimed for any runoff directed to pervious pavement systems.

D6.8.4.4 Green Roofs

1. Description – Green Roofs

Green roofs are roofs that are entirely or partially covered with vegetation and soils. Green roofs function as a soil and plant-based filtration feature that removes pollutants through a variety of natural physical, biological, and chemical treatment processes prior to discharge.

2. Design and Maintenance Requirements – Green Roofs

- a. Shall be adequately designed by a qualified engineer, including an appropriate assessment of the necessary load reserves.
- b. Overflow requirements shall be considered in the design.
- c. Roof design shall provide a sufficient soil layer to support healthy plants, ensure soil is secure and will not erode or sluff, and provide adequate drainage for both plant health and high flow bypass.
- d. The green roof system planting media shall be sufficiently deep to provide capacity within the pore space of the media for the required

runoff volume specified by the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

- e. Plants selected shall be suited for the unique shallow soil conditions.
- f. Vegetation should be selected to thrive without irrigation but may be irrigated during establishment and during the dry weather to keep vegetation alive.
- g. Green roof plant cover density shall be a minimum of 51 percent.
- h. Surface mulching material shall be non-floatable in order to prevent clogging of downstream inlets.
- i. Project proponents utilizing green roofs shall have and implement a maintenance plan to ensure that minimum plant cover density and functionality is maintained over time.

3. Crediting – Green Roofs

Green roof areas may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

D6.8.4.5 Rainwater Capture and Use

1. Description – Rainwater Capture and Use

Rainwater capture and use involves collecting stormwater runoff from impervious surfaces in tanks (e.g., rain barrels and cisterns) that are appropriately sized to allow for use of the collected runoff. Collected runoff may be used for irrigation, greywater systems, or other uses. Cisterns can be installed above or below ground depending upon design requirements and site conditions.

2. Design, Operation, and Maintenance Requirements – Rainwater Capture and Use

- a. Project proponents shall demonstrate to the Permittee through water balance calculations how the captured water will be stored and used to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
- b. Project proponents utilizing rainwater capture and use shall have and implement a maintenance and operations plan to ensure that rainwater

capture will continue to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

- c. Rain barrels and cisterns shall be designed and maintained to prevent mosquito breeding.
 - d. Rain barrels and cisterns shall be opaque, water-tight, vented, completely covered and all openings shall be screened.
 - e. If used for peak flow controls, design calculations shall show continuous capacity to control peak flows, or include appropriately sized detention storage in addition to the retention volumes stored.
3. Crediting – Rainwater Capture and Use

For each Drainage Management Area, the volume captured from the design storm may apply to the total volume of stormwater required for control under provision Criteria for Stormwater Treatment, Retention and Peak Flow Control.

D6.8.5 Criteria for Stormwater Treatment, Retention, and Peak Flow Control

The Permittee shall require all Regulated Projects be designed to treat, retain, or capture and use stormwater to meet the following hydraulic design criteria:

1. Water Quality Treatment Requirements

Regulated Projects creating and/or replacing between 5,000 and 22,000 square feet of impervious surface shall size and design Permanent Stormwater Control Measures to:

- a. Treat the greater of:
 - 1) The runoff flow rate produced from a rain event equal to at least 0.2 inches per hour intensity;
 - 2) The runoff flow rate produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity (in inches per hour), as determined from local hourly rainfall records; or
- b. Retain the volume of runoff specified in the section Retention Requirements, below.

2. Retention Requirements

Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall retain a volume of stormwater runoff from the drainage management area equivalent to the volume:

- a. Generated by the 85th percentile, 24-hour rainfall event as determined from local rainfall records²; or
 - b. Annual runoff required to achieve 80 percent or more retention, determined in accordance with the methodology in section 5 of the California Stormwater Quality Association's Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data.
3. Peak Flow Control Requirements
- a. Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall implement peak flow controls to match pre-development peak flow conditions from the 2-year, 24-hour rain event.
 - b. Peak flow controls may be designed such that they meet the requirements of both the sections Retention Requirements and the Peak Flow Control Requirements, thus not requiring two separate control measures.

D6.8.6 Selection of Permanent Stormwater Control Measures for Stormwater Retention and Treatment

The Permittee shall require Regulated Projects to meet stormwater retention and treatment criteria by implementing Permanent Stormwater Control Measures consistent with the below order of prioritization and design criteria. Implementation of lower-priority Permanent Stormwater Control Measures shall be justified in the Stormwater Control Plan. Use of lower priority Permanent Stormwater Control Measure does not exempt a drainage management area from the section Target Pollutants of Concern and Criteria for Stormwater Treatment, Retention, and Peak Flow Control requirements, or the need for offsite alternatives if retention and peak flow requirements cannot be met onsite.

1. Bioretention Stormwater Control Measures
 - a. Bioretention Stormwater Control Measures retain stormwater runoff using vegetated depressions and soils engineered to capture, treat, and infiltrate stormwater runoff. Bioretention best management practices implemented to the maximum extent practicable standard are

² Determined using the formula and volume capture coefficients in Urban Runoff Quality Management, Water Environment Federation Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998) pages 175-178

considered the highest priority Permanent Stormwater Control Measure for all Regulated Projects and shall be demonstrated to be infeasible per the Flow Through Stormwater Control Measures section and its subsection Biofiltration before Biofiltration or Subsurface Infiltration Stormwater Control Measures are considered.

b. Bioretention Stormwater Control Measure Design Standards

Bioretention best management practices designed to the maximum extent practicable standard shall achieve applicable treatment and retention requirements and comply with the following design standards:

- 1) Bioretention Stormwater Control Measures shall be vegetated and include at least 51 percent vegetation cover at plant maturity. Appropriate plants shall be selected for the specified soil mix and hydrologic conditions.
 - a) Bioretention Stormwater Control Measures shall be designed without horizontal liners or barriers that interfere with infiltration. A vertical liner may be used to prevent lateral flow and to separate the native soil from the bioretention soil media and aggregator an adjacent geotechnical hazard.
 - b) Bioretention Stormwater Control Measures designed to achieve retention requirements shall be designed without perforated pipes installed at the bottom of the best management practice. In locations with low in-situ soil infiltration rates or other conditions limiting infiltration, the Stormwater Control Measure may be designed with an elevated perforated pipe where the retention volume is achieved below the pipe elevation.
 - c) Bioretention Stormwater Control Measures shall have a planting medium area sufficient to ensure that the design maximum surface loading rate does not exceed 5 inches per hour, based on the flow rates calculated according to the criteria in the section Criteria for Stormwater Treatment, Retention, and Peak Flow Control.
 - d) Bioretention Stormwater Control Measures shall have a minimum surface reservoir volume equal to surface area times a depth of six inches.
 - e) Bioretention Stormwater Control Measures shall have a minimum planting medium depth of eighteen inches. The planting medium shall sustain a minimum infiltration rate of five inches per hour throughout the life of the project and shall maximize runoff retention and pollutant removal.

- f) A mixture of sand (60 to 70 percent) meeting the specifications of American Society for Testing and Materials (ASTM) C33 Method and compost (30 to 40 percent) may be used.
- g) Bioretention Stormwater Control Measures shall have subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of twelve inches.
- h) Bioretention Stormwater Control Measures shall have no compaction of soils beneath the facility.
- i) Pesticides shall not be used in bioretention Stormwater Control Measures.
- j) Bioretention Stormwater Control Measures shall be designed with a high flow bypass that is not connected to the underdrain. High flow bypasses shall not create erosive conditions.
- k) Bioretention Stormwater Control Measure mulch shall be aged, stabilized, non-floating mulch.

2. Flow-Through Stormwater Control Measures

- a. Flow-Through Stormwater Control Measures are Stormwater Control Measures that do not fully meet the Bioretention Stormwater Control Measure criteria but may be used when use of a Bioretention Stormwater Control Measure is demonstrated to be infeasible as described in subsection Biofiltration, below. Flow-Through Stormwater Control Measures shall treat all pollutants of concern to the maximum extent practicable and be used in conjunction with another Stormwater Control Measure, a combination of Stormwater Control Measures, or offsite alternative to fully meet stormwater retention and peak flow control requirements, where applicable. Flow-Through Stormwater Control Measures shall be selected in the following order of priority.

- b. Biofiltration

Biofiltration Stormwater Control Measures are designed consistent with the section Bioretention Stormwater Control Measure design standards, except they are installed with underdrains and where necessary, impermeable liners. Stormwater Control Measures in this category utilize plants and soils to treat stormwater prior to discharge but may not retain the entire volume specified in the section Retention Requirements. These Stormwater Control Measures may be allowed in the circumstances where installation of Bioretention Stormwater Control Measures are infeasible for one of the following four reasons.

- 1) Stormwater retention would cause or exacerbate a geotechnical or structural hazard as established by the geotechnical expert for the project.
 - 2) Stormwater retention may mobilize pollutants in areas of known groundwater contamination.
 - 3) Stormwater Control Measure placement is only feasible on a plaza or other elevated structure (e.g., flow-through planter).
 - 4) Other criteria approved by a Regional Water Board Executive Officer.
- c. Alternative Flow-Through Stormwater Control Measures

Alternative flow-through Stormwater Control Measures are Stormwater Control Measures that do not meet biofiltration criteria and are often proprietary devices with varying levels of design, treatment capabilities, and performance. Alternative Stormwater Control Measures may be selected, in the following order of priority, in instances where 1) higher-priority Stormwater Control Measures would interfere with historic structures or landscapes and whose original configuration is required to be preserved by local ordinance in order to maintain their historic integrity, or 2) projects that create or replace an acre or less of impervious area, and are located in a designated pedestrian-oriented commercial district (e.g., smart growth projects), and have at least 85 percent of the entire project site covered by permanent structures:

- 1) Landscape-based Flow-Through Stormwater Control Measures that do not meet the Bioretention or Biofiltration Stormwater Control Measure criteria. Example best management practices include but are not limited to tree-box media filter units and modular wetlands.
 - 2) Physical structured Stormwater Control Measures that are not landscape-based. Example Stormwater Control Measures include in-vault media filters, chambered separator units, hydrodynamic separators, physical filters, trash excluders, and trash separators.
3. Subsurface Infiltration Stormwater Control Measures
- a. Subsurface Infiltration Stormwater Control Measures are stormwater holding and infiltration systems that rely upon unsaturated soils above the water table to provide stormwater treatment and include, but are not limited to, infiltration trenches, infiltration basins, dry ponds, dry wells, sumps, infiltration galleries, and underground modular storage units. Subsurface Infiltration Stormwater Control Measures may only be permitted to meet retention requirements after Bioretention Stormwater Control Measures are demonstrated infeasible per the subsection

Biofiltration under the Flow-Through Stormwater Control Measures section. Subsurface Infiltration Stormwater Control Measures may only be permitted to meet water quality treatment control requirements after Bioretention and Biofiltration Stormwater Control Measures are demonstrated infeasible.

- b. Subsurface infiltration Stormwater Control Measures shall a) be technically feasible, b) fully infiltrate all stormwater within 72 hours, c) be protected from construction phase discharges and kept offline until the project site is stabilized and prepared for final occupancy, d) achieve the required treatment, retention, and peak flow requirements, and e) not degrade groundwater quality.
- c. Applicants of projects with proposed subsurface infiltration of stormwater shall demonstrate in the Post-Construction Stormwater Control Plan compliance with local guidelines, if available, or approval by the Regional Water Board Executive Officer (see sections d and e below).
- d. Local Infiltration Guidelines

The Permittee may propose local infiltration guidelines for runoff that has not been fully treated by Biofiltration or Flow-Through Stormwater Control Measures. These guidelines, if approved, shall be incorporated into their ordinances to include both vertical and horizontal setback criteria taking into account both surface conditions (for example, land use such as residential, industrial, etc.) and subsurface conditions (for example, soil conditions, areas of known contamination, depth to groundwater, etc.). Proposed guidelines shall be submitted to the Regional Water Board Executive Officer for approval.

- e. Regional Board Approval

If local infiltration guidelines have not been proposed by the Permittee or approved by the Regional Board Executive officer, then proposals for subsurface infiltration of stormwater are subject to the prior review and approval of the applicable Regional Water Board Executive Officer on a project-by-project basis. Proposals shall demonstrate that 1) Bioretention Stormwater Control Measures are infeasible per subsection Biofiltration under the section Flow-Through Stormwater Control Measures; 2) Flow-Through Stormwater Control Measures are infeasible; 3) subsurface infiltration is feasible; and 4) subsurface infiltration will not degrade groundwater. Proposals shall include the following information:

- 1) Depth between bottom of infiltration system and seasonally high groundwater. The smaller the distance to groundwater, the greater

the threat to water quality and potential for decrease in infiltration rates;

- 2) Depth between bottom of infiltration system and underlying impermeable layers that may restrict infiltration of stormwater;
- 3) Proximity of the infiltration system to wells and springs used for drinking water supplies. In certain site-specific conditions, infiltrated stormwater may be a threat to drinking water if hydraulically connected and in close proximity to water supply wells;
- 4) Proximity to onsite wastewater treatment systems (e.g., septic systems, drain fields). Stormwater infiltration may interfere with the designed operation of onsite wastewater treatment systems or mobilize pollutants;
- 5) Soil type and characteristics underlying the infiltration system. There is a direct relationship between soil pore space and hydraulic conductivity, and potential for stormwater effects on groundwater. Additionally, soil properties affect pollutant treatment capacity, such as the positive effect of soil cation exchange capacity on phosphorous and metals removal;
- 6) Proximity to areas of known groundwater contamination. Stormwater infiltration may mobilize groundwater contaminants and plumes;
- 7) Characterization of expected pollutant sources. Site-specific, potential pollutant sources from the contributing area shall be evaluated for threat to groundwater and need for pre-treatment. For instance, areas subject to deicing practices may produce pollutants that threaten groundwater, and areas with copper roofs or galvanized metals may transport dissolved metals;
- 8) Proximity to building foundations, utilities, and nearby structures. Infiltration of stormwater adjacent these features may interfere with infiltration, compromise building foundations or base material surrounding utilities, or result in seepage of water into subsurface building spaces;
- 9) Proximity to landforms that may present or exacerbate geotechnical hazards as a result of stormwater infiltration e.g., low-angle geologic formations and jointing, historic and pre-historic landslides, karst terrain;
- 10) A maintenance plan that ensures sediment and debris do not interfere with the short- and long-term ability of the system to function

as designed. Stormwater infiltration systems may be easily clogged by sediment;

- 11) A groundwater mounding analysis may be required, where appropriate, such as areas where infiltration occurs in close proximity to:
 - a) Seasonally high groundwater elevation;
 - b) Contaminated groundwater;
 - c) Onsite wastewater treatment systems
 - d) Building, structure, or underground utility;
 - e) Other infiltration best management practices; and
 - f) Soils with low saturated hydraulic conductivity.

4. Alternatives to Onsite Retention and Peak Flow Control Requirements

Permittees may allow Regulated Projects to fulfill a portion or all of its retention or peak flow requirements at an offsite location in the following two instances.

a. Project Specific Limitations

The Permittee may allow a Regulated Project to offset retention and/or peak flow requirements at an offsite location only when all of the following are satisfied:

- 1) Forgoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.
- 2) Opportunities to implement the requirements of the section Criteria for Stormwater Treatment, Retention, and Peak Flow Control have been maximized onsite and full or partial compliance with the remaining requirements are demonstrated technically infeasible per the sections Biofiltration in the Flow-Through Stormwater Measures and the section Subsurface Infiltration Stormwater Control Measures.
- 3) The offsite offset project provides hydraulically sized retention and peak flow control (per the section Permanent Stormwater Control Measure Selection and Sizing) of stormwater runoff that meets or exceeds the foregone amount from the applicable Regulated Project.

- 4) Offsite offset project(s) are within the same watershed as the Regulated Project, or the Offsite offset project site(s) located outside the watershed have prior approval of the Regional Board Executive Officer.
 - 5) Offsite offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.
- b. Approved Watershed or Regional Plan
- 1) Watershed or Regional Plans are plans that present a coordinated strategy to mitigate specific development impacts using regional and watershed-scale stormwater control measures. A project or projects from an approved Watershed or Regional Plan may be used to offset the Regulated Project's required retention or peak flow requirements. Proposed Watershed or Regional Plans shall be subject to the prior review and approval of the Regional Board Executive Officer and shall include, at a minimum:
 - 2) Demonstration that implementation of projects per the Watershed or Regional Plan will be as effective in meeting the applicable section Permanent Stormwater Control and Sizing requirements as meeting them on site.
 - 3) Quantitative analysis (e.g., calculations and modeling) used to evaluate offsite compliance.
 - 4) A demonstration that forgoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.
 - 5) A consideration of the long-term cumulative impacts of urbanization, including existing and future development;
 - 6) A description of proposed offset project(s). The proposed offset projects may include existing facilities or prospective projects.
 - 7) The location of the proposed offset project(s), which shall be within the same watershed as the Regulated Project. Offset project sites located outside the watershed are subject to the approval of the Regional Board Executive Officer.

- 8) Offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.

D6.9 Operations and Maintenance Plan and Operation and Maintenance of Post-Construction Stormwater Control Measures

D6.9.1 Permittee's Operation and Maintenance Plans

The Permittee shall ensure that operation and maintenance plans exist for all Permanent Stormwater Control Measures in its MS4 boundary. The Permittee's Operation and Maintenance Plan shall:

1. Require regulated project proponents and their successors develop and implement an adequate Operations and Maintenance Plan.
2. Require at least one of the following from all Regulated Project proponents and their successors in control of the project or successors in fee title:
 - a. The project proponent's signed statement accepting responsibility for the operation and maintenance of Permanent Stormwater Control Measures until such responsibility is legally transferred to another entity;
 - b. Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity;
 - c. Written text in project deeds, or conditions, covenants and restrictions for multi-unit residential projects that require the homeowners' association or, if there is no association, each individual owner to assume responsibility for the operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity; or
 - d. Any other legally enforceable agreement or mechanism, such as recordation in the property deed, which assigns the operation and maintenance responsibility for the installed Permanent Stormwater Control Measures (if any) to the project owner(s) or the Permittee.
3. Develop and implement a written plan that describes operation, maintenance, and inspection of all Permittee-owned or operated Permanent Stormwater Control Measures.

4. Coordinate with the appropriate mosquito and vector control agency to establish a protocol for notification of installed Permanent Stormwater Control Measures. Before October 1st of every year, the Permittee shall submit a list of Permanent Stormwater Control Measures installed within the reporting year to the local mosquito and vector control agency and the appropriate Regional Water Board. The Permittee may submit the list of Regulated Projects. This list shall include the facility locations and a brief description of the Permanent Stormwater Control Measures.
5. Submit requests for a Deferred Maintenance Exemption to the appropriate Regional Water Board when the following conditions are met:
 - a. The Permanent Stormwater Control Measure responsible party has worked diligently and in good faith with the appropriate state and federal agencies and the Permittee to obtain approvals necessary to complete deferred maintenance activities; and
 - b. Approvals are not granted because maintenance would result in significant impacts to waters of the state.

D6.9.2 Maintenance Assessment / Inspection of Stormwater Treatment Facilities.

The Permittee shall ensure that all Regulated Project Permanent Stormwater Control Measures are properly operated and maintained for the life of the projects. The Permittee shall implement an Operations and Maintenance Verification Program (Verification Program) to verify that all Permanent Stormwater Control Measures maintain full functionality. At a minimum, the Verification Program shall include the following elements:

1. Conditions of approval or other legally enforceable agreements or mechanisms for all Regulated Projects that require the granting of site access to all Permittee representatives for the purpose of performing operation and maintenance inspections of the installed Permanent Stormwater Control Measures.
2. A database or equivalent tabular format inventory of all Regulated Projects (public and private) that have installed Permanent Stormwater Control Measures. This Post-Construction Inventory shall include the following information for each Regulated Project:
 - a. Name and address of the Regulated Project;
 - b. Specific description of the location (or a map showing the location) of the installed Permanent Stormwater Control Measures (if any);
 - c. Installation date(s) of the Permanent Stormwater Control Measures;

- d. Description of the type and size of the installed Permanent Stormwater Control Measures;
 - e. Responsible operator(s) of Permanent Stormwater Control Measures;
 - f. Dates and findings of Permittee inspections (routine and follow-up) of the Permanent Stormwater Control Measures; and
 - g. Corrective and enforcement actions taken.
3. A process for Permittee verification of the relative maintenance condition of Permanent Stormwater Control Measures. Maintenance condition shall be determined using one of the following options:
- a. Self-Certification Program – The Permittee shall implement a program that includes:
 - 1) Requirement that authorized parties demonstrate proper maintenance and operations by submitting self-certification annual reports that include:
 - a) Field observations to determine the effectiveness of the Permanent Stormwater Control Measures in removing pollutants of concern from stormwater runoff and reducing hydromodification impacts as designed.
 - b) Long-term plan for conducting regular maintenance of Permanent Stormwater Control Measures, including vegetation. The long-term plan shall identify the frequency of regular maintenance activities.
 - 2) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.
 - 3) Permittee assessments of the self-certification program annual reports. Assessment shall include a ranking of Permanent Stormwater Control Measures and verification that the control measures are operating to remove pollutants as designed. Regional Permanent Stormwater Control Measures should receive higher priority than lot-scale Permanent Stormwater Control Measures, and Permanent Stormwater Control Measures designed to remove pollutants for which receiving water is impaired should receive priority attention over other Permanent Stormwater Control Measures.
 - 4) Permittee onsite inspections of at least one-half of all Permanent Stormwater Control Measures every five years. The inspections shall:
 - a) Identify whether the Permanent Stormwater Control Measure is functioning as designed;

- b) Include a review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan; and
 - c) Identify maintenance actions needed and timeline for their implementation.
 - d) Determine whether self-certification reports reflect actual site conditions.
- b. Permittee-led Inspection Program - Permittees shall develop and implement an annual inspection program to verify Permanent Stormwater Control Measures are properly maintained and operated. The inspection program shall include the following:
- 1) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.
 - 2) Permittee inspection of all Permanent Stormwater Control Measures, at a minimum of once every five years, or more frequently as appropriate based on inspection results. Inspections shall include:
 - a) Field inspection of the facility;
 - b) Identify whether the Permanent Stormwater Control Measure is functioning as designed;
 - c) Identify maintenance actions needed and timeline for their implementation.
 - d) Review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan; and
 - e) Documentation of the inspection.
 - 4. Implementation of the Permittee's Enforcement Response Plan, including escalating enforcement actions to ensure proper maintenance of Permanent Stormwater Control Measures.

D6.9.3 Permanent Stormwater Control Measure Field Verification

The Permittee shall establish and implement a mechanism (a checklist or other tools) to verify that Permanent Stormwater Control Measures are constructed as designed and approved in accordance with these Permanent Stormwater Management Requirements.

- 1. Prior to temporary and final occupancy of each Regulated Project, the Permittee shall field verify that the Runoff Reduction, treatment, retention, and peak flow controls have been implemented in accordance with these

Post-Construction Requirements. The Permittee may accept third-party verification of Permanent Stormwater Control Measures conducted and endorsed by a registered professional engineer, geologist, architect or landscape architect.

D6.10 Planning and Development Review Process

1. The Permittee shall incorporate into their entitlement process standard procedures that require consideration of potential stormwater quality impacts early in the planning process of any project that meets the criteria of this Order for new development and redevelopment projects. Each Permittee shall clearly demonstrate the developer and Permittee considered stormwater quality site issues before the facilities/projects reached final design. The Permittee shall demonstrate review in the conceptual design of stormwater quality protection at the earliest possible stage in the project planning and discretionary or ministerial permitting process:
2. The Permittee shall establish a plan review and approval process for public and private regulated projects that includes an organizational structure for communication, coordination, and delineated authority between and among municipal departments that have jurisdiction over project review, plan approval, and project construction.
3. For each Regulated Project subject to the Low Impact Development requirements, the Permittee shall require the Project Applicant to provide a Post-Construction Stormwater Control Plan that includes the following and other necessary information to show how the proposed project will comply with the requirements.
 - a. Project Name, application number, and location including address and assessor's parcel number.
 - b. Name of Applicant
 - c. Project Phase number (if project is being constructed in phases)
 - d. Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description
 - e. Total project site area
 - f. Total new and replaced impervious surface area.
 - g. Summary of Site Assessment
 - h. Pre-and post-development Drainage Management Areas,
 - i. Summary of Permanent Stormwater Control Measures used.
 - j. Justification wherever 1) lower-priority Permanent Stormwater Control Measures are selected due to infeasibility of higher priority Permanent

- Stormwater Control Measures and 2) Alternatives to Onsite Retention and Peak Flow Control Requirements are used to meet retention and peak flow requirements. The justification(s) shall cite relevant portions of the Order allowing selection of lower priority Permanent Stormwater Control Measures and allowance of the offsite projects.
- k. Summary of Source Controls, Runoff Reduction Measures, and Permanent Stormwater Control Measures by Drainage Management Area, as well as for the entire site.
 - l. Supporting calculations that document proper design and sizing of runoff reduction measures and stormwater control measures used to comply with the applicable requirements.
4. The Permittee shall not grant approval for construction of impervious surfaces, until the Post-Construction Stormwater Control Plan for the Regulated Project sufficiently demonstrates the Regulated Project design meets the Low Impact Development Design Requirements.
- a. New Permittees shall review their planning and permitting process to assess any gaps or impediments impacting effective implementation of these post-construction requirements specified in the section Planning and Development Review Process. Where these are found to exist, Permittees shall seek solutions to promote implementation of these requirements within the context of public safety and community goals for land use. New Permittees shall conduct the review using an existing guide or template already developed for MS4s (such as the [Municipal Regulatory Update Assistance Program](http://www.casqa.org/LIDDemo/LIDTraining/tabid/246/Default.aspx) (<http://www.casqa.org/LIDDemo/LIDTraining/tabid/246/Default.aspx>)). Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall conduct an analysis of the landscape code to correct gaps and impediments impacting effective implementation of post-construction requirements.
 - b. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall complete any changes to the landscape code to effectively administer post-construction requirements.
 - c. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall complete any changes to the planning and permitting process to effectively administer these provisions.

D6.11 Alternative Post-Construction Stormwater Management Requirements Based on Assessment and Maintenance of Watershed Processes

1. Small MS4s subject to this Order, in place of complying with the requirements set forth in Sections D6.1 through D6.9 and Section D10.6 (Post-Construction Program Reporting) of this Order, shall comply with post-construction stormwater management requirements based on a watershed-process approach developed by Regional Water Boards that includes the following:
 - a. Completion of a comprehensive assessment of dominant watershed processes affected by urban stormwater.
 - b. Low impact development runoff reduction measures, numeric runoff treatment and retention controls, and hydromodification controls that will maintain watershed processes and protect water quality and beneficial uses.
 - c. A process by which Regional Board staff will actively engage Permittees to adaptively manage requirements as determined by the assessment of watershed processes.
 - d. An annual reporting program that involves Regional Water Board staff and State Water Board staff to inform statewide watershed process-based criteria.
2. The regional watershed-process based approach shall be approved by the Regional Water Board following a public process.

D6.12 Alternative Post-Construction Stormwater Management Multiple Benefit Projects

1. A Permittee may propose alternative post-construction measures in lieu of some or all of section Post-Construction Stormwater Management Program requirements for multiple benefit projects.
2. Multiple Benefit Projects
 - a. Multiple benefit projects include projects that address any of the following, in addition to water quality:
 - 1) Water supply;
 - 2) Flood control;

- 3) Habitat enhancement;
 - 4) Open space preservation;
 - 5) Recreation; and
 - 6) Climate change.
- b. Multiple benefit projects may be applied at various scales including project site, municipal or sub-watershed level.
 - c. Multiple benefit projects may include, but are not limited to, projects developed under Watershed Improvement Plans (Water Code §16100 et seq.), Stormwater Resource Plans, Integrated Regional Water Management Plan implementation and green infrastructure projects.
3. Alternative post-construction measures for multiple benefit projects shall be equally or more protective of water quality than equivalent requirements it is replacing.
 4. If the Regional Water Board or Executive Officer finds, after an opportunity for public comments, that the alternative measures are consistent with the maximum extent practicable standard, alternative post-construction measures for multiple benefit projects, as described above, may be implemented.

D7. TMDL DEMONSTRATION OF COMPLIANCE REPORT AND REQUEST FOR TIME SCHEDULE ORDER

Attachment G contains a list of TMDL-specific responsible Permittees and implementation, monitoring, and reporting requirements, which are applicable to identified responsible Permittees. The sections TMDL Demonstration of Compliance Report and Request for Time Schedule Order, below, provide the reporting requirements for TMDL demonstration of compliance.

D7.1 TMDL Demonstration of Compliance Report

For purposes of this section, the wasteload allocations specified in the applicable TMDLs (as identified in the Fact Sheet) are incorporated by reference. Permittees shall submit a TMDL Demonstration of Compliance Report, as follows:

1. Submit to SMARTS and the applicable Regional Water Board Executive Officer for review and consideration of approval.
2. Prior to the deadline to comply with the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations if the permittee reports and substantiates that it is timely implementing all best management practices, maintenance, and other requirements specified in Attachment G for that TMDL. Alternatively, the Permittee may make a demonstration of compliance in accordance with subsection D7.1.3.
3. On or after the deadline to attain the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations if the permittee meets one or more of the criteria in subsections (a) through (g), as follows:
 - a. Receiving Water Quality Monitoring. Receiving water monitoring and analysis by the Permittee or other responsible parties under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the Permittee's discharge; or
 - b. Loads from Other Sources. Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the Permittee are not causing or contributing to the exceedances; or
 - c. Concentrations. Where the wasteload allocation is expressed as a concentration, sampling of the Permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or
 - d. Mass-Based Wasteload. Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge is attaining the individual or joint allocation or the percent reduction; or

- e. Allowable Exceedance Days. Where a wasteload allocation is expressed as the number of allowable exceedance days, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge conforms to the allowable exceedance days; or
- f. No Discharge. The Permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or
- g. Other Factors. The Permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s) and as approved by the Regional Water Board or its designee.

D7.2 Request for Time Schedule Order

In some cases, Attachment G includes dates that have already passed or fall outside the term of this Order. Compliance deadlines for wasteload allocations and other permit requirements that exceed the term of this Order become enforceable in the event that this Order is administratively extended. Some wasteload allocation compliance deadlines have already passed and are enforceable on the effective date of this Order.

1. Requests for Extensions and Time Schedule Orders

Where a final deadline to comply with a wasteload allocation has passed and the Permittee has not demonstrated compliance, the Permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. Permittees may request a time schedule order individually or together with other Permittees subject to the TMDL. Permittees may also request time schedule orders where the Permittee has not timely complied with a best management practice-based water quality-based effluent limit or other TMDL-related permit requirement.

A Permittee's request to the applicable Regional Water Board for a time schedule order shall include the following information:

- a. Any available data demonstrating the current quality of the MS4 discharge(s) in terms of the applicable wasteload allocation units (i.e., concentration or load) of the target pollutant(s) to the receiving waters subject to the TMDL;

- b. A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
- c. Justification of the need for additional time to achieve the requirements;
- d. The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G; and
- e. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

D8. WATER QUALITY MONITORING

D8.1 Regional Monitoring Programs

1. Upon approval by the applicable Regional Water Board Executive Officer, Permittees may participate in a Regional Water Board approved monitoring program (e.g., Delta Monitoring Program, San Francisco Bay Regional Monitoring Program) in lieu of all or a portion of the Water Quality Monitoring section.
2. As part of its approval, the applicable Regional Water Board Executive Officer shall determine that the Regional Water Board approved monitoring program adequately substitutes for the requirements of the Water Quality Monitoring section being substituted for by the approved monitoring program.
3. All Permittees participating in an approved regional monitoring program at the time of the Order effective date shall consult with the Regional Water Board within 1 year of the effective date of the permit to assess which elements of this Order's Water Quality Monitoring section are adequately addressed by the approved monitoring program and which elements the Permittees should continue to implement.
4. Permittees participating in a regional monitoring program shall complete a memorandum of agreement to participate in the program within 1 year of the

effective date of this Order or the Permittee's effective date of Designation, whichever is later.

5. Where a regional monitoring group has initiated plans before the effective date of this Order to conduct monitoring that achieves compliance with the Water Quality Monitoring section, the Permittee may request the Executive Officer of the applicable Regional Board tailor compliance dates in this permit to synchronize with the monitoring program. Additionally, existing regional monitoring efforts shall be reviewed and approved by a Regional Water Board Executive Officer.
6. Where a Permittee receives grant funding to conduct monitoring that achieves compliance with the Water Quality Monitoring section, the Permittee may request the Regional Water Board Executive Officer tailor compliance dates in this permit to synchronize with the monitoring program.

D8.2 Areas of Special Biological Significance Monitoring

All Permittees that discharge to an ASBS and are covered by an Ocean Plan exception shall comply with the monitoring requirements described in the terms, prohibitions, and special conditions in Attachment F.

D8.3 TMDL Monitoring

Permittees shall implement monitoring requirements assigned to them in Attachment G.

D8.4 303(d) Monitoring

1. All Permittees that discharge to waterbodies listed as impaired on the 303(d) list at the time of adoption of this Order (see the State Water Board's [Surface Water Quality Assessment web page](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) (https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) shall consult with the Regional Water Board within 1 year of the effective date of the permit to assess whether new or continued monitoring is necessary and if so, determine the monitoring study design and a monitoring implementation schedule. Permittees shall implement monitoring of 303(d) impaired water bodies as specified by the Regional Water Board Executive Officer. Permittees are encouraged to consider participation in regional monitoring efforts to satisfy monitoring requirements for 303(d) impaired water bodies.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a summary of baseline data collections and discussion of monitoring program results.
3. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a comparison of data collection to baseline data, and discussion of monitoring program results.
4. At a minimum, the monitoring reports shall include the following information:
 - a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
 - b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
 - c. Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable.
 - d. Results of data collection, including concentration detected, measurement units, and detection limits if applicable.
 - e. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.
 - f. Comparison to reference sites (if applicable), guidelines or targets
 - g. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.
 - h. Quantifiable discussion of program/study pollutant reduction effectiveness.

D8.5 Additional Monitoring

The State Water Board or the Regional Water Boards may order additional monitoring as necessary to demonstrate compliance with this Order per Water Code section 13383.

D8.6 Quality Assurance Project Plans

For all monitoring, the Permittee shall prepare, maintain, and implement a Quality Assurance Project Plan (QAPP). Monitoring samples shall be collected and analyzed according to the QAPP developed for the purpose of compliance with this Order. Quality assurance guidance is available on the [Surface Water Ambient Monitoring Program Quality Assurance web page](https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html) at https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html and the [Water Boards QA/QC website on Developing a QAPP](https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html): https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html.

D8.7 Monitoring Plans and Reports

1. Before conducting any new water quality monitoring or making changes to any existing water quality monitoring programs already in place, the Permittee shall complete and have available a monitoring plan that includes a summary of any available baseline data collections or monitoring program results. At a minimum, the monitoring plan shall include the following information:
 - a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
 - b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable.
 - c. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
 - d. Methods to be used for sample collection.
2. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a monitoring report that includes a comparison of data collected to baseline data, and a discussion of monitoring program results. At a minimum, the monitoring report shall include the following information:
 - a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
 - b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
 - c. Methods used for sample collection.

- d. Sample or data collection identification, collection date, and media if applicable.
- e. Results of data collection, including concentration detected, measurement units, and detection limits and laboratory qualifiers, if applicable.
- f. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.
- g. Comparison to reference sites (if applicable), guidelines or targets.
- h. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.
- i. Quantifiable discussion of program/study pollutant reduction effectiveness.

D8.8 Data Submittal

Water quality data shall be uploaded to SMARTS and shall conform to the California Environmental Data Exchange Network "[CEDEN Minimum Data Templates](http://ceden.org/)" format, available at <http://ceden.org/>.

D9. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT

D9.1 Program Effectiveness Assessment and Improvement Plan

1. The Permittee shall develop and implement a Program Effectiveness Assessment and Improvement Plan that quantifies annual and long-term effectiveness of the stormwater program.
2. Permittees that have a Program Effectiveness Assessment and Improvement Plan, or equivalent, approved by the applicable Regional Water Board, or that have a schedule approved by the applicable Regional Water Board to develop and implement such a Plan, shall update the approved Plan or schedule as necessary to comply with the section Program Effectiveness Assessment and Improvement Plan.
3. The Program Effectiveness Assessment and Improvement Plan shall include the following elements, at a minimum:
 - a. Quantification of stormwater runoff volumes, pollutant loads, and pollutant load reductions achieved by the entire program.

- b. Assessment of best management practice performance at achieving outcome levels
 - c. Assessment of pollutant source reductions achieved by individual best management practices.
 - d. MS4 discharge volumes and quality, including analysis of the data on a catchment scale. Where monitoring data is not available, rather than attempting to model multiple pollutant types, tools available for estimating runoff volumes and pollutant loads may use credible and effective proxies (e.g., Total Suspended Solids and Runoff Volume) to create a ranking of catchments in terms of relative risk to the receiving water.
 - e. Receiving water quality data, including analysis of the data
 - f. Identification of long-term effectiveness assessment, to be implemented beyond the permit term.
 - g. Identification of overall program goals including pollutants of concern and prioritized best management practices.
 - h. Documentation of the level of implementation of stormwater program elements
 - i. Identification and targeting of target audience(s)
 - j. The strategy the Permittee will use to assess the effectiveness of the program,
 - k. How the Permittee will use the information obtained through effectiveness assessment to modify individual best management practices and the entire program to increase short and long-term effectiveness.
4. The Program Effectiveness Assessment and Improvement Plan shall assess and generate results of best management practice and program effectiveness in terms of the following Outcome Levels:
- a. Stormwater program activities
 - b. Awareness
 - c. Behavior
 - d. Pollutant load reductions
 - e. MS4 discharge quality (where assessment is supported by MS4 discharge quality data)
 - f. Receiving water conditions

5. The Program Effectiveness Assessment and Improvement Plan shall identify assessment methods for privately owned best management practices.
6. The Program Effectiveness Assessment and Improvement Plan shall identify assessment methods the Permittee will use to quantitatively assess best management practice performance at reducing pollutant loads for all best management practices where pollutant load reductions can be quantified, using the one or more of the following or equivalent methods:
 - a. Direct quantitative measurement of pollutant load removal for best management practices that lend themselves to such measurement (e.g., measuring sediment collected through street-sweeping activities);
 - b. Science-based estimates of pollutant load removal for best management practices where direct measurement of pollutant removal is overly challenging (e.g., removal of heavy metals through a bioswale);
 - c. Direct quantitative measurement of behaviors that serve as proxies of pollutant removal or reduction (e.g., the percentage of construction sites demonstrated to be in compliance with permit conditions via inspections); or
 - d. Visual comparison (e.g., using photographs to compare the amount of trash in a creek between one year and the next).
7. The Program Effectiveness Assessment and Improvement Plan shall ask and answer the following Management Questions for prioritized best management practices for which answers to management questions can be based on quantitative data appropriate to the question being answered. Prioritized best management practices include best management practices implemented based on pollutants of concern. Where pollutants of concern are unidentified, prioritized best management practices are based on common urban pollutants (i.e., sediment, bacteria, trash, metals, nutrients, petroleum hydrocarbons).
 - a. Were prioritized best management practices or group of best management practices implemented in accordance with the permit requirements? The Permittee shall develop quantitative data using the following or equivalent methods:
 - 1) Confirmation – Documenting whether an activity or task has been completed, expressed as positive or negative outcome (i.e., yes or no)

- 2) Tabulation – Simple accounting expressed in absolute (e.g., number of people participating), or relative terms (e.g., percent increase in recycled household hazardous waste)
 - b. To what extent did prioritized best management practices or group of best management practices change the target audience’s behavior? The Permittee shall develop quantitative data using the following or equivalent methods:
 - 1) Surveys or interviews to discern knowledge, attitudes, awareness, behavior of specific population, etc.
 - 2) Interviews of site personnel to discern awareness and behavior.
 - 3) Inspections or site visits to directly observe or assess a practice.
 - c. To what extent did prioritized best management practices or group of best management practices reduce pollutant loads from their sources to the storm drain system?
8. The Program Effectiveness Assessment and Improvement Plan shall include water quality monitoring data, where available, to answer the following long-term management questions.
- a. To what extent did implementation of the best management practice, group of best management practices, or stormwater program enhance or change the urban runoff and discharge quality?
 - b. To what extent did implementation of the best management practice, group of best management practices, or stormwater program enhance or change receiving water quality?
 - c. Did exceedance(s) of water quality objectives or water quality standards persist notwithstanding implementation of the stormwater program?

D9.2 Stormwater Program Modifications

1. Within the fifth year of enrollment in this Order, the Permittee shall modify best management practices or the entire program to improve compliance with conditions of this Order and improve program effectiveness at reducing pollutant loads, achieving the maximum extent practicable standard, and protecting water quality. The Permittee shall identify and summarize best management practices and program modifications identified in priority program areas. Modifications shall include:

- a. Improving upon best management practices that are underperforming.
 - b. Continuing and expanding upon best management practices that proved to be effective, including identifying new best management practices or modifications to existing best management practices designed to increase pollutant load reductions;
 - c. Discontinuing best management practices that may no longer be productive and replacing with more effective best management practices; and
 - d. Shifting priorities to make more effective use of resources.
2. The Permittee shall use information gained through the program effectiveness assessment and MS4 discharge and receiving water monitoring to identify priority areas for program improvement.
 3. The Permittee shall consult with the applicable Regional Water Board in setting expectations for the scope, timing, and frequency of best management practice modifications.

D10. REPORTING PROGRAM

D10.1 Annual Report and Annual Reporting Requirements

1. By October 15 of each year, the Permittee shall use the State Water Board's SMARTS to submit a summary of the past year's activities for each program element and certify compliance with all requirements of this Order. If a Permittee is unable to certify compliance with a requirement, the Permittee shall submit in SMARTS the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.
2. Permittees shall complete and retain all Annual Report information on the previous fiscal year beginning July 1 and ending June 30. The Permittee shall retain documentation as necessary to support their Annual Report. The Permittee shall make this supporting information available during normal business hours, unless otherwise agreed to by the applicable Regional Water Board's Executive Officer.
3. The Permittee shall submit, when requested by the Executive Officer of the applicable Regional Water Board, a detailed written online Annual Report or in-person presentation of the Annual Report that addresses the activities

described in this attachment. The detailed Annual Report shall clearly refer to the requirements of this Order and describe in quantifiable terms the status of activities undertaken to comply with each requirement.

4. Permittees involved in regional programs may coordinate with the members to identify reporting responsibility. The one report submitted on behalf of Permittees involved in a regional program shall include a summary of the past year activities for each program element and certification of compliance with all requirements of this Order for each of the Permittees in the regional program.

D10.2 Program Management Reporting

D10.2.1 One-Time Per Permit Term Reporting Items

1. In Year 1 for Renewal Permittees and Year 2 for New Permittees, the Permittee shall submit a certification statement per the section Program Management and subsection Certification.
2. In Year 1 for renewal permittees and Year 2 for new permittees, the Permittee shall submit a copy of the enforcement response plan per the section Enforcement Response Plan and Enforcement Tracking.

D10.2.2 Annual Reporting Items

1. In Year 1, and annually thereafter, report the total number of actions taken within each category of enforcement (verbal warnings, written notices, escalated enforcement actions) and of those identify the following:
 - Number of corrective actions resolved within permitted time frame; and
 - Number of cleanup and abatement actions performed or contracted by the Permittee for discharges not generated by Permittee.
2. In Year 1, and annually thereafter, submit a list of chronic violators including identification information per the Legal Authority section item number 3.
3. In Year 1, and annually thereafter, submit a list of NPDES referrals including documentation information per the section Enforcement Response Plan and Enforcement Tracking, item number 3.5.e.
4. In Year 1, and annually thereafter if the Permittee has made any changes to their guidance document, the Permittee shall submit an updated guidance document per Section D1.4.

D10.3 Public Education and Outreach Reporting

D10.3.1 One-Time per Permit Term Reporting Items

1. In Year 1 report the compliance option selected per the Compliance Options section.
2. In Year 1 submit any necessary documentation for collaborative options per the Compliance Options section, item 2.
3. In Year 2 submit the public education strategy developed per the Development and Implementation section.
4. In Year 2 list the years that surveys will be conducted per the Development and Implementation section, item 3.

D10.3.2 Annual reporting items

In Year 2, and annually thereafter, submit a summary of all actions completed per the public education strategy and identify which are completed independently or by the group. At a minimum include:

1. List and description of public education and public participation and involvement activities conducted.
2. Total annual expenditure/cost-share to conduct the program.
3. Submit annual reports as required by the Community Based Social Marketing program if required by the Regional Board.

D10.4 Illicit Discharge Detection and Elimination Program Reporting

D10.4.1 One-time Per Permit Term Reporting Items

1. In Year 1 submit Illicit Discharge and Spill Response Plan per the Illicit Discharge and Spill Response section.
2. In Year 1 submit procedures for Illicit Discharge and Spill Response section, item number 2.
3. In Year 1 submit Dry Weather Flow Investigation and Sampling procedures per the Dry Weather Flow Investigation and Sampling section.

4. In Year 1 submit procedures for Potential Illicit Discharge Source/Facility Inspections per the Potential Illicit Discharge Source/Facility Inspections section, item number 1.
5. In Year 2 submit Illicit Discharge Source Areas map per the Illicit Discharge Source Areas section, item number 2.

D10.4.2 Annual Reporting Items

1. Beginning in Year 1, and annually thereafter, report number of complaints and notifications of illicit discharges and spills.
2. Beginning in Year 1, and annually thereafter, report findings of any dry weather flow investigations.
3. Beginning in Year 3, and annually thereafter, submit updated Illicit Discharge Source/Facility Inventory per the Potential Illicit Discharge Source/Facility Inventory section.
4. Beginning in Year 2, and annually thereafter, submit documentation of the past year's staff training events including dates and locations of the training and list of staff trained per the Illicit Discharge Detection and Elimination Staff Training. section.

D10.5 Pollution Prevention and Good Housekeeping Program Reporting

D10.5.1 One-time per Permit Term Reporting Items

1. In Year 1 submit the map of permittee owned and operated facilities per the Map of Permittee-Owned and Operated Facilities section.
2. In Year 2 submit a copy of the Inventory of Permittee-Owned or Operated Facilities including those identified as hotspots.
3. In Year 1 submit the documentation of municipal Operation and Maintenance activities and their corresponding best management practices as identified in the Permittee Operations and Maintenance Activities section.

D10.5.2 Annual Reporting Items

1. In Year 1, and annually as changes are made, submit the updated MS4 Map per the MS4 Map section.
2. In Year 2, and annually thereafter, submit an asset inventory and map per the Stormwater Asset Management Inventory section.

3. In Year 2, and annually thereafter if changes are made, submit the Routine Asset Maintenance Plan per the Asset Maintenance and Improvement Planning section, item number 1.
4. In Year 5, and annually thereafter if changes are made, submit the Long-Term Asset Operation and Improvement Plan per the Asset Maintenance and Improvement Planning section, item number 2.
5. In Year 1, and annually thereafter, report dates, content, and staff roster of staff training conducted per the Pollution Prevention and Good Housekeeping Staff Training section.
6. In Year 2, and annually thereafter, describe actions taken to comply with Provision E4.16. Reporting shall either include a statement on non-applicability or identify the BMPs implemented, and the numbers or frequency (as applicable) and locations of actions taken to reduce bacteria from domestic animal sources.

D10.6 Construction Site Stormwater Runoff Program Reporting

D10.6.1 One-time per permit term reporting items

In Year 1 upload the adopted ordinance that complies with this Order and errata sheet as necessary citing changes or added language.

D10.6.2 Annual reporting items

1. Inventory and Tracking
 - a. Submit an updated Regulated Construction Project inventory.
 - b. Number of Priority Regulated Construction Projects
 - c. Number of Non-Priority Regulated Construction Projects
2. Construction Site Inspection and Enforcement
 - a. Number of inspections performed
 - b. Number of inspections leading to enforcement within each category, as follows:
 - Written notices,
 - Escalated enforcement actions by category (citations/fines, plan review or other authorization withheld, stop work orders)

3. Permittee Construction Staff Training

List staff certified as Qualified Stormwater Pollution Prevention Plan Developer (QSD) and Qualified Stormwater Pollution Prevention Plan Practitioner (QSP).

4. Construction Site Operator Outreach and Education

Submit link to stormwater website containing materials used for outreach and education.

D10.7 Post-Construction Program Reporting

D10.7.1 One-time per permit term reporting items

1. In Year 2– New Permittees – Report/Verify mechanism for requiring these post-construction requirements (Upload a copy of the Legal Authority).
2. In Year 1, the Permittee shall identify if they will be using a self-certification or Permittee-led post-construction inspection and verification program.

D10.7.2 Annual reporting items

1. Small Projects
 - a. Number of projects that have received permits for construction, and/or
 - b. Number of projects that have received Discretionary/ministerial approval.

2. Regulated Projects

For each Regulated Project approved during the reporting period, the following information shall be reported electronically in tabular form:

- a. Project Name, Location
- b. Project Type (e.g., commercial, residential, mixed use, industrial, recreational)
- c. Project Watershed
- d. Total project site area and total area of land disturbed
- e. Total new impervious surface area and total replaced impervious surface area.
- f. Total pre-project impervious surface area and total post-project impervious surface area
- g. Discretionary or Ministerial project approval

- h. Status of project (i.e., initial application submittal, tentative and final approval, Post-Construction Stormwater Control Plan approved (y/n), construction commenced (y/n), construction completed).
 - i. Specific runoff reduction measures used.
 - j. Are peak flow controls required per section D6.7.5.3? (Y/N)
 - k. Where are Post-Construction stormwater control systems for the regulated project installed? Onsite, at a shared stormwater treatment facility, or at an offsite location?
 - l. Post-Construction Operation and Maintenance responsible party
 - m. Post-Construction Operation and Maintenance Plan provided (Y/N)?
 - n. Stormwater Retention and Treatment sizing criteria used (i.e., flow or volume-based)
 - o. Date of as built field verification
3. Operations and Maintenance:
- a. Total Number of sites with installed stormwater control measures.
 - b. Number of permittee-led inspections performed.
 - c. Number of Enforcement Actions taken and what those actions were, or number of inspections resulting in a) no further action and b) further action required.
 - d. Number of Self-Certification annual reports received.
4. Post-Construction Stormwater Control Measure Field Verification and Long-Term Maintenance Assessment
- a. Number of projects field verified by Permittee staff.
 - b. Number of projects field verified by a third party.

D10.8 Annual TMDL Compliance Report

The Permittee shall complete and report the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the permit with each Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

- 1. A description of best management practices implemented, including types, number, and locations; and
- 2. All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G; and

3. An assessment of the effectiveness of implemented best management practices in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
4. All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
5. Based on results of the effectiveness assessment and monitoring, a description of the additional best management practices that will be implemented to attain wasteload allocations within the TMDLs specified timeframes.

D10.9 Water Quality Monitoring Reporting

D10.9.1 One-Time per Permit Term Reporting Items

1. In Year 1, Permittees participating in a regional monitoring program shall upload a statement of commitment to that program per the requirements in the Regional Monitoring Programs section.
2. In Year 1, Permittees conducting monitoring shall submit a monitoring plan per the requirements in the Monitoring Plans and Reports section, item number 1.
3. In Year 5, Permittees conducting monitoring shall submit a monitoring report per the requirements in the Monitoring Plans and Reports section, item number 2.

D10.9.2 Annual Reporting Items

In Year 2, and annually thereafter, Permittees conducting monitoring shall submit a report of the results of monitoring activities for the reporting year.

D10.10 Program Effectiveness Assessment and Improvement Reporting

D10.10.1 One-Time per Permit Term Reporting Items

1. In Year 2, the Permittee shall submit the Program Effectiveness Assessment and Improvement Plan.
2. In Year 5, the Permittee shall submit an analysis of the effectiveness of modifications made at improving best management practice or program effectiveness.

3. In Year 5 the Permittee shall submit the list of best management practice or program modifications the Permittee will make for priority program areas as specified in the Stormwater Program Modifications section, item 1, including:
 - a. Identification of priority program areas; and
 - b. The schedule the Permittee will follow to complete identified modifications during the next permit term.

D10.10.2 Annual Reporting Items

1. Beginning in Year 3, and annually thereafter, the Permittee shall describe implementation of the Program Effectiveness Assessment and Improvement Plan that includes:
 - a. Summarized data obtained through quantitative best management practice performance assessments;
 - b. The short and long-term progress of the stormwater program; and
 - c. An analysis of the data to improve program effectiveness, to achieve the Maximum Extent Practicable standard, and protect water quality.

D10.11 Cost Reporting

In Year 1, and annually thereafter, the Permittee shall provide permit implementation cost data per the Cost Reporting format provided on the [statewide Small MS4 Order program website](https://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.html) (https://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.html).

ATTACHMENT E – PROVISIONS FOR NON-TRADITIONAL PERMITTEES

OVERVIEW

This attachment describes the requirements with which Non-Traditional MS4s, identified in Attachment A Table A6.3 must comply.

E1. PROGRAM MANAGEMENT

E1.1 Legal Authority – Renewal and New Permittees

Within 1 year of the effective date of this Order, Renewal Small MS4 Permittees shall review and revise as necessary relevant ordinances, policies, contractual provisions, tenant and lease agreements, base orders, conditions of lease, resolutions or other regulatory mechanisms, or adopt any new relevant ordinances, policies, or other regulatory mechanisms, to obtain legal authority, to the extent allowable under state or local law, to reduce or eliminate pollutants discharging from its storm drain system pursuant to the requirements of this Order. New Permittees shall do so within 2 years of the effective date of this Order or of the Permittee's effective date of designation, whichever is later. These ordinances, policies or other regulatory mechanisms shall include authority to:

1. Prohibit dumping or disposal of materials other than stormwater and authorized non-stormwater discharges into the Permittee's MS4;
2. Effectively prohibit non-stormwater discharges through the MS4. Detect and eliminate unauthorized non-stormwater discharges (illicit discharges) and illegal connections to the Permittee's MS4;
3. Respond to the discharge of spills into the MS4 or spills that may discharge into the MS4;
4. Require parties responsible for discharges in excess of incidental runoff from landscaped areas to implement actions necessary to prevent recurring discharges;
5. Require operators of construction sites, new development or redevelopment projects, and industrial and commercial facilities to minimize the discharge of pollutants to the MS4 through the installation, implementation, and maintenance of best management practices consistent with the current California Stormwater Quality Association Best Management Practice Handbooks or equivalent;
6. Require information necessary to assess compliance with this Order. The Permittee shall only require information in compliance with the Homeland

- Security Act or any other federal law that concerns security in the United States;
7. Review designs and proposals for new development and redevelopment to determine whether adequate best management practices will be installed, implemented, and maintained during construction and after final stabilization (post-construction);
 8. Enter private property for the purpose of inspecting, at reasonable times, any facilities, equipment, practices, or operations for active or potential stormwater discharges, or non-compliance with local ordinances/standards or requirements in this Order, as consistent with any applicable state and federal laws;
 9. Require responsible parties to promptly cease and desist discharging and cleanup and abate actual and threatened discharges, including the ability to:
 - a. Require the responsible parties to abate and clean-up their illicit discharge or spill no later than within 72 hours of notification and to expedite clean-up of high-risk illicit discharges or spills;
 - b. Require abatement within 30 days of notification of uncontrolled sources of pollutants that could pose an environmental threat;
 - c. Perform clean-up and abatement work and bill the responsible party, if necessary;
 - d. Order the cessation of activities until activities resulting in pollutant discharges are adequately addressed or abated;
 - e. Require a revised timeframe when all parties agree that clean-up activities cannot be completed within the required timeframe. The responsible party shall provide written notification to the appropriate Regional Water Board within five business days of the determination that the timeframe requires revision.
 10. Levy citations or administrative fines against responsible parties; and
 11. Require recovery and remediation costs from responsible parties.

E1.2 Certification

The Permittee's authorized signatory or duly authorized representative shall certify that the Permittee has and will maintain full legal authority to implement and enforce each of the requirements contained in this Order. Renewal Permittees shall submit a certification statement in their first annual report. New Permittees shall submit a certification statement in their second annual report.

The Permittee shall update its certification statement as necessary. The Permittee's certification statement shall include the following:

1. Identification of all departments within the Permittee's jurisdiction that conduct stormwater-related activities and their roles and responsibilities under this Order;
2. Citation of the Permittee's stormwater runoff related regulatory mechanisms, and identification of the requirements of this Order that correspond with each regulatory mechanism;
3. Identification of the local administrative and legal procedures available to mandate compliance with stormwater related ordinances and therefore with the conditions of this Order;
4. A description of the procedures to review, update, and implement stormwater-related ordinances and other regulatory mechanisms;
5. A statement that the Permittee will implement enforcement actions consistent with its adopted ordinances, relevant policies, contractual provisions, base orders, resolutions, or other regulatory mechanisms; and
6. A statement that the Permittee has adequate legal authority to comply with all Order requirements.

E1.3 NPDES Permit Referrals

For those construction projects or industrial facilities subject to the State Water Board Construction General Permit or Industrial General Permit, the Permittee shall:

1. Refer to [SMARTS](https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml) for current filing status of construction projects or industrial facilities
(<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>);
2. Refer non-filers (i.e., those facilities that cannot demonstrate that they obtained appropriate permit coverage) to the appropriate Regional Water Board within 30 days of the MS4's determination that permit coverage would be appropriate. Non-filers include the following:
 - a. Owners of regulated construction projects that have either not filed a Construction General Permit Notice of Intent or have not received a Construction General Permit erosivity waiver; and
 - b. Owner/operators of regulated industrial facilities that have not filed either an Industrial General Permit Notice of Intent, No Exposure Certification, or Notice of Non-Applicability.

3. Refer owner/operators with suspected ongoing violations of the Construction General Permit or Industrial General Permit known by the Permittee to the appropriate Regional Water Board. This referral must be made within 30 days of the MS4's determination that violations may be ongoing; and
4. In making the referrals, the Permittee shall include the following documentation:
 - a. Name and contact information of owner/operator;
 - b. Construction project or industrial facility location;
 - c. Estimated construction project size or industrial activity type (including Standard Industrial Classification Code or North American Industry Classification System Code, if known);
 - d. Records of communication with the owner/operator regarding filing requirements or ongoing violations; and
 - e. Any enforcement tracking documentation the Permittee has regarding the site or facility.

E1.4 Guidance Document Implementation

During the course of implementing the requirements of this Order, the Permittee shall reference the guidance document submitted with their Notice Of Intent and note any changes to the guidance document (for example, changes to the responsible implementing entity or changes to any locally-tailored best management practices carried over from a stormwater management plan developed under WQO 2003-0005). If changes are made, the Permittee shall submit the updated guidance document with the Annual Report.

E2. PUBLIC EDUCATION, OUTREACH, INVOLVEMENT, AND PARTICIPATION PROGRAM

E2.1 Definition of Public

The public for a Non-traditional MS4 Permittee is considered the following, if applicable:

1. Faculty
2. Inmates
3. Military personnel
4. Residents

5. Students
6. Staff
7. Visitors
8. Contractors
9. Tenants

E2.2 Implementation Options

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall select one public education program implementation option below:
 - a. Individually fulfill public education and public participation program requirements within their jurisdictional boundaries;
 - b. Contribute to a countywide stormwater program which conducts education and outreach on behalf of its members; or
 - c. Contribute to a regional outreach and education collaborative effort which shall include members completing the following:
 - 1) Define a uniform and consistent message(s);
 - 2) Determine the best methods to communicate the message(s); and
 - 3) Collaboratively apply what is learned through local jurisdiction groups.
2. Within 1 year of the beginning of its involvement or contribution, the Permittee shall obtain documentation, such as a written agreement, letter, or similar document, which confirms any involvement in or contribution to a countywide stormwater program or regional outreach and education collaborative effort within one year of the beginning of its involvement or contribution.

E2.3 Development and Implementation

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement a written public education strategy to attain the following goals related to stormwater pollution prevention and using stormwater as a resource:
 - a. Identify who is responsible for implementing specific tasks and create a schedule for task implementation;
 - b. Identify the Permittee's target audiences;

- c. Encourage public input (e.g., the opportunity for public comment, or public meetings) in the development of the public education program;
- d. Develop and disseminate educational materials (e.g., printed materials, billboard and mass transit advertisements, signage at select locations, stenciling at storm drain inlets, radio advertisements, television advertisements, and websites) for targeted audiences, including multiple languages as appropriate and that address the following topics as applicable:
 - 1) Local pollutants of concern and regional water quality issues;
 - 2) Benefits of water-efficient and stormwater- friendly landscaping (e.g., [Surfrider’s Ocean Friendly Garden Program](#) and the Department of Water Resources [Water Efficient Landscape Ordinance](#));
 - 3) Proper application of pesticides, herbicides, and fertilizers;
 - 4) Best management practices to reduce or eliminate illicit discharges from organized car washes (e.g., see the [Sacramento Stormwater Quality Partnership’s River Friendly Carwash Program](#)), mobile cleaning and pressure washing operations, and landscape irrigation; and
 - 5) Illicit discharge awareness and illicit discharge and spill reporting including promotion of the Permittee’s illicit discharge reporting hotline per the section Illicit Discharge and Spill Response Plan.
 - 6) Pet waste management, including the following:
 - i) Permittees shall maintain a web page on the Permittee’s website with information about proper pet waste management and the impact of improperly deposited waste on water quality and public health;
 - ii) Annual messaging to residents, reminding them to cleanup accumulated pet waste in their yards that could otherwise get washed into streams and beaches; and
 - iii) Messaging regarding pet waste management and associated impacts to the beaches and their catchments.
- e. As applicable within the Permittee’s jurisdiction, provide independent, parochial, and public schools with materials to educate school-age children about the effects of pollutants in stormwater discharge, the actions the Permittee is taking to protect/enhance stormwater quality, and the actions school-age children can do to help protect receiving

water quality in their local area. The Permittee is encouraged to use environmental and place-based experiential learning materials that are integrated into school curricula and school facility management. The Permittee may refer to [Sac Splash](http://www.sacsplash.org) (www.sacsplash.org) , the [Effie Yeaw Nature Center](http://www.sacnaturecenter.net) (www.sacnaturecenter.net), or [California's Education and Environment Initiative Curriculum](http://www.californiaeei.org) (http://www.californiaeei.org) for examples.

2. Construction and Post Construction Education – The Permittee shall develop and implement a strategy to educate project proponents, designers, and implementors of Regulated Construction and Post Construction projects. This shall include providing training to key stakeholders, including developers, contractors, construction site operators, and owner/builders, on the Permittee's post-construction requirements and permitting process. Training shall be provided early in the planning process and as appropriate to ensure understanding and proper implementation of measures.

E2.4 Public Participation Program

The Permittee shall involve the public in the development and implementation of its stormwater management program. At a minimum, within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall:

1. Create opportunities for the public to participate in the implementation of stormwater pollution prevention activities by sponsoring Permittee activities or supporting private activities.
2. Develop electronic, paper, or other communication techniques to ensure the public can easily find information about the Permittee's stormwater management program and opportunities to participate.

E3. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

The Permittee shall implement an Illicit Discharge Detection and Elimination Program to detect, investigate, and eliminate illicit discharges, including illegal dumping, into its storm drain system pursuant to the following requirements.

E3.1 Illicit Discharge and Spill Response Plan

Within 1 year of the effective date of this Order or the effective date of the Permittee's Designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and implement an Illicit Discharge and Spill Response Plan that, at a minimum, includes the following elements:

1. A publicly accessible method or methods to receive illicit discharge and spill notifications 24 hours a day (e.g., 24-hour hotline, internet complaint website). Anonymous reporting shall be accommodated by at least one reporting method. The Permittee is encouraged to accommodate electronic photo submittals;
2. An illicit discharge and spill complaint response process that provides the following:
 - a. Material characterization, source identification, containment, abatement, and recovery;
 - b. Ability to respond to a reported illicit discharge and conduct assessment and clean-up and abatement, 24-hours-a-day;
 - c. Receiving water impact assessment, including visual observation and water quality sampling, as appropriate.¹ The Permittee may reference indicator parameters and action level concentrations found in the Center for Watershed Protection's [Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assistance](https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf) (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);
 - d. Identification of responsible party, as applicable;
 - e. Response timelines for illicit discharges and spills shall be based upon threats to water quality and human health as follows:
 - 1) Illicit discharges and spills known or suspected of being either sanitary sewage, hazardous, or contaminated shall be investigated as soon as possible, but no later than 24 hours of the Permittee becoming aware of the discharge.
 - 2) The Permittee shall investigate any suspected illicit discharge or spill not meeting the above criteria within 72 hours of becoming aware of the suspected illicit discharge or spill.
 - 3) For investigations that require more than 72 hours, the Permittee shall identify the actions being taken to identify and locate the source of the suspected illicit discharge.
 - f. Roles and responsibilities of responding agencies for all times of day, including illicit discharge and spill response referral process (i.e., transfer

¹ These requirements may be satisfied through collaboration with neighboring Permittees, particularly where a discharge passes through a neighboring Permittee's MS4 prior to reaching receiving waters.

- of incident command) and notification to appropriate federal, state, and local agencies;
- g. A description of who, how, and what is used to clean-up and verify clean-up of illicit discharges and spills, for both hazardous and non-hazardous substances, including storm drain system cleaning;
3. An Illicit Discharge and Spill Enforcement Protocol that describes:
 - a. The various illicit discharge and spill levels, such as nuisance, immediate response, and emergency and hazardous material spills, and the associated response and enforcement actions for each;
 4. If applicable, any entities responsible for enforcement and when they take enforcement action. A protocol to track and query the following:
 - a. Details of illicit discharge and spill complaints and complaint response, including, but not limited to, time of notification, location of illicit discharge or spill, responsible party or parties, quantity and type of material, and whether actual or potential illicit discharges and spills are abated;
 - b. Responding parties;
 - c. Response time to illicit discharges and spills;
 - d. Inspector's notes and findings;
 - e. History of prior illicit discharges and spills; and
 - f. Follow-up actions, including but not limited to, re-inspections, receipt of compliance documentation, referrals to other divisions or agencies, cost recovery, fines, and other enforcement.

E3.2 Illicit Discharge Source Areas

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement or review, update as necessary, and then implement written procedures to proactively identify and abate the following sources of potential or actual illicit discharges:
 - a. Areas with a history of past illicit discharges;
 - b. Areas with a history of illegal dumping;
 - c. Areas with onsite sewage disposal systems;
 - d. Areas with infrastructure more likely to have illegal connections and a history of sanitary sewer overflows or cross-connections;

- e. Other areas that are likely to have illicit discharges.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary, a map or maps which may be in hard copy, electronic, or geographic information system (GIS) form and which shall include the following:
 - a. The MS4 Map developed pursuant to Order Provision E4.11; and
 - b. All areas identified as Illicit Discharge Source Areas.
 - c. Location of dry weather flows identified per the section Dry Weather Flow Investigation and Sampling.
 - d. The permit boundary.
3. The maps shall be reviewed annually at minimum and updated as necessary.

E3.3 Dry Weather Flow Investigation and Sampling

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary, written procedures to proactively identify, investigate, and eliminate (per section Illicit Discharge and Spill Response Plan) sources of dry weather flows from MS4 outfalls flowing or ponding more than 72 hours after the last rain event. Procedures shall include the following:
 - a. A process to investigate outfalls that are flowing or ponding more than 72 hours after the last rain event. The investigation shall include sampling when the Permittee cannot determine that the flow is an authorized non-stormwater discharger or eliminate the illicit discharge(s) causing the dry weather flow. Sampling shall include the indicators parameters and actions levels in Table E3.1 Indicator Parameters and Action Level Concentrations, below, and any other parameters of concern based on observation of the flow and other relevant information. The Permittee shall conduct a follow up investigation if action level concentrations are exceeded and the source of the illicit discharge has not been identified and eliminated. The Permittee may reference the Center for Watershed Protection's 2004 document titled "[Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments](#)" for appropriate field test methods (https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf);

Table E3.1 Indicator Parameters and Action Level Concentrations

Indicator Parameter	Action Level Concentration
Ammonia	Greater than or equal to 50 milligrams per liter
Color	Greater than or equal to 500 color units
Conductivity	Greater than or equal to 2,000 microsiemens per centimeter
Hardness	Less than or equal to 10 milligrams per liter as CaCO ₃ or greater than or equal to 2,000 milligrams per liter as CaCO ₃
pH	Less than or equal to 5 or greater than or equal to 9
Potassium	Greater than or equal to 20 milligrams per liter
Turbidity	Greater than or equal to 1,000 Nephelometric Turbidity Units

- b. Frequency and timeline of proposed outfall investigations;
 - c. Processes to abate the source of illicit dry weather discharge within time frames specified in the Illicit Discharge and Spill Response Plan;
 - d. A process to coordinate with field staff with institutional knowledge of chronic dry weather flows or that may observe dry weather flows, for example, during maintenance or inspections near or at outfalls;
 - e. Documentation of dry weather investigation findings, including dates of inspection and sampling, as well as sampling results.
2. Within 2 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall implement these Dry Weather Flow Investigation and Sampling procedures.

E3.4 Potential Illicit Discharge Source/Facility Inventory

1. Within 2 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall create or review and update an inventory of all industrial/commercial facilities/sources within the Permittee’s jurisdiction (regardless of ownership) that could discharge pollutants in stormwater to the MS4. The inventory shall include the following information for each source.

- a. Facility/source name;
 - b. Owner/operator contact information;
 - c. Address or location (geographical coordinates);
 - d. Nature of business or activity;
 - e. Standard Industrial Classification (SIC) codes (when known);
 - f. Physical location (geographical coordinates) of the Permittee's storm drain inlets that would receive potential discharges;
 - g. Name of receiving water;
 - h. Date of most recent inspection;
 - i. Issues identified and corrective actions required during inspection;
 - j. Date corrective actions were implemented; and
 - k. Notation whether the facility or operation has the following related to the Industrial General Permit: Enrollment (include Waste Discharge Identification number for enrolled facilities) or Notice of Termination if applicable.
2. At a minimum, the following industrial and commercial facilities/sources shall be included in the inventory:
- a. Vehicle salvage yards;
 - b. Metal and other recycled materials (e.g., plastic, paper, engine oil) collection;
 - c. Waste transfer;
 - d. Vehicle mechanical repair, maintenance, or cleaning;
 - e. Building trade central facilities or yards;
 - f. Corporation yards;
 - g. Landscape nurseries and greenhouses;
 - h. Building material retailers and storage;
 - i. Plastic manufacturers;
 - j. Retail and wholesale fueling;
 - k. Pet boarding, grooming, supply;
 - l. Restaurants;
 - m. Grocery stores;
 - n. Strip malls;
 - o. Other commercial businesses; and

- p. Other facilities determined by the Permittees or Regional Water Boards to have reasonable potential to contribute pollutants to stormwater runoff.
3. The Permittee shall determine if the facilities that may be required to be covered under the Industrial General Permit have done so. Upon discovering any facilities suspected of needing permit coverage but are not yet permitted, the Permittee shall notify the appropriate Regional Water Board per section Certification.
4. The Permittee shall update the inventory annually, including adding or removing facilities/sources. The update shall be accomplished through collection of new information obtained during inspections and contacts with commercial and industrial facility operators and owners, or through other readily available intra-agency informational databases (for example, the SMARTS database).

E3.5 Potential Illicit Discharge Source/Facility Inspections

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop written procedures to inspect and prioritize for inspection facilities/sources identified in the inventory created for section Potential Illicit Discharge Source/Facility Inventory. The inspections may be accomplished by incorporating stormwater elements into existing inspection programs.
2. Inspections shall be performed by appropriately trained staff and include at least the following activities:
 - a. Observations for appropriate best management practices to prevent stormwater runoff pollution or illicit discharge;
 - b. Observations for evidence of unauthorized discharges, illegal connections, and potential discharge of pollutants to stormwater;
 - c. Observations for noncompliance with Permittee ordinances and other local requirements;
 - d. Verification of coverage under the Industrial General Permit, if applicable; and
 - e. Documenting inspections and findings of inspections.
3. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall begin inspections of at least 20% of all facilities annually.

4. The Permittee shall inspect all inventoried facilities/sources at least once every five years.
5. The Permittee shall conduct follow-up inspections to verify corrective actions have been taken in accordance with the Illicit Discharge and Spill Response Plan.

E3.6 Illicit Discharge Detection and Elimination Staff Training

Within 2 years of the effective date of Order or the Permittee's effective date of designation, whichever is later, the Permittee shall implement a biennial training program for all Permittee staff who, as part of their normal job responsibilities, may be notified of, come into contact with, or otherwise observe a spill, illicit discharge or illegal connection to the storm drain system. The training program shall include, at a minimum:

1. Identification of an illicit discharge or illegal connection;
2. Lessons learned from historical spills and illicit discharges;
3. Proper procedures for reporting and responding to the spill, illicit discharge or illegal connection;
4. Follow-up training as needed to address changes in regulations, procedures, techniques, or staffing;
5. A biennial assessment of trained staff's knowledge of identifying, reporting, and responding to illicit discharges and revisions to the training as needed;
6. Training for new staff no later than six months after the start of employment; and
7. Contact information, including the procedure for reporting a spill or illicit discharge, shall be included in each of the Permittee's fleet vehicles that are used by field staff.

E4. POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR PERMITTEE OPERATIONS PROGRAM

The Permittee shall develop and implement a pollution prevention and good housekeeping for Permittee operations program to prevent or reduce the amount of pollutant runoff from Permittee operations. The Permittee shall implement appropriate best management practices for preventing or reducing the amount of stormwater pollution generated by Permittee operations.

E4.1 Inventory of Permittee-Owned and Operated Facilities

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary an inventory of Permittee-owned or operated facilities within their jurisdiction that are a threat to water quality. The inventory shall include all Permittee-owned or operated facilities within their jurisdiction that are potential sources of pollution in stormwater, including the following:
 - a. Airports;
 - b. Animal control facilities;
 - c. Chemical storage facilities;
 - d. Composting facilities;
 - e. Equipment storage and maintenance facilities (including landscape-related operations);
 - f. Fuel farms;
 - g. Fire stations and training facilities;
 - h. Hazardous waste disposal facilities;
 - i. Hazardous waste handling and transfer facilities;
 - j. Incinerators;
 - k. Landfills;
 - l. Materials storage yards;
 - m. Pesticide storage facilities;
 - n. Public parking lots;
 - o. Public golf courses;
 - p. Public swimming pools;
 - q. Public parks and recreation areas;
 - r. Public works yards;
 - s. Public marinas;
 - t. Recycling facilities;
 - u. Salt or de-icing storage facilities;
 - v. Solid waste handling and transfer facilities;
 - w. Transportation hubs (e.g., bus transfer stations);
 - x. Vehicle storage and maintenance areas;
 - y. Vehicle fueling facilities; and
 - z. Other (as directed by the appropriate Regional Water Board).
2. The inventory shall include the following for each facility:
 - a. Name and type of facility;
 - b. The facility manager's name, title, and contact information;

- c. Physical address (if applicable) and decimal latitude-longitude coordinates of facility;
- d. Date of last assessment or inspection;
- e. Industrial General Permit Waste Discharge Identification Number if applicable; and
- f. Indication of facilities identified as hotspots as required in the section Identification of Pollutant Hotspots.

E4.2 Map of Permittee-Owned and Operated Facilities

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall create or review and update as necessary a map or maps of the Permittee-owned or operated facilities identified in section Inventory of Permittee-Owned and Operated Facilities. The map(s) shall include the following:

1. The location of the facilities;
2. The stormwater drainage system serving the facilities, including drain inlets and outfalls;
3. The receiving waters to which these facilities discharge or identification of neighboring MS4 where a discharge passes through a neighboring MS4 prior to reaching receiving waters; and
4. Identification of hotspot facilities as required in the section Identification of Pollutant Hotspots.

E4.3 Identification of Pollutant Hotspots

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall conduct an initial inspection and assessment of all facilities in the inventory (created per section Inventory of Permittee-Owned and Operated Facilities) that were not already subject to an initial inspection under the previous Small MS4 permit. The inspections shall identify actual or potential pollutant discharge and Hotspot Facilities using the Center for Watershed Protection's guide on Urban Subwatershed and Site Reconnaissance, or equivalent. See Chapter 4 of the [Center for Watershed Protection's Unified Subwatershed and Site Reconnaissance: A User's Manual](#). Among the factors to be considered in identifying hotspot facilities are:
 - a. The type and volume of pollutants stored at the site;
 - b. The presence of improperly stored materials;

- c. Outdoor material handling and equipment maintenance activities
 - d. Disturbed or erodible soils;
 - e. Proximity to water bodies;
 - f. Poor housekeeping practices;
 - g. History of deficient pollution prevention best management practice implementation; and
 - h. History of illicit discharges.
2. Hotspots shall include, at a minimum, the following:
 - a. The Permittee's maintenance and corporation yards;
 - b. Vehicle storage, maintenance, washing areas;
 - c. Hazardous waste facilities;
 - d. Fuel storage or dispensing locations;
 - e. Airports;
 - f. Marinas; and
 - g. Any other facilities at which chemicals or other materials are likely to be discharged in stormwater.
 3. The Permittee shall document initial inspection and assessment procedures and results of site evaluation checklists used to conduct the initial inspection and assessment.
 4. The Permittee shall update the inventory of Permittee-owned or operated facilities annually. Permittees shall conduct the initial inspection and assessment for any facilities added to the inventory within one year.

E4.4 Hotspot Facility Stormwater Pollution Prevention Plan

1. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, for each hotspot facility identified per section Identification of Pollutant Hotspots, the Permittee shall develop or update as needed and implement written site-specific Stormwater Pollution Prevention Plans that identify existing stormwater best management practices installed, implemented, and maintained or identify additional needed best management practices to minimize the discharge of pollutants to protect water quality.

2. The Stormwater Pollution Prevention Plan(s) shall be kept on-site at each of the Permittee-owned or operated facilities' offices for which it was completed and shall be updated as necessary.
3. At a minimum the Stormwater Pollution Prevention Plan will include the following:
 - a. Facility address;
 - b. Owner/operator name and contact information;
 - c. Purpose of the document;
 - d. Key staff/contacts at the facility;
 - e. Site map with drainage and discharge locations identified;
 - f. Types and location of pollutant generating materials that are handled and stored at the facility that may be exposed to stormwater;
 - g. Facility stormwater best management practices;
 - h. Spill control and cleanup procedures including spill kit location;
 - i. Spill notification procedures (e.g., fire department, Certified Unified Program Agency);
 - j. Dates of scheduled quarterly and annual inspections per section Hotspot Facility Inspections, Visual Monitoring and Remedial Action; and
 - k. Inspection procedures and checklist for inspections conducted to ensure proper selection, implementation, and maintenance of all best management practices.
4. The Stormwater Pollution Prevention Plan requirements may be satisfied by existing documents such as the Hazardous Materials Business Plan, Spill Prevention Control and Countermeasures Plan, Industrial General Permit Stormwater Pollution Prevention Plan, or other equivalent document if all minimum requirements are included.

E4.5 Hotspot Facility Inspections, Visual Monitoring and Remedial Action

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall implement an inspection program of Permittee-owned or operated hotspot facilities per the requirements of this section. Renewal Permittees shall continue their existing hotspot facility inspection programs and review and make any necessary updates for compliance with this section within 3 years of the effective date of this Order. The inspections performed as a part of Stormwater Pollution Prevention Plan implementation for facilities covered under the Industrial

General Permit can be counted towards the facility inspection requirements in this section.

1. Inspection Frequency - The Permittee shall conduct quarterly best management practice implementation inspections and an annual Comprehensive Inspection.
2. Hotspot Facility Quarterly best management practice Implementation Inspections - The permittee shall conduct quarterly best management practice Implementation Inspections that include the following elements at minimum:
 - a. Observation of facility discharge locations for stormwater and non-stormwater discharges. Where discharges are observed, identify any observed problems (e.g., color, foam, sheen, turbidity) associated with pollutant sources or best management practices;
 - b. An inspection of all areas of pollutant generating activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the stormwater conveyance system;
 - c. Inspection of best management practices to identify implementation deficiencies and determine the need for maintenance or follow-up; and
 - d. Identification of any deficiencies and a schedule of follow-up actions that will be completed to correct deficiencies as soon as practicable.
3. Hotspot Facility Annual Comprehensive Inspections - Once per year concurrent with one of the quarterly inspections, conduct a review of the Stormwater Pollution Prevention Plan and effectiveness of all best management practices and their implementation to ensure pollutants are not being discharged.
4. The Permittee shall document all inspection dates, inspection results, and corrective actions. Facilities shall maintain a log of inspection reports with their procedures.

E4.6 Permittee Operations and Maintenance Activities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall assess its operation and maintenance activities for potential to discharge pollutants in stormwater. Assessments shall be conducted pursuant to the following requirements:

1. The Permittee shall conduct an assessment to identify operation and maintenance activities that have a potential to discharge pollutants in stormwater including but not limited to the following:

- a. Road and parking lot maintenance, including sidewalk repair, curb and gutter repair, pothole repair, pavement marking, sealing, and re-paving;
 - b. Bridge maintenance, including re-chipping, grinding, saw cutting, and painting;
 - c. Cold weather operations, including plowing, sanding, and application of deicing compounds and maintenance of snow disposal areas;
 - d. Right-of-way maintenance, including mowing, herbicide and pesticide application, and planting vegetation;
 - e. Material stockpiling (e.g., asphalt and concrete grindings, construction debris, soil);
 - f. Permittee-sponsored or sanctioned events such as large outdoor festivals, parades, or street fairs;
 - g. Green waste deposited in the street;
 - h. Graffiti removal; and
 - i. Hydrant flushing.
2. The Permittee shall identify all materials that could be discharged from each of these operation and maintenance activities, and the pollutant characteristics of the materials. Typical pollutants associated with these activities include metals, chlorides, hydrocarbons (e.g., benzene, toluene, ethylbenzene, and xylene), sediment, green waste, herbicide, pesticide, dried paint, and trash.
 3. The Permittee shall develop, implement, and document best management practices that, when applied during Permittee operation and maintenance activities, will reduce or eliminate pollutants in stormwater and non-stormwater discharges. The Permittee shall refer to the California Stormwater Quality Association Municipal Handbook or equivalent when developing the best management practices.
 4. The Permittee shall annually evaluate all best management practices implemented during operation and maintenance activities for effectiveness and revise as necessary.
 5. The Permittee shall maintain a procedure to dewater and dispose of materials extracted from storm drain system. This procedure shall ensure that water removed during the cleaning process and waste material will not reenter the MS4.

E4.7 Water Quality and Habitat Enhancement in Flood Management Facilities

Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a process or review, update, and implement existing processes as necessary to incorporate water quality and habitat enhancement features in the design of all new and rehabilitated flood management projects that discharge to the storm drain system.

E4.8 Landscape Design and Maintenance

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a landscape design and maintenance program or review, update, and implement existing programs to reduce the amount of water, pesticides, herbicides and fertilizers applied during Permittee operations and activities. The program shall address the following requirements:

1. The Permittee shall evaluate pesticides, herbicides and fertilizers used and application activities performed and identify pollution prevention and source control opportunities.
2. The Permittee shall implement landscape management measures that rely on non-chemical solutions that reduce the discharge of pesticides, herbicides and fertilizers including the following:
 - a. Create drought-resistant soils by amending soils with compost;
 - b. Create soil microbial community through the use of compost, compost tea, or inoculation;
 - c. Use native or climate appropriate plants to reduce the amount of water, pesticides, herbicides and fertilizers used;
 - d. Practice grass cycling on decorative turf landscapes to reduce water use and the need for fertilizers;
 - e. Keep grass clippings and leaves away from waterways and out of the street using mulching or composting;
 - f. Prevent application of pesticides, herbicides and fertilizers during irrigation or within 48 hours of predicted rainfall with greater than 50% probability as predicted by National Oceanic and Atmospheric Administration (NOAA);
 - g. Limit or replace herbicide and pesticide use (e.g., conducting manual weed and insect removal); and

- h. Reduce grass mowing to allow for greater pollutant removal and infiltration without jeopardizing public safety.
3. The Permittee shall implement educational activities for municipal applicators and their contractors as part of section Pollution Prevention and Good Housekeeping Staff Training.
4. The Permittee shall collect and properly dispose of unused pesticides, herbicides, and fertilizers.
5. The Permittee shall minimize irrigation run-off by using an evapotranspiration-based irrigation schedule and rain sensors.
6. The Permittee shall maintain an inventory of each pesticide, herbicide and fertilizer used during Permittee operations and activities in the permit area. The inventory shall include the following:
 - a. Name and type of each pesticide, herbicide and fertilizer; and
 - b. Approximate annual usage (e.g., gallons/year, cubic feet/year) of each pesticide, herbicide, and fertilizer.

E4.9 Stormwater Asset Management Inventory

The Permittee shall conduct stormwater asset management activities and establish intended levels of service for their MS4 consistent with this Order.

1. Asset Inventory Timeline
 - a. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop an Asset Inventory to include outfalls at a minimum. Renewal Permittees may review and update an existing outfall inventory to include the Asset Categories.
 - b. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall populate the Asset Inventory to include Asset Characteristics for all assets.
2. Asset Categories

The Permittee shall include in the Asset Inventory all hard assets critical to the MS4, including, but not limited to the following categories:

 - a. Storm Drain System – Including the following storm drain system assets:

- 1) Outfalls – Outfalls (or outlets) to receiving waters, the Permittee’s own or any neighboring MS4s, or to structural controls/best management practices;
 - 2) Stormwater Conveyance System – All segments of the MS4 including pipes, ditches, channels. Permittee may use a logical grouping system where feasible and estimates where necessary. The characteristics of conveyance features may be populated using information gained during routine field inspections;
 - 3) Inlets– Inlets to the MS4 (e.g., drop inlets, storm drain inlets, catch basins, curb face openings). The Permittee shall specify presence of internal storage (e.g., sump) and water quality device (e.g., screen, filter, separator, trash Full Capture Systems);
 - 4) Roads – All roadways that convey stormwater, including curb and gutter systems. The Permittee may rely on other roadway repair, maintenance tracking, and plans to complete the roads inventory, so long as the Permittees ensure the other tools and documents account for stormwater quality when informing and prioritizing roadway improvements.
- b. Structural Controls/best management practices
- 1) The Permittee may rely on its Post-Construction Inventory to assist populating the asset inventory;
 - 2) Water quality-based centralized and decentralized best management practices – Stormwater control measures that contribute to reductions of stormwater volume and pollutant loading; and
 - 3) Non-water quality-based centralized and decentralized best management practices – Stormwater control measures that have the primary function of flood control and provides minimal reduction of stormwater volume or pollutant loading.
- c. Equipment – All equipment and systems, individually valued over \$5,000 in replacement costs, used to convey stormwater, and maintain and improve the MS4.
3. Asset Characteristics
- The Asset Inventory shall include the following information for each asset (if applicable):
- a. Asset description, class, and category;

- b. Purchase, installation, and establishment date;
- c. Useful life when new;
- d. Type or material;
- e. Size and capacity.

E4.10 Stormwater Asset Management Level of Service

1. Condition and Effectiveness Assessments – permittee shall conduct the following condition and effectiveness assessments:
 - a. Condition Assessments – The permittee may implement a risk-based condition assessment, or comparable assessment method, to cost effectively and efficiently assess condition.
 - b. Effectiveness Assessments – Permittee shall assess each asset’s effectiveness at complying with this order based on factors such as design, capacity, quality, and intended function.
 - c. Schedule of Condition and Effectiveness Assessments
 - 1) When addressing the Storm Drain System assets, the Permittee may propose a less precise and simplified approach, potentially by grouping assets. The Permittee shall submit as part of the Asset Maintenance and Improvement Planning an approach to conduct assessments of public storm drain infrastructure. The approach may be based on current permittee scheduling of inspections and maintenance, or impromptu visits to assets allowing staff to gather desired information to populate the asset management database.
 - 2) Structural controls/best management practices – Within 3 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall assess the conditions of all public structural controls.
 - 3) Private structural controls/best management practices – Within 5 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, the Permittee shall assess all private structural controls/best management practices.
2. Valuation – By the end of Year 5, and thereafter as storm drain system components are inventoried, for each inventoried asset, identify the following (if applicable):
 - a. Principal cost (if applicable); and

- b. Lifecycle Costs – (1) Annual operations and maintenance costs and other ongoing expenses (2) Replacement costs.

E4.11 MS4 Map

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall maintain an MS4 Map (updated as changes occur, at a minimum annually) to include individual identifiers and descriptions, which include information such as name, type, and discharge information, where applicable, for the below system components:

1. Hard Assets – Refer to subsection Hard Assets under the section Stormwater Asset Management Inventory. The map shall identify which portions of the system are open channels (e.g., ditches, manmade channels) and other conveyance features (e.g., culverts, pipes, curb-and-gutter). Type of structural controls/best management practices shall be identified. The map shall also identify flow direction;
2. Ephemeral, intermittent, and perennial waterbodies including, but not limited to, the following:
 - a. National Hydrography Dataset Flow Line (U.S. EPA and United States Geological Survey), linear features of types: stream/river, canal/ditch, pipeline, artificial path, coastline, and connector;
 - b. National Hydrography Dataset Water Body (U.S. EPA and United States Geological Survey), polygonal features of types: playa, ice mass, lake, pond, reservoir, swamp, marsh, and estuary;
 - c. [National Wetlands Inventory](http://www.fws.gov/wetlands/) (a national program established by the United States Fish and Wildlife Service to map wetlands, available at <http://www.fws.gov/wetlands/>); and
 - d. Relevant environmental documents (e.g., developed per California Environmental Quality Act, National Environmental Policy Act) that include waterbody delineations reflecting current conditions.
3. Drainage Catchments – Delineated drainage areas defined by both natural topographic divides and anthropogenic features such as constructed portions of the MS4, that reasonably represent areas that convey stormwater runoff to outlets/outfalls or to other drainage areas; and
4. Other Components – Identify other critical components (e.g., cleanouts, pump stations, diversion structures, trash capture devices, infiltration galleries) of system influencing maintenance capacity and conveyance.

E4.12 Asset Maintenance and Improvement Planning

1. Routine Asset Maintenance Plan - Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement a Routine Asset Maintenance Plan to ensure all assets are properly functioning and do not present risks to water quality. At a minimum the plan shall include the following:
 - a. Assigned frequency of inspection and maintenance of assets within the inventory based on a prioritization process that assigns highest priority assets more frequent inspections. Lowest priority assets may not require inspection and maintenance. Priority shall be based on potential threat to water quality, operating capacity (e.g., accumulation of sediment, trash, and other pollutants, or condition assessment). Areas/assets with high potential threat to water quality or high pollutant loading rates relative to treatment capacity are required to be assigned high priority.
 - b. At a minimum, inspection and maintenance of all catch basins and Permittee owned structural controls/best management practices are required to be completed annually prior to the rainy season.
 - c. Devices installed pursuant to Attachment H – Trash Implementation Requirements, shall be maintained to remain in compliance with those provisions. Permittee shall document inspections and maintenance conducted per the Routine Asset Maintenance Plan. Documentation of inspection and maintenance may be stored within databases required by other provisions (e.g., post-construction provisions, trash provisions) or required inspections and maintenance of those provisions may be documented within the asset management database, if applicable.
2. A Long-term Asset Operation and Improvement Plan – Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop, implement, and update annually thereafter as additional storm drain system components are inventoried, a Long-term Asset Operation and Improvement Plan that evaluates data obtained through condition assessments performed per section Stormwater Asset Management Level of Service to inform the following based on a 20-year timeframe which includes the following:
 - a. List of known infrastructure repairs or improvements needed (e.g., deteriorated infrastructure, routinely flooded areas).
 - b. Deferred maintenance needs (e.g., structural controls with deferred maintenance).

- c. Prioritization and Schedule – Develop a schedule, informed by a prioritization process, based on risk of failure and useful life of the asset outlining the following:
 - 1) Maintenance of inventoried assets;
 - 2) Rehabilitation and replacement of inventoried assets; and
 - 3) Installation, generation, and initiation of new assets.
 - d. Forecasted costs – Projected costs necessary to implement the Long-term Asset Operation and Improvement Plan to meet the required level of service, for the next 20 years.
 - e. 20-year Financial Strategy – Compare forecasted costs with available funding sources and identify the financial strategy for sustained funding of asset management and development to sustain service and performance.
3. Labeling storm drain inlets
- a. Within 2 years of the effective date of this Order or the Permittee’s effective date of designation, whichever is later, New Permittees shall ensure each storm drain inlet in high foot traffic areas includes a legible stormwater awareness message (e.g., a label, stencil, marker, or pre-cast message such as “drains to the creek” or “only rain in the drain”).
 - b. After storm drain inlets have been labeled, inlets with illegible or missing labels shall be recorded and relabeled within one month of inspection.

E4.13 Alternative and Existing Asset Management Programs

A Permittee may propose, for Regional Water Board Executive Officer approval, an alternative or existing approach for stormwater asset management and planning, provided the Permittee demonstrates the approach includes elements equivalent to the requirements in this Order.

E4.14 Pollution Prevention and Good Housekeeping Staff Training

The Permittee shall train all staff involved in implementing pollution prevention and good housekeeping practices as specified in this section. The training shall occur at least once every two years and include at a minimum:

- 1. A general stormwater education component;
- 2. Training on the applicable permit requirements including clear guidance on appropriate stormwater best management practices to use at municipal facilities and during typical operation and maintenance activities;

3. Follow-up training as needed to address changes in procedures, techniques, or staffing;
4. A biennial assessment of trained staff's knowledge of pollution prevention and good housekeeping and revisions to the training as needed; and
5. Training for new staff who will be involved in implementing pollution prevention and good housekeeping practices no later than three months after the start of employment.

E4.15 Third Party Activities

The Permittee shall require that any contractors hired by the Permittee to perform operation and maintenance activities shall be contractually required to comply with all the stormwater best management practices, good housekeeping practices, and standard operating procedures described above. The Permittee shall provide oversight of contractor activities to ensure that contractors are using appropriate best management practices, good housekeeping practices and following standard operating procedures.

E4.16 Pet Waste Pollution Prevention and Control

The Permittee shall implement pet waste pollution prevention and control measures to prevent pathogen discharges to receiving waters.

1. Permittees without significant outdoor pet populations or pet waste management issues may make a statement to that effect. Part 2 of this section is not required for those permittees.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall identify and create a pet waste hotspot inventory. The inventory shall include locations owned and operated by the Permittee with high potential for dog or other pet waste accumulation.
 - a. The pet waste hotspot inventory shall include the following information for each site:
 - 1) Site name (park name, trail name, or other geographic identifier);
 - 2) Description of BMPs currently employed at the site (signage, waste bag dispensers, trash bins, etc.) and the maintenance schedule for those BMPs;
 - 3) Identification of sites with improper pet waste disposal determined by at least one site visit by Permittee staff. The site visit may be conducted as part of other routine maintenance or inspections.

- 4) Date and findings of minimum single site visit.
- 5) Description of any proposed BMPs or increased maintenance necessary to prevent improper disposal of pet waste at the site.
- b. Locations to be documented in the pet waste hotspot inventory include but are not limited to the following:
 - 1) Dog parks
 - 2) Recreational areas where dogs are allowed such as trails.
- c. The inventory shall be reviewed annually at a minimum.

E5. CONSTRUCTION SITE STORMWATER RUNOFF PROGRAM

The Permittee shall develop, implement, and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters which includes the following elements:

E5.1 Construction Site Stormwater Runoff Control Ordinance

1. Applicability – Regulated Construction Projects are defined as follows:
 - a. All land disturbances required to be enrolled in the Construction General Permit;
 - b. All land disturbances less than 1 acre;
 - c. All land disturbances over 1 acre that have received an erosivity waiver; and
 - d. Other construction projects and activities the Permittee or Regional Water Board may elect to include as Regulated Construction Projects, due to proximity to receiving waters, threat to water quality, or other factors.
2. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement contract language, and in-house policies/procedures (e.g. ordinances, contractual provisions, base orders, resolutions, condition of lease provisions, tenant improvement agreements, specifications or other regulatory mechanisms) to ensure the Permittee's in-house construction operators and outside contractors implement the following pollution prevention measures, at a minimum, for all Regulated Construction Projects:
 - a. Erosion controls;

- b. Sediment controls;
- c. Soil stabilization;
- d. Dewatering pollution controls;
- e. Source controls;
- f. Run-on and runoff control;
- g. Seasonal grading restrictions;
- h. Protection of existing riparian and wetland vegetation and habitat;
- i. Prevention of non-stormwater discharges;
- j. Final site stabilization;
- k. Prevention of pollutant discharges into post-construction stormwater control measures during all stages of construction (e.g., bioretention basins, infiltration chambers); and
- l. Other pollution prevention measures as appropriate.

E5.2 Construction Site Inventory and Tracking

1. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or review and update as necessary a construction site inventory. The Permittee shall maintain the inventory to track the following elements for each Regulated Construction Project having received a grading or building permit or similar discretionary approval. For Regulated Construction Projects subject to the Construction General Permit the Permittee may obtain the inventory information from the SMARTS database. The inventory shall include the following:
 - a. Relevant contact information for each project including name, address, phone, email, for the landowner and primary contractor/developer;
 - b. Project location (address (if applicable) and geographic coordinates);
 - c. Area of land disturbance;
 - d. Area of pre- and post-project impervious surfaces;
 - e. Project receiving waters;
 - f. Identification of downstream waterbodies that are impaired by sediment-related pollutants or 303(d)listed for sediment or turbidity;
 - g. Current construction phase listing each activity that applies (e.g., permitted not initiated, staging, clearing and grubbing, mass grading, utilities, streets, vertical, exterior finishing, interior finishing);
 - h. Construction General Permit Risk Level

- i. Site priority based on subsection Construction Site Inspection under section Construction Site Inspection and Enforcement;
- j. Required inspection frequency;
- k. Date of last completed inspection;
- l. Date of approval for construction (e.g., grading or building permit);
- m. Unresolved follow-up enforcement actions and date of violation;
- n. The project start and anticipated completion dates; and
- o. The date the Permittee approved the site-specific construction stormwater pollution control plan in accordance with this Provision.

E5.3 Construction Plan Review and Approval Procedures

1. The Permittee shall verify prior to initiation of construction, that all Regulated Construction Projects have site-specific construction stormwater pollution control plan that includes the following at a minimum:
 - a. All measures necessary to be consistent with the Permittees construction site stormwater pollution prevention ordinance(s).
 - b. Site-specific best management practice information, including supporting design calculations as appropriate, to ensure best management practices are properly sized, located, and effective.
 - c. The Permittee shall ensure the Applicant uses appropriate site-specific construction site best management practices based on the CASQA Construction / New Development and Redevelopment Handbook or equivalent or other best management practices approved by the Permittee. The Practices shall include the following:
 - 6) Erosion Control best management practices;
 - 7) Sediment Control best management practices;
 - 8) Tracking Control best management practices;
 - 9) Run-on and Run-off Control best management practices;
 - 10) Non-Stormwater Management best management practices;
 - d. A list of state and federal permits that impose conditions on the land-disturbing elements of the Regulated Construction Project, including, but not limited to, the Construction General Permit, 401 Water Quality Certification, U.S. Army Corps 404 permit, and California Department of Fish and Wildlife 1600 Agreement.

2. Verification shall be conducted by the Permittee or third-party plan reviewers that are adequately trained, either in-house or through contracted consultants, or CASQA training materials to:
 - a. Perform technical review of local erosion and sediment control plans,
 - b. Evaluate and identify proper control measure selection, installation, implementation, and maintenance,
 - c. Implement administrative requirements such as inspection reporting/tracking,
 - d. Implement Permittee's Illicit Discharge and Spill Response Plan
3. The Permittee shall require site-specific construction stormwater pollution control plans be kept on site and readily accessible to contractors and inspectors.
4. The Permittee shall have a procedure to ensure all dewatering activities to the MS4 are authorized by the Regional or State Board prior to start of dewatering.
5. The Permittee shall review and approve revisions to previously approved construction stormwater pollution control plans and shall ensure they are consistent with the Permittee's construction stormwater contract language and in house policies and procedures.
6. The Stormwater Pollution Prevention Plan developed pursuant to the Construction General Permit may substitute for the site-specific construction stormwater pollution control plan for projects where a Stormwater Pollution Prevention Plan is developed. The Permittee is responsible for reviewing applicable portions of the Stormwater Pollution Prevention Plan for compliance with the Permittee's contract language and in house policies and procedures and this Order.

E5.4 Construction Site Inspection and Enforcement

1. Construction Inspection Procedures

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop and implement procedures for inspecting construction projects to verify compliance with the Permittee's construction site stormwater contract language and in-house policies and procedures and conduct enforcement if necessary. Construction site inspections shall include assessment of compliance with the Permittee's construction site stormwater runoff contract

language and in-house policies and procedures, and other applicable ordinances.

2. Construction Site Inspection

The Permittee shall inspect all Regulated Construction Projects and enforce the Permittee's stormwater pollution prevention ordinance(s). The inspection procedures shall be consistent with the Construction Program Requirements of this Order.

a. Inspections shall verify at a minimum:

- 1) Proper installation of best management practices consistent with Permittee approved construction site stormwater pollution control plan;
- 2) Adequate best management practice maintenance;
- 3) Best management practice effectiveness; and
- 4) Pollutants of concern are not discharging or have potential to discharge from the Regulated Construction Project.

b. The Permittee shall conduct annual inspections of all non-priority Regulated Construction Projects and verify they are prepared for rain events.

c. At a minimum, the Permittee shall inspect all Regulated Construction Projects at the following intervals:

- 1) At least once prior to the first forecast rain event with potential to produce runoff after July 1 of each year;
- 2) At least once during the rainy season from October 1 through April 30.

d. The Permittee may temporarily reduce inspection frequency for inactive Regulated Construction Projects that the Permittee has verified are stabilized and do not present a threat to water quality.

e. At the conclusion of a Regulated Construction Project, the Permittee shall inspect to ensure that all disturbed areas have been stabilized and that all temporary erosion and sediment control measures have been removed.

f. The Permittee may leverage existing inspections and personnel to conduct Regulated Construction Project inspections and enforcement.

3. Alternative Construction Site Oversight

The Permittee may propose, for Regional Water Board Executive Officer

approval, an alternative approach for construction site oversight, provided the Permittee demonstrates the approach will be equally effective at reducing the discharge of pollutants from construction sites to the maximum extent practicable.

E5.5 Permittee Construction Staff Training

1. The Permittee shall ensure that all Permittee and Third-Party Plan Reviewers, Permitting, Stormwater Inspectors, and Code Enforcement staff, implementing the construction site stormwater runoff control program are adequately trained, either in-house or through contracted consultants, to:
 - a. Perform technical review of local site-specific construction stormwater pollution control plan,
 - b. Evaluate and identify proper control measure selection, installation, implementation, and maintenance,
 - c. Implement administrative requirements such as inspection reporting/tracking,
2. All staff conducting Regulated Construction Project inspections shall be trained to identify pollutants of concern and verify they are not discharging or have potential to discharge from the Regulated Construction Project.
3. The Permittee shall maintain at least one designated staff member certified pursuant to a State Water Board sponsored program for the following roles:
 - a. A Qualified Stormwater Pollution Prevention Plan Developer (QSD) to supervise plan review; and
 - b. A Qualified Stormwater Pollution Prevention Plan Practitioner (QSP) to supervise inspection operations.

E6 POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

E6.1 New and Existing Permittee Program Requirements

1. Within 1 year of the effective date of this Order, Renewal Permittees shall review previously adopted or referenced performance criteria for Post-Construction stormwater controls, such as biotreatment and media filters to ensure they are still applicable or adopt or reference new criteria.
2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall adopt or reference appropriate performance criteria for Post-Construction stormwater controls such as biotreatment and media filters.

E6.2 Effective Date for Applicability

1. All public and private projects under the Permittee's jurisdiction that meet any of the below approval milestones shall comply with the post-construction requirements of this Order.
 - a. Projects that have not yet received project-specific discretionary approval.
 - b. Projects that have received discretionary approval but that have been subsequently modified to include additional impervious area through a process such as a tentative map extension.
 - c. Projects that do not require discretionary approval and that have not received ministerial approval.
 - d. Public projects that require no ministerial or discretionary approval and have not filed a CEQA Notice of Determination or Notice of Exemption.
2. Effective Date of Post-Construction Requirements
 - a. New Permittees

Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall require the Post-Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.
 - b. Renewal Permittees

Within 1 year of the effective date of this Order, Renewal Permittees shall require the Post-Construction Stormwater Management Program be applied on applicable Regulated Projects and Small Projects.

E6.3 Enforceable Mechanisms

Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall develop or modify enforceable mechanisms that will effectively implement the requirements in the Post-Construction Stormwater Management Program and may include municipal codes, regulations, standards, and specifications. The Permittee shall:

1. Conduct an analysis of all applicable codes, regulations, standards, and specifications to identify modifications or additions necessary to fill gaps and remove impediments to effective implementation of project-scale development requirements.

2. Approve new or modified enforceable mechanisms that effectively resolve regulatory conflicts and implement the requirements in the Post-Construction Stormwater Management Program if necessary.
3. Apply new or modified enforceable mechanisms to all applicable new and redevelopment projects.
4. Develop and make available specific guidance for permittee's plan review process and low impact development Permanent Stormwater Control Measures and best management practice design.
5. Develop a policy and mechanism to coordinate Post-Construction Stormwater Management Program requirements are met for all approving and designing agencies involved during the planning and design stages for a project. The policy must include a visual flow chart that clearly identifies the project planning and design phase and mechanism by which each approving and designing agency is provided the Post-Construction Stormwater Management Program requirements for each project.

E6.4 Small Projects

1. Small Projects include all projects that create and/or replace (including projects with no net increase in impervious footprint) 2,500 square feet or more but less than 5,000 square feet of impervious surface and not part of a larger plan of development.
2. Small projects do not include linear utility projects and road projects.
3. The Permittee shall require Small Projects to maximize opportunities to implement runoff reduction measures but require implementation of no less than one runoff reduction measure listed in subsection Runoff Reduction Measures under section Low Impact Development Design Standards.

E6.5 Regulated Projects

1. Regulated Projects are those projects that fit into the Regulated Project Categories, listed below.
2. Regulated Projects include projects on public or private land that fall under the jurisdictional authority, planning authority, or building authority of the Permittee.
3. The Permittees shall require Regulated Projects to implement low impact development design standards per the Low Impact Development Design Standards section.

4. The Permittee shall develop and implement an equivalent process for reviewing and implementing these requirements for both public and private development projects if applicable.

E6.6 Regulated Project Categories

1. New Development Projects

- a. New development is any land-disturbing activity that results in the creation or addition of exterior impervious surface area on a site on which no past development has occurred.
- b. Regulated Projects include new private and public development projects that create 5,000 square feet or more of impervious surface (collectively over the entire project site). Public infrastructure improvements associated with private development projects shall be considered part of the overall private development project.

2. Redevelopment Projects

- a. Redevelopment is any land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred.
- b. Regulated Projects include private and public redevelopment projects that create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site).
- c. Specific exclusions to this category are:
 - 1) Interior remodels; and
 - 2) Routine maintenance or repair such as:
 - a) Roof or exterior wall surface replacement; and
 - b) Pavement resurfacing within the existing footprint that does not expose the underlying soil or pervious subgrade.
 - c) Full depth reclamation that does not change the pre-project drainage patterns and is not associated with non-excluded new or redevelopment projects.
- d. Partial Site Redevelopment
 - 1) Where a redevelopment project results in an increase of 50 percent or more of the impervious surface of a previously existing development, the entire project, consisting of all existing, new, and replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures) and

shall be designed and sized to treat stormwater runoff from the entire redevelopment project).

- 2) Where a redevelopment project results in an increase of less than 50 percent of the impervious surface of a previously existing development, only the new and replaced impervious surface of the project shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the new and replaced impervious surface of the project).

3. Road and Linear Utility Projects

Regulated Projects include any of the following types of road projects and linear utility projects that create and/or replace 5,000 square feet or more of impervious surface and that fall under the jurisdictional authority, planning authority, or building authority of a Permittee:

a. New development and redevelopment of streets or roads.

- 1) Where the addition of new impervious surface results in an alteration of 50 percent or more of the impervious surface of an existing street or road, the entire project, consisting of all existing, new, and replaced impervious surfaces, shall be included in the stormwater control design (i.e., Permanent Stormwater Control Measures shall be designed and sized to treat stormwater runoff from the entire street or road that had additional traffic lanes added).
- 2) Where the addition of new impervious surface results in an alteration of less than 50 percent of the impervious surface of an existing street or road, only the new and replaced impervious surface of the project shall be included in the stormwater control design (i.e., Stormwater Control Measures shall be designed and sized to treat stormwater runoff from only the new traffic lanes).

b. Linear utility projects that create and/or replace more than 5,000 square feet of contiguous impervious surface.

c. The following road and linear utility projects are excluded from the above requirements and are not considered new development or redevelopment projects unless they are associated with non-excluded new or redevelopment projects:

- 1) Trenching, excavation, and resurfacing associated with linear utility projects;

- 2) Full-depth reclamation that does not change pre-project drainage patterns;
- d. The following road and linear utility projects are excluded from the above requirements and are not considered new or redevelopment projects:
 - 1) Pavement grinding and resurfacing of existing roadways and parking lots that does not expose the underlying soil or pervious subgrade; and
 - 2) Routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway.

E6.7 Source Control Measures

Regulated Projects with pollutant-generating activities and sources shall be required to implement standard permanent and operation source control measures as applicable.

Measures for the following pollutant generating activities and sources shall be designed consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment or equivalent manual:

1. Accidental spills or leaks
2. Interior floor drains
3. Parking/storage areas and maintenance
4. Indoor and structural pest control
5. Landscape/outdoor pesticide use
6. Pools, spas, ponds, decorative fountains, and other water features
7. Restaurants, grocery stores, and other food service operations
8. Refuse areas
9. Industrial processes
10. Outdoor storage of equipment or materials
11. Vehicle and equipment cleaning
12. Vehicle and equipment repair and maintenance
13. Fuel dispensing areas
14. Loading docks
15. Fire sprinkler test water

16. Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources
17. Unauthorized non-storm water discharges
18. Building and grounds maintenance

E6.8 Low Impact Development Design Standards

The Permittee shall adopt and implement requirements and standards to ensure design and construction of Regulated Projects that achieve low impact development design standards to reduce runoff, treat stormwater, and provide baseline hydromodification management to meet the Criteria for Stormwater Treatment, Retention and Peak Flow Control. The Permittee shall only approve projects that meet the following criteria:

E6.8.1 Site Assessment Methods

At the earliest planning stages, the Permittee shall require Regulated Projects to assess and evaluate how site conditions, such as soils, vegetation, and flow paths will influence the placement of buildings and paved surfaces. The evaluation will be used to meet the goals of capturing and treating runoff and assuring these goals are incorporated into the project design. The Permittee may adopt or reference an existing low impact development site assessment methodology.

The Permittee shall require Regulated Projects to consider optimizing the site layout through the following methods:

- a. Define the development envelope and protected areas, identifying areas that are most suitable for development and areas to be left undisturbed.
- b. Concentrate development on portions of the site with less permeable soils and preserve areas that can promote infiltration.
- c. Limit overall impervious coverage of the site.
- d. Employ development setbacks from creeks, wetlands, and riparian habitats.
- e. Preserve as many healthy, vigorous, and mature trees as feasible.
- f. Conform the site layout along natural landforms.
- g. Avoid excessive grading and disturbance of vegetation and soils.
- h. Replicate the site's natural drainage patterns.

E6.8.2 *Drainage Management Areas*

A Drainage Management Area is a watershed area draining to a single discharge location or Permanent Stormwater Control Measure. The Permittee shall require each Regulated Project to provide a map or diagram delineating the pre- and post-development discrete Drainage Management Areas within the developed portions of the project site and demonstrate how stormwater from each Drainage Management Area will be managed to meet the Low Impact Development Design standards.

Permanent Stormwater Control Measures shall be sized to manage the runoff from the entire Drainage Management Area, including all new, replaced, and existing areas draining to the Permanent Stormwater Control Measure.

E6.8.3 *Permanent Stormwater Control Measure Selection and Sizing*

a. Target Pollutants of Concern

Permanent Stormwater Control Measures shall be selected and designed to treat the following pollutants of concern: dissolved and particulate metals, pathogens, nutrients, sediment, hydrocarbons, trash, and fine sediment. This requirement may be met by directing flow and debris into a Permanent Stormwater Control Measure or multiple Permanent Stormwater Control Measures that control these pollutants. Other site-specific, TMDL, and 303(d)-listed pollutants shall also be identified and treated to the maximum extent practicable.

b. Permanent Stormwater Control Measure Prioritization

All projects subject to low impact development requirements shall identify and maximize implementation opportunities for each of the following Low Impact Development measures, in the following order of priority:

1. Site Assessment Methods
2. Runoff Reduction Measures
3. Bioretention Stormwater Control Measures
4. Flow-Through, Vegetation-Based Stormwater Control Measures
5. Subsurface Infiltration
6. Flow-Through, Non-Vegetated Stormwater Control Measures

c. Stormwater Control Measures for High-Risk Areas

Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide additional treatment to address pollutants of concern unless these high-risk areas are not hydraulically connected to stormwater runoff and Permanent Stormwater Control Measures.

E6.8.4 Runoff Reduction Measures

Runoff Reduction Measures are Permanent Stormwater Control Measures that reduce the amount of stormwater runoff from a site and reduce area required for control by bioretention, Flow-Through, and subsurface infiltration Stormwater Control Measures. Runoff reduction measures shall be described in the Post-Construction Stormwater Control Plan and preserved and maintained to retain their stormwater control functions. Below are descriptions of the runoff reduction measures that may be used, design requirements, and crediting towards compliance with post-construction requirements.

Runoff reduction measures include Impervious Connection to Vegetated Areas, Interceptor Trees, Pervious Pavement, and Green Roofs, as described in the following sections.

E6.8.4.1 Impervious Connection to Vegetated Areas

1. Description - Impervious Connection to Vegetated Areas

This Impervious Connection to Vegetated Areas site design measure utilizes properly configured vegetated areas that intercept, slow, and allow infiltration of stormwater runoff from directly connected impervious areas while allowing sediment and other pollutants to settle and infiltrate. Vegetated areas may receive stormwater runoff from impervious areas such as driveways, roads, roof downspouts, and parking lots.

2. Design and Maintenance Requirements - Impervious Connection to Vegetated Areas

- a. The vegetated area shall be sized and designed to maximize infiltration of the design storm.
- b. The maximum paved area that may drain to a single vegetated area is 5,000 square feet. Paved surfaces shall sheet flow onto vegetated areas.
- c. The maximum rooftop area that may drain to a single vegetated area is 600 square feet.
- d. Vegetated area slopes shall not exceed 15 percent.

- e. The vegetated area length (in direction of flow) shall be as long as the site will reasonably allow, but in no instance shall be less than 15 feet. Where concentrated flow from rooftops are directed to vegetated areas, sufficient vegetated area width and appropriate design measures shall be provided to dissipate flows, prevent concentrated flows and erosion, and maximize infiltration.
 - f. Level spreaders shall be utilized where impervious contributing paved areas and vegetated areas exceed 5 percent slope or where conditions are present that cause concentrated flow. The level spreader shall be a minimum of 10 feet in length (perpendicular to flow) per one cubic foot per second of stormwater flow that is directed to it and in no instance shall be less than 10 feet in length.
 - g. Vegetation shall be selected to thrive without fertilization and pesticide application, be non-invasive, and grow in great enough density to trap pollutants.
 - h. Vegetated areas shall be designed and maintained to remain fully functional and free of erosion.
 - i. Vegetated areas shall be protected from vehicular traffic and other activities that may compact soils, cause erosion, or damage vegetation.
 - j. The vegetated area shall not contain any built-upon areas except for incidental areas such as utility boxes, signs, and lamp posts.
 - k. Bioretention, infiltration, detention, or retention basins and chambers do not qualify as an impervious area disconnection site design measure. Such features shall be designed in accordance with section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
3. Crediting - Impervious Connection to Vegetated Areas
- a. A maximum of 50 percent of the drainage management area controlled by the vegetated area may be used to meet the requirements of section on Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - b. Self-retaining area design and crediting criteria are subject to Regional Board Executive Officer approval and may only be allowed in instances where the self-retaining areas would retain the applicable design criteria flow or volume.

E6.8.4.2 Interceptor Tree Planting and Preservation

1. Description - Interceptor Tree Planting and Preservation

Interceptor trees are evergreen or deciduous trees that intercept rainwater on their leaves and branches. Intercepted water is held within the tree canopy and runs down the branches and trunk of the tree where it may infiltrate into the soil at an enhanced rate. Credit for interceptor trees applies to both planted and preserved trees.

2. Design and Maintenance Requirements - Interceptor Tree Planting and Preservation

- a. Mature tree canopies shall overhang impervious areas and trunks shall be located within 25 feet of project impervious areas.
- b. Existing and planted trees shall be and remain healthy. Trees and their root zones shall be adequately protected during construction.
- c. Infrastructure surrounding trees shall be designed to prevent girdling of the tree trunk at all life stages.
- d. Pervious surfaces surrounding the base of new and established trees shall be of sufficient area to allow for infiltration of stemflow and throughfall stormwater runoff. Pervious areas may include bare soil, pervious pavement, permeable pavers, and suspended pavement over uncompacted or structural soil.
- e. Soils that support the selected tree species shall be used.
- f. A minimum of two cubic feet of uncompacted or structural soil volume shall be provided for each square foot of estimated mature tree canopy. Adequate soil volume shall be provided to support the estimated mature tree canopy area and shall be certified by a landscape architect or other qualified professional.
- g. Where feasible, a mulch layer consisting of tree leaves or an introduced mulch layer shall surround trees to help build a healthy and infiltrative soil, retain moisture from rainfall and runoff, and increase evaporation and infiltration of runoff.
- h. Inspection and maintenance plans shall accompany proposals to claim credit for existing and planted trees. At a minimum, inspection and maintenance plans shall include appropriate annual watering, mulch maintenance, and replacement of dead and dying trees.
- i. Native species and trees with large canopies at maturity are preferred. Dwarf, palm, and invasive species are not acceptable.

- j. To maintain existing tree health, avoid grade changes that may impact tree roots or accumulation of excess moisture in the trunk area.
 - k. Where possible, existing plants that are compatible with the tree's irrigation requirements should be preserved.
3. Crediting - Interceptor Tree Planting and Preservation
- a. For each drainage management area, an amount equivalent to 75 percent of the actual or estimated mature evergreen tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - b. For each drainage management area, an amount equivalent to 50 percent of the actual or estimated mature deciduous tree canopy area may be subtracted from the total impervious area requiring control under the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.4.3 Pervious Pavement Systems

1. Description - Pervious Pavement Systems

A pavement system consisting of permeable interlocking concrete pavement (PICP), pervious or permeable concrete unit pavers, pervious grid pavements, pervious concrete, porous asphalt, turf block, grasscrete, and bricks and stones, set on a gravel base with gravel joints, which stores and infiltrates rainfall at a rate equal to natural areas, or that stores and infiltrates the rainfall runoff volume described in section E6.8.5 Criteria for Stormwater Treatment, Retention, and Peak Flow Control.

2. Design and Maintenance Requirements - Pervious Pavement Systems

- a. To be considered "pervious," the surface shall infiltrate into the underlying soil at a rate that is equal to or greater than the pre-project pervious, uncompacted soil conditions.
- b. Project proponents utilizing this site design measure shall have and implement an inspection and maintenance plan to ensure that the pavement infiltration capacity is maintained over time. Pervious pavement shall be maintained (e.g., vacuum swept) at an appropriate frequency to maintain full functionality.

- c. Pervious pavement should not be used in areas with medium to heavy vehicular traffic. Parking lots are acceptable.
 - d. Limit use in potentially high pollutant loading areas.
 - e. No erodible areas or area of high sediment generation may drain onto porous and permeable pavements.
 - f. No liners or other barriers or design elements, such as lime treatment, which would limit infiltration shall be used below pervious pavement and permeable paver sections.
 - g. In systems with underdrains, sufficient storage below the underdrain shall be provided by increasing the depth of the permeable base such that the design storm runoff volume will infiltrate.
 - h. Pervious pavement systems should not be used in areas of known soil or groundwater contamination without Regional Water Board prior authorization.
 - i. Pervious pavement systems that lose their infiltration capacity shall be replaced.
3. Crediting - Pervious Pavement Systems
- a. Pervious pavement systems may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of the section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - b. Stormwater control credit may not be claimed for any runoff directed to pervious pavement systems.

E6.8.4.4 Green Roofs

1. Description – Green Roofs

Green roofs are roofs that are entirely or partially covered with vegetation and soils. Green roofs function as a soil and plant-based filtration feature that removes pollutants through a variety of natural physical, biological, and chemical treatment processes prior to discharge.

2. Design and Maintenance Requirements – Green Roofs

- a. Shall be adequately designed by a qualified engineer, including an appropriate assessment of the necessary load reserves.
- b. Overflow requirements shall be considered in the design.

- c. Roof design shall provide a sufficient soil layer to support healthy plants, ensure soil is secure and will not erode or sluff, and provide adequate drainage for both plant health and high flow bypass.
- d. The green roof system planting media shall be sufficiently deep to provide capacity within the pore space of the media for the required runoff volume specified by section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
- e. Plants selected shall be suited for the unique shallow soil conditions.
- f. Vegetation should be selected to thrive without irrigation but may be irrigated during establishment and during the dry weather to keep vegetation alive.
- g. Green roof plant cover density shall be a minimum of 51 percent.
- h. Surface mulching material shall be non-floatable in order to prevent clogging of downstream inlets.
- i. Project proponents utilizing green roofs shall have and implement a maintenance plan to ensure that minimum plant cover density and functionality is maintained over time.

3. Crediting – Green Roofs

Green roof areas may be considered pervious areas when sizing Permanent Stormwater Control Measures to meet the requirements of section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.4.5 Rainwater Capture and Use

1. Description - Rainwater Capture and Use

Rainwater capture and use involves collecting stormwater runoff from impervious surfaces in tanks (e.g., rain barrels and cisterns) that are appropriately sized to allow for use of the collected runoff. Collected runoff may be used for irrigation, greywater systems, or other uses. Cisterns can be installed above or below ground depending upon design requirements and site conditions.

2. Design and Maintenance Requirements - Rainwater Capture and Use

- a. Project proponents shall demonstrate to the Permittee through water balance calculations how the captured water will be stored and used to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

- b. Project proponents utilizing rainwater capture and use shall have and implement a maintenance and operations plan to ensure that rainwater capture will continue to meet section Criteria for Stormwater Treatment, Retention and Peak Flow Control.
 - c. Rain barrels and cisterns shall be designed and maintained to prevent mosquito breeding.
 - d. Rain barrels and cisterns shall be opaque, water-tight, vented, completely covered and all openings shall be screened.
 - e. If used for peak flow controls, design calculations shall show continuous capacity to control peak flows, or include appropriately sized detention storage in addition to the retention volumes stored.
3. Crediting - Rainwater Capture and Use

For each Drainage Management Area, the volume captured from the design storm may apply to the total volume of stormwater required for control under section Criteria for Stormwater Treatment, Retention and Peak Flow Control.

E6.8.5 Criteria for Stormwater Treatment, Retention and Peak Flow Control

The Permittee shall require all Regulated Projects be designed to treat, retain, or capture and use stormwater to meet the following hydraulic design criteria:

1. Water Quality Treatment Requirements

Regulated Projects creating and/or replacing between 5,000 and 22,000 square feet of impervious surface shall size and design Permanent Stormwater Control Measures to:

- a. Treat the greater of:
 - 1) The runoff flow rate produced from a rain event equal to at least 0.2 inches per hour intensity;
 - 2) The runoff flow rate produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity (in inches per hour), as determined from local hourly rainfall records; or
- b. Retain the volume of runoff specified in section Retention Requirements, below.

2. Retention Requirements

Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall retain a volume of stormwater runoff from the drainage management area equivalent to the volume:

- a. Generated by the 85th percentile, 24-hour rainfall event as determined from local rainfall records² ; or
 - b. Annual runoff required to achieve 80 percent or more retention, determined in accordance with the methodology in section 5 of the California Stormwater Quality Association's Stormwater Best Management Practice Handbook, New Development and Redevelopment (2003), using local rainfall data.
3. Peak Flow Control Requirements
- a. Regulated Projects that create and/or replace greater than 22,000 square feet of impervious surface shall implement peak flow controls to match pre-development peak flow conditions from the 2-year, 24-hour rain event.
 - b. Peak flow controls may be designed such that they meet the requirements of both the sections Retention Requirements and the Peak Flow Control Requirements, thus not requiring two separate control measures.

E6.8.6 *Selection of Permanent Stormwater Control Measures for Stormwater Retention and Treatment*

The Permittee shall require Regulated Projects to meet stormwater retention and treatment criteria by implementing Permanent Stormwater Control Measures consistent with the below order of prioritization and design criteria. Implementation of lower-priority Permanent Stormwater Control Measures shall be justified in the Stormwater Control Plan. Use of lower priority Permanent Stormwater Control Measure does not exempt a drainage management area from section Target Pollutants of Concern and section Criteria for Stormwater Treatment, Retention, Peak Flow Control, or the need for offsite alternatives if retention and peak flow requirements cannot be met onsite.

1. Bioretention Stormwater Control Measures

² Determined using the formula and volume capture coefficients in Urban Runoff Quality Management, Water Environment Federation Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998) pages 175-178.

- a. Bioretention Stormwater Control Measures retain stormwater runoff using vegetated depressions and soils engineered to capture, treat, and infiltrate stormwater runoff. Bioretention best management practices implemented to the maximum extent practicable standard are considered the highest priority Permanent Stormwater Control Measure for all Regulated Projects and shall be demonstrated to be infeasible, per subsection Biofiltration under section Flow-Through Stormwater Control Measures, before Biofiltration or Subsurface Infiltration Stormwater Control Measures are considered.
- b. Bioretention Stormwater Control Measure Design Standards
Bioretention best management practices designed to the maximum extent practicable standard shall achieve applicable treatment and retention requirements and comply with the following design standards:
 - 1) Bioretention Stormwater Control Measures shall be vegetated and include at least 51 percent vegetation cover at plant maturity. Appropriate plants shall be selected for the specified soil mix and hydrologic conditions.
 - a) Bioretention Stormwater Control Measures shall be designed without horizontal liners or barriers that interfere with infiltration. A vertical liner may be used to prevent lateral flow and to separate the native soil from the bioretention soil media and aggregator an adjacent geotechnical hazard.
 - b) Bioretention Stormwater Control Measures designed to achieve retention requirements shall be designed without perforated pipes installed at the bottom of the BMP. In locations with low in-situ soil infiltration rates or other conditions limiting infiltration, the Stormwater Control Measure may be designed with an elevated perforated pipe where the retention volume is achieved below the pipe elevation.
 - c) Bioretention Stormwater Control Measures shall have a planting medium area sufficient to ensure that the design maximum surface loading rate does not exceed 5 inches per hour, based on the flow rates calculated according to the criteria in Criteria for Stormwater Treatment, Retention, and Peak Flow Control.
 - d) Bioretention Stormwater Control Measures shall have a minimum surface reservoir volume equal to surface area times a depth of 6 inches.

- e) Bioretention Stormwater Control Measures shall have a minimum planting medium depth of 18 inches. The planting medium shall sustain a minimum infiltration rate of 5 inches per hour throughout the life of the project and shall maximize runoff retention and pollutant removal.
- f) A mixture of sand (60 to 70 percent) meeting the specifications of American Society for Testing and Materials (ASTM) C33 Method and compost (30 to 40 percent) may be used.
- g) Bioretention Stormwater Control Measures shall have subsurface drainage/storage (gravel) layer with an area equal to the surface area and having a minimum depth of 12 inches.
- h) Bioretention Stormwater Control Measures shall have no compaction of soils beneath the facility.
- i) Pesticides shall not be used in bioretention Stormwater Control Measures.
- j) Bioretention Stormwater Control Measures shall be designed with a high flow bypass that is not connected to the underdrain. High flow bypasses shall not create erosive conditions.
- k) Bioretention Stormwater Control Measure mulch shall be aged, stabilized, non-floating mulch.

2. Flow-Through Stormwater Control Measures

- a. Flow-through Stormwater Control Measures are Stormwater Control Measures that do not fully meet the Bioretention Stormwater Control Measure criteria but may be used when use of a Bioretention Stormwater Control Measure is demonstrated to be infeasible as described in subsection Biofiltration, below. Flow-through Stormwater Control Measures shall treat all pollutants of concern to the maximum extent practicable and be used in conjunction with another Stormwater Control Measure, a combination of Stormwater Control Measures, or offsite alternative to fully meet stormwater retention and peak flow control requirements, where applicable. Flow-through Stormwater Control Measures shall be selected in the following order of priority.
- b. Biofiltration:
Biofiltration Stormwater Control Measures are designed consistent with the Bioretention Stormwater Control Measure Design Standards, except they are installed with underdrains and where necessary,

impermeable liners. Stormwater Control Measures in this category utilize plants and soils to treat stormwater prior to discharge but may not retain the entire volume specified in the section Retention Requirements. These Stormwater Control Measures may be allowed in the circumstances where installation of Bioretention Stormwater Control Measures are infeasible for one of the following four reasons.

- 1) Stormwater retention would cause or exacerbate a geotechnical or structural hazard as established by the geotechnical expert for the project.
- 2) Stormwater retention may mobilize pollutants in areas of known groundwater contamination.
- 3) Stormwater Control Measure placement is only feasible on a plaza or other elevated structure (e.g., flow-through planter).
- 4) Other criteria approved by a Regional Water Board Executive Officer.

c. Alternative Flow-Through Stormwater Control Measures

Alternative flow-through Stormwater Control Measures are Stormwater Control Measures that do not meet biofiltration criteria and are often proprietary devices with varying levels of design, treatment capabilities, and performance. Alternative Stormwater Control Measures may be selected, in the following order of priority, in instances where 1) higher-priority Stormwater Control Measures would interfere with historic structures or landscapes and whose original configuration is required to be preserved by local ordinance in order to maintain their historic integrity, or 2) projects that create or replace an acre or less of impervious area, and are located in a designated pedestrian-oriented commercial district (e.g., smart growth projects), and have at least 85 percent of the entire project site covered by permanent structures:

- 1) Landscape-based flow-through Stormwater Control Measures that do not meet the Bioretention or Biofiltration Stormwater Control Measure criteria. Example best management practices include tree-box media filter units and modular wetlands.
- 2) Physical structured Stormwater Control Measures that are not landscape-based. Example Stormwater Control Measures include in-vault media filters, chambered separator units, hydrodynamic separators, physical filters, trash excluders, and trash separators.

3. Subsurface Infiltration Stormwater Control Measures

- a. Subsurface infiltration Stormwater Control Measures are stormwater holding and infiltration systems that rely upon unsaturated soils above the water table to provide stormwater treatment and include, but are not limited to, infiltration trenches, infiltration basins, dry ponds, dry wells, sumps, infiltration galleries, and underground modular storage units. Subsurface Infiltration Stormwater Control Measures may only be permitted to meet retention requirements after Bioretention Stormwater Control Measures are demonstrated infeasible per subsection Biofiltration, under section Flow-Through Stormwater Control Measures. Subsurface infiltration Stormwater Control Measures may only be permitted to meet water quality treatment control requirements after Bioretention and Biofiltration Stormwater Control Measures are demonstrated infeasible.
- b. Subsurface infiltration Stormwater Control Measures shall 1) be technically feasible, 2) fully infiltrate all stormwater within 72 hours, 3) be protected from construction phase discharges and kept offline until the project site is stabilized and prepared for final occupancy, 4) achieve the required treatment, retention, and peak flow requirements, and 5) not degrade groundwater quality.
- c. Applicants of projects with proposed subsurface infiltration of stormwater shall demonstrate in the Post-Construction Stormwater Control Plan compliance with local guidelines, if available, or approval by the Regional Water Board Executive Officer (see below).
- d. Local Infiltration Guidelines
The Permittee may propose local infiltration guidelines for runoff that has not been fully treated by Biofiltration or Flow-Through Stormwater Control Measures. These guidelines, if approved, shall be incorporated into their ordinances to include both vertical and horizontal setback criteria taking into account both surface conditions (for example, land use such as residential, industrial, etc.) and subsurface conditions (for example, soil conditions, areas of known contamination, depth to groundwater, etc.). Proposed guidelines shall be submitted to the Regional Water Board Executive Officer for approval.
- e. Regional Water Board Approval
If local infiltration guidelines have not been proposed by the Permittee and approved by the Regional Board Executive officer,

then proposals for subsurface infiltration of stormwater are subject to the prior review and approval of the applicable Regional Water Board Executive Officer on a project-by-project basis. Proposals shall demonstrate that 1) Bioretention Stormwater Control Measures are infeasible per sections subsection Biofiltration, under section Flow-Through Stormwater Control Measures, 2) Flow-Through Stormwater Control Measures are infeasible, 3) subsurface infiltration is feasible, and 4) subsurface infiltration will not degrade groundwater. Proposals shall include the following information:

- 1) Depth between bottom of infiltration system and seasonally high groundwater. The smaller the distance to groundwater, the greater the threat to water quality and potential for decrease in infiltration rates;
- 2) Depth between bottom of infiltration system and underlying impermeable layers that may restrict infiltration of stormwater;
- 3) Proximity of the infiltration system to wells and springs used for drinking water supplies. In certain site-specific conditions, infiltrated stormwater may be a threat to drinking water if hydraulically connected and in close proximity to water supply wells;
- 4) Proximity to onsite wastewater treatment systems (e.g., septic systems, drain fields). Stormwater infiltration may interfere with the designed operation of onsite wastewater treatment systems or mobilize pollutants;
- 5) Soil type and characteristics underlying the infiltration system. There is a direct relationship between soil pore space and hydraulic conductivity, and potential for stormwater effects on groundwater. Additionally, soil properties affect pollutant treatment capacity, such as the positive effect of soil cation exchange capacity on phosphorous and metals removal;
- 6) Proximity to areas of known groundwater contamination. Stormwater infiltration may mobilize groundwater contaminants and plumes;
- 7) Characterization of expected pollutant sources. Site-specific, potential pollutant sources from the contributing area shall be evaluated for threat to groundwater and need for pre-treatment. For instance, areas subject to deicing practices may produce

pollutants that threaten groundwater, and areas with copper roofs or galvanized metals may transport dissolved metals;

- 8) Proximity to building foundations, utilities, and nearby structures. Infiltration of stormwater adjacent these features may interfere with infiltration, compromise building foundations or base material surrounding utilities, or result in seepage of water into subsurface building spaces;
- 9) Proximity to landforms that may present or exacerbate geotechnical hazards as a result of stormwater infiltration e.g., low-angle geologic formations and jointing, historic and pre-historic landslides, karst terrain;
- 10) A maintenance plan that ensures sediment and debris do not interfere with the short- and long-term ability of the system to function as designed. Stormwater infiltration systems may be easily clogged by sediment;
- 11) A groundwater mounding analysis may be required, where appropriate, such as areas where infiltration occurs in close proximity to:
 - a) Seasonally high groundwater elevation;
 - b) Contaminated groundwater;
 - c) Onsite wastewater treatment systems
 - d) Building, structure, or underground utility;
 - e) Other infiltration best management practices; and
 - f) Soils with low saturated hydraulic conductivity.

4. Alternatives to Onsite Retention and Peak Flow Control Requirements

Permittees may allow Regulated Projects to fulfill a portion or all of its retention or peak flow requirements at an offsite location in the following two instances.

a. Project Specific Limitations

The Permittee may allow a Regulated Project to offset retention or peak flow requirements at an offsite location only when all of the following are satisfied:

- 1) Foregoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.

- 2) Opportunities to implement the requirements (per section Criteria for Stormwater Treatment, Retention, and Peak Flow Control) have been maximized onsite and full or partial compliance with the remaining requirements are demonstrated technically infeasible per sections subsection Biofiltration under section Flow-Through Stormwater Control Measures and subsection Subsurface Infiltration Stormwater Control Measures.
 - 3) The offsite offset project provides hydraulically sized retention and peak flow control (per section Permanent Stormwater Control Measure Selection and Sizing) of stormwater runoff that meets or exceeds the foregone amount from the applicable Regulated Project.
 - 4) Offsite offset project(s) are within the same watershed as the Regulated Project. Offsite offset project sites located outside the watershed have prior approval of the Regional Board Executive Officer.
 - 5) Offsite offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.
- b. Approved Watershed or Regional Plan
- 1) Watershed or Regional Plans are plans that present a coordinated strategy to mitigate specific development impacts using regional and watershed-scale stormwater control measures. A project or projects from an approved Watershed or Regional Plan may be used to offset the Regulated Project's required retention or peak flow requirements. Proposed Watershed or Regional Plans shall be subject to the prior review and approval of the Regional Board Executive Officer and shall include, at a minimum:
 - 2) Demonstration that implementation of projects per the Watershed or Regional Plan will be as effective in meeting the applicable per section Permanent Stormwater Control Measure Selection and Sizing requirements as meeting them on site.
 - 3) Quantitative analysis (e.g., calculations and modeling) used to evaluate offsite compliance.

- 4) A demonstration that forgoing onsite retention and peak flow control will not result in significant impacts to receiving waters, such as bank erosion or channel incision.
- 5) A consideration of the long-term cumulative impacts of urbanization, including existing and future development.
- 6) A description of proposed offset project(s). The proposed offset projects may include existing facilities or prospective projects.
- 7) The location of the proposed offset project(s), which must be within the same watershed as the Regulated Project. Offset project sites located outside the watershed are subject to the approval of the Regional Board Executive Officer.
- 8) Offset projects shall be completed as soon as practicable and no longer than three years from the date of the applicable Regulated Project's certificate of occupancy unless a longer period is otherwise authorized by the Regional Water Board Executive Officer.

E6.9 Operations and Maintenance of Post-Construction Stormwater Control Measures

E6.9.1 Permittee's Operation and Maintenance Plan

The Permittee shall ensure that operation and maintenance plans exist for all Permanent Stormwater Control Measures in its MS4 boundary. The Permittee's Operation and Maintenance Plan shall:

1. Require regulated project proponents and their successors develop and implement an adequate Operations and Maintenance Plan.
2. Require at least one of the following from all Regulated Project proponents and their successors in control of the project or successors in fee title:
 - a. The project proponent's signed statement accepting responsibility for the operation and maintenance of Permanent Stormwater Control Measures until such responsibility is legally transferred to another entity;
 - b. Written conditions in the sales or lease agreements or deed for the project that requires the buyer or lessee to assume responsibility for the operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity;

- c. Written text in project deeds, or conditions, covenants and restrictions for multi-unit residential projects that require the homeowners association or, if there is no association, each individual owner to assume responsibility for the operation and maintenance of the installed Permanent Stormwater Control Measures (if any) until such responsibility is legally transferred to another entity; or
 - d. Any other legally enforceable agreement or mechanism, such as recordation in the property deed, which assigns the operation and maintenance responsibility for the installed Permanent Stormwater Control Measures (if any) to the project owner(s) or the Permittee.
3. Develop and implement a written plan that describes operation, maintenance, and inspection of all Permittee-owned or operated Permanent Stormwater Control Measures.
 4. Coordinate with the appropriate mosquito and vector control agency to establish a protocol for notification of installed Permanent Stormwater Control Measures. Before October 1st of every year, the Permittee shall submit a list of Permanent Stormwater Control Measures installed within the reporting year to the local mosquito and vector control agency and the appropriate Regional Water Board. The Permittee may submit the list of Regulated Projects. This list shall include the facility locations and a brief description of the Permanent Stormwater Control Measures.
 5. Submit requests for a Deferred Maintenance Exemption to the appropriate Regional Water Board when the following conditions are met:
 - a. The Permanent Stormwater Control Measure responsible party has worked diligently and in good faith with the appropriate state and federal agencies and the Permittee to obtain approvals necessary to complete deferred maintenance activities; and
 - b. Approvals are not granted because maintenance would result in significant impacts to waters of the state.

E6.9.2 *Maintenance Assessment / Inspection of Stormwater Treatment Facilities.*

The Permittee shall ensure that all Regulated Project Permanent Stormwater Control Measures are properly operated and maintained for the life of the projects. The Permittee shall implement an Operations and Maintenance Verification Program (Verification Program) to verify that all Permanent Stormwater Control Measures maintain full functionality. At a minimum, the Verification Program shall include the following elements:

1. Conditions of approval or other legally enforceable agreements or mechanisms for all Regulated Projects that require the granting of site access to all Permittee representatives for the purpose of performing operation and maintenance inspections of the installed Permanent Stormwater Control Measures.
2. A database or equivalent tabular format inventory of all Regulated Projects (public and private) that have installed Permanent Stormwater Control Measures. This Post-Construction Inventory shall include the following information for each Regulated Project:
 - a. Name and address of the Regulated Project;
 - b. Specific description of the location (or a map showing the location) of the installed Permanent Stormwater Control Measures (if any);
 - c. Installation date(s) of the Permanent Stormwater Control Measures;
 - d. Description of the type and size of the installed Permanent Stormwater Control Measures;
 - e. Responsible operator(s) of Permanent Stormwater Control Measures;
 - f. Dates and findings of Permittee inspections (routine and follow-up) of the Permanent Stormwater Control Measures; and
 - g. Corrective and enforcement actions taken.
3. A process for Permittee verification of the relative maintenance condition of Permanent Stormwater Control Measures. Maintenance condition shall be determined using one of the following options:
 - a. Self-Certification Program – The Permittee shall implement a program that includes:
 - 1) Requirement that authorized parties demonstrate proper maintenance and operations by submitting self-certification annual reports that include:
 - a) Field observations to determine the effectiveness of the Permanent Stormwater Control Measures in removing pollutants of concern from stormwater runoff and reducing hydromodification impacts as designed.
 - b) Long-term plan for conducting regular maintenance of Permanent Stormwater Control Measures, including vegetation. The long-term plan shall identify the frequency of regular maintenance activities.

- 2) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.
- 3) Permittee assessments of the self-certification program annual reports. Assessment shall include a ranking of Permanent Stormwater Control Measures and verification that the control measures are operating to remove pollutants as designed. Regional Permanent Stormwater Control Measures should receive higher priority than lot-scale Permanent Stormwater Control Measures, and Permanent Stormwater Control Measures designed to remove pollutants for which receiving water is impaired should receive priority attention over other Permanent Stormwater Control Measures.
- 4) Permittee onsite inspections of at least one-half of all Permanent Stormwater Control Measures every five years. The inspections shall:
 - a) Identify whether the Permanent Stormwater Control Measure is functioning as designed;
 - b) Include a review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan;
 - c) Identify maintenance actions needed and timeline for their implementation; and
 - d) Determine whether self-certification reports reflect actual site conditions.
- b. Permittee-led Inspection Program – Permittees shall develop and implement an annual inspection program to verify Permanent Stormwater Control Measures are properly maintained and operated. The inspection program shall include the following:
 - 1) An inventory and map of existing Permanent Stormwater Control Measures, in GIS if available.
 - 2) Permittee inspection of all Permanent Stormwater Control Measures, at a minimum of once every five years, or more frequently as appropriate based on inspection results. Inspections shall include:
 - a) Field inspection of the facility;

- b) Identify whether the Permanent Stormwater Control Measure is functioning as designed;
- c) Identify maintenance actions needed and timeline for their implementation;
- d) Review of the owner's operations and maintenance actions and documentation to verify conformance with the Operation and Maintenance Plan; and
- e) Documentation of the inspection.

E6.9.3 *Permanent Stormwater Control Measure Field Verification*

The Permittee shall establish and implement a mechanism (a checklist or other tools) to verify that Permanent Stormwater Control Measures are constructed as designed and approved in accordance with these Permanent Stormwater Management Requirements.

1. Prior to temporary and final occupancy of each Regulated Project, the Permittee shall field verify that the Runoff Reduction, treatment, retention, and peak flow controls have been implemented in accordance with these Post-Construction Requirements. The Permittee may accept third-party verification of Permanent Stormwater Control Measures conducted and endorsed by a registered professional engineer, geologist, architect or landscape architect.

E6.10 Planning and Development Review Process

1. The Permittee shall incorporate into their planning and project initiation process standard procedures that require consideration of potential stormwater quality impacts early in the planning process of any project that meets the criteria of this Order for new development and redevelopment projects. Each Permittee shall clearly demonstrate the developer and Permittee considered stormwater quality site issues before the facilities/projects reached final design. The Permittee must demonstrate review in the conceptual design of stormwater quality protection at the earliest possible stage in the project planning, initiation, and similar discretionary or ministerial approval process:
2. The Permittee shall establish a plan review and approval process for regulated projects that includes an organizational structure for communication, coordination, and delineated authority between and among departments that have jurisdiction over project review, plan approval, and

project construction to ensure all required post-construction measures are designed to meet this order.

3. For each Regulated Project subject to the Low Impact Development requirements, the Permittee shall develop a Post-Construction Stormwater Control Plan that includes the following and other necessary information to show how the proposed project will comply with the requirements.
 - a. Project Name, application number, and location including address and assessor's parcel number.
 - b. Name of Applicant.
 - c. Project Phase number (if project is being constructed in phases).
 - d. Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description.
 - e. Total project site area.
 - f. Total new and replaced impervious surface area.
 - g. Summary of Site Assessment.
 - h. Pre-and post-development Drainage Management Areas.
 - i. Summary of Permanent Stormwater Control Measures used.
 - j. Justification wherever 1) lower-priority Permanent Stormwater Control Measures are selected due to infeasibility of higher priority Permanent Stormwater Control Measures and 2) Alternatives to Onsite Retention and Peak Flow Control Requirements are used to meet retention and peak flow requirements. The justification(s) shall cite relevant portions of the Order allowing selection of lower priority Permanent Stormwater Control Measures and allowance of the offsite projects.
 - k. Summary of Source Controls, Runoff Reduction Measures, and Permanent Stormwater Control Measures by Drainage Management Area, as well as for the entire site.
 - l. Supporting calculations that document proper design and sizing of runoff reduction measures and stormwater control measures used to comply with the applicable requirements.
4. The Permittee shall not grant approval for construction of impervious surfaces, until the Post-Construction Stormwater Control Plan for the Regulated Project sufficiently demonstrates the Regulated Project design meets the Low Impact Development Design Requirements.

5. New Non-Traditional Permittees shall review their planning and permitting process to assess any gaps or impediments impacting effective implementation of these post-construction requirements specified in section Planning and Development Review Process. Where these are found to exist, Permittees shall seek solutions to promote implementation of these requirements within the context of public safety and community goals for land use.

In Years 1-3 of their enrollment under this Order, new Non-Traditional Permittees shall conduct the review using an existing guide or template already developed for MS4s (such as the [Municipal Regulatory Update Assistance Program](http://www.casqa.org/LIDDemo/LIDTraining/tabid/246/Default.aspx) (<http://www.casqa.org/LIDDemo/LIDTraining/tabid/246/Default.aspx>)).

- a. Within 1 year of the effective date of this Order or the Permittee's effective date of designation, whichever is later, new Non-Traditional Permittees shall conduct an analysis of the landscape code to correct gaps and impediments impacting effective implementation of post-construction requirements.
- b. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, new Non-Traditional Permittees shall complete any changes to the landscape code to effectively administer post-construction requirements.
- c. Within 3 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall complete any changes to the planning and permitting process to effectively administer these provisions.

E6.11 Alternative Post-Construction Stormwater Management Requirements Based on Assessment and Maintenance of Watershed Processes

1. Small MS4s subject to this Order, in place of complying with the requirements set forth in Sections E6.1 through E6.9 and Section E10.6 (Post-Construction Program Reporting) of this Order, shall comply with post-construction stormwater management requirements based on a watershed-process approach developed by Regional Water Boards that includes the following:
 - a. Completion of a comprehensive assessment of dominant watershed processes affected by urban stormwater.
 - b. Low impact development runoff reduction measures, numeric runoff treatment and retention controls, and hydromodification controls that will

- maintain watershed processes and protect water quality and beneficial uses.
 - c. A process by which Regional Board staff will actively engage Permittees to adaptively manage requirements as determined by the assessment of watershed processes.
 - d. An annual reporting program that involves Regional Water Board staff and State Water Board staff to inform statewide watershed process-based criteria.
2. The regional watershed-process based approach shall be approved by the Regional Water Board following a public process.

E6.12 Alternative Post-Construction Stormwater Management Program

1. A Permittee may propose alternative post-construction measures in lieu of some or all of section Post-Construction Stormwater Management Program requirements for multiple benefit projects.
2. Multiple Benefit Projects
 - a. Multiple benefit projects include projects that address any of the following, in addition to water quality:
 - 1) Water supply;
 - 2) Flood control;
 - 3) Habitat enhancement;
 - 4) Open space preservation;
 - 5) Recreation; and
 - 6) Climate change.
 - b. Multiple benefit projects may be applied at various scales including project site, municipal or sub-watershed level.
 - c. Multiple benefit projects may include, but are not limited to, projects developed under Watershed Improvement Plans (Water Code section 16100 et seq.), Stormwater Resource Plans, Integrated Regional Water Management Plan implementation and green infrastructure projects.
3. Alternative post-construction measures for multiple benefit projects must be equally or more protective of water quality than equivalent requirements it is replacing.
4. If the Regional Water Board or Executive Officer finds, after an opportunity for public comments, that the alternative measures are consistent with the maximum extent practicable standard, alternative post-construction

measures for multiple benefit projects, as described above, may be implemented.

E7. TMDL DEMONSTRATION OF COMPLIANCE AND TIME SCHEDULE ORDERS

Attachment G contains a list of TMDL-specific responsible Permittees and implementation, monitoring, and reporting requirements, which are applicable to identified responsible Permittees. The sections TMDL Demonstration of Compliance Report and Request for Time Schedule Order, below, provide the reporting requirements for TMDL demonstration of compliance.

E7.1 TMDL Demonstration of Compliance Report

For purposes of this section, the wasteload allocations specified in the applicable TMDLs (as identified in the Fact Sheet) are incorporated by reference. Permittees shall submit a TMDL Demonstration of Compliance Report, as follows:

1. Submit to SMARTS and the applicable Regional Water Board Executive Officer for review and consideration of approval.
2. Prior to the deadline to comply with the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations, if the permittee reports and substantiates that it is timely implementing all best management practices, maintenance, and other requirements specified in Attachment G for that TMDL. Alternatively, the Permittee may make a demonstration of compliance in accordance with subsection E7.1.3.
3. On or after the deadline to attain the final wasteload allocation, a Permittee may demonstrate compliance with the applicable TMDL wasteload allocations if the Permittee meets one or more of the criteria in subsections (a) through (g), as follows:
 - a. Receiving Water Quality Monitoring. Receiving water monitoring and analysis by the Permittee or other responsible parties under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the Permittee's discharge; or
 - b. Loads from Other Sources. Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the Permittee demonstrates, through an approach

approved by the Regional Water Board or its designee, that exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the Permittee are not causing or contributing to the exceedances; or

- c. Concentrations. Where the wasteload allocation is expressed as a concentration, sampling of the Permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or
- d. Mass-Based Wasteload. Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge is attaining the individual or joint allocation or the percent reduction; or
- e. Allowable Exceedance Days. Where a wasteload allocation is expressed as the number of allowable exceedance days, the Permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the Permittee's discharge conforms to the allowable exceedance days; or
- f. No Discharge. The Permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or
- g. Other Factors. The Permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s) and as approved by the Regional Water Board or its designee.

E7.2 Request for Time Schedule Order

In some cases, Attachment G includes dates that fall outside the term of this Order. Compliance deadlines for wasteload allocations and other permit requirements that exceed the term of this Order become enforceable in the event that this Order is administratively extended. Some wasteload allocation compliance deadlines have already passed and are enforceable on the effective date of this Order.

1. Requests for Extensions and Time Schedule Orders

Where a final deadline to attain a wasteload allocation has passed and the Permittee has not demonstrated compliance, the Permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional

Water Board. Permittees may request a time schedule order individually or together with other Permittees subject to the TMDL. Permittees may also request time schedule orders where the Permittee has not timely complied with a best management practice-based water quality based effluent limits or other TMDL-related permit requirement.

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

- a. Any available data demonstrating the current quality of the MS4 discharge(s) in terms of the applicable wasteload allocation units (i.e., concentration or load) of the target pollutant(s) to the receiving waters subject to the TMDL;
- b. A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
- c. Justification of the need for additional time to achieve the requirements;
- d. The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G; and
- e. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

E8. WATER QUALITY MONITORING

E8.1 Regional Monitoring Programs

1. Upon approval by the applicable Regional Water Board Executive Officer, Permittees may participate in a Regional Water Board approved monitoring program (e.g., Delta Monitoring Program, San Francisco Bay Regional Monitoring Program) in lieu of all or a portion of the Water Quality Monitoring section.
2. As part of its approval, the applicable Regional Water Board Executive Officer shall determine that the Regional Water board approved monitoring program adequately substitutes for the requirements of the Water Quality

Monitoring section being substituted for by the approved monitoring program.

3. All Permittees participating in an approved regional monitoring program at the time of the Order effective date shall consult with the Regional Water Board within 1 year of the effective date of the permit to assess which elements of this Order's Water Quality Monitoring section are adequately addressed by the approved monitoring program and which elements the Permittees should continue to implement.
4. Permittees participating in a regional monitoring program shall complete a memorandum of agreement to participate in the program within 1 year of the Effective date of this Order or the Permittee's effective date of designation, whichever is later.
5. Where a regional monitoring group has initiated plans before the effective date of this Order to conduct monitoring that achieves compliance the Water Quality Monitoring section, the Permittee may request the Executive Officer of the applicable Regional Board tailor compliance dates in this permit to synchronize with the monitoring program. Additionally, existing regional monitoring efforts shall be reviewed and approved by a Regional Water Board Executive Officer.
6. Where a Permittee receives grant funding to conduct monitoring that achieves compliance with the Water Quality Monitoring section, the Permittee may request the Regional Water Board Executive Officer tailor compliance dates in this permit to synchronize with the monitoring program.

E8.2 Areas of Special Biological Significance Monitoring

All Permittees that discharge to an ASBS and are covered by an Ocean Plan exception shall comply with the monitoring requirements described in the terms, prohibitions, and special conditions in Attachment F.

E8.3 TMDL Monitoring

Permittees shall implement monitoring requirements assigned to them in Attachment G.

E8.4 303(d) Monitoring

1. All Permittees that discharge to waterbodies listed as impaired on the 303(d) list at the time of adoption of this Order (see the State Water Board's [Surface Water Quality Assessment web page](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) (https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired) where urban runoff is listed as the source, shall consult

with the Regional Water Board within 1 year of the effective date of the permit to assess whether new or continued monitoring is necessary and if so, determine the monitoring study design and a monitoring implementation schedule. Permittees shall implement monitoring of 303(d) impaired water bodies as specified by the Regional Water Board Executive Officer. Permittees are encouraged to consider participation in regional monitoring efforts to satisfy monitoring requirements for 303(d) impaired water bodies.

2. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a summary of baseline data collections and discussion of monitoring program results.
3. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a report that includes a comparison of data collection to baseline data, and discussion of monitoring program results.
4. At a minimum, the monitoring reports shall include the following information:
 - a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
 - b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
 - c. Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable.
 - d. Results of data collection, including concentration detected, measurement units, and detection limits if applicable.
 - e. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.
 - f. Comparison to reference sites (if applicable), guidelines or targets
 - g. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.
 - h. Quantifiable discussion of program/study pollutant reduction effectiveness.

E8.5 Additional Monitoring

The State Water Board or the Regional Water Boards may order additional monitoring as necessary to demonstrate compliance with this Order per Water Code section 13383.

E8.6 Quality Assurance Project Plans

For all monitoring, the Permittee shall prepare, maintain, and implement a Quality Assurance Project Plan. Monitoring samples shall be collected and analyzed according to the Quality Assurance Project Plan developed for the purpose of compliance with this Order. Quality assurance guidance is available on the [Surface Water Ambient Monitoring Program Quality Assurance web page](#) at

https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html and the [Water Boards QA/QC website on Developing a QAPP](#): https://www.waterboards.ca.gov/water_issues/programs/quality_assurance/qapp.html.

E8.7 Monitoring Plans and Reports

1. Before conducting any new water quality monitoring or making changes to any existing water quality monitoring programs already in place, the Permittee shall complete and have available a monitoring plan that includes a summary of any available baseline data collections or monitoring program results.

At a minimum, the monitoring plan shall include the following information:

- a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
 - b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable.
 - c. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
 - d. Methods to be used for sample collection.
2. Within 5 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, the Permittee shall complete and have available a monitoring report that includes a comparison of data collected to baseline data, and a discussion of monitoring program results.

At a minimum, the monitoring report shall include the following information:

- a. The purpose of the monitoring, contextual background and a description of the study design and rationale.
- b. Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable. Sampling design, including sampling protocol, time of year, sampling frequency and length of sampling.
- c. Methods used for sample collection.
- d. Sample or data collection identification, collection date, and media if applicable.
- e. Results of data collection, including concentration detected, measurement units, and detection limits and laboratory qualifiers, if applicable.
- f. Quantifiable assessment analysis and interpretation of data for each monitoring parameter or other data type.
- g. Comparison to reference sites (if applicable), guidelines or targets.
- h. Discussion of whether data collected addresses the objective(s) or question(s) in the study plan.
- i. Quantifiable discussion of program/study pollutant reduction effectiveness.

E8.8 Data Submittal

Water quality data shall be uploaded to SMARTS and shall conform to the California Environmental Data Exchange Network "[CEDEN Minimum Data Templates](http://ceden.org/)" format, available at <http://ceden.org/>.

E9. PROGRAM EFFECTIVENESS ASSESSMENT AND IMPROVEMENT

E9.1 Program Effectiveness Assessment and Improvement Plan

1. Within 2 years of the effective date of this Order or the Permittee's effective date of designation, whichever is later, New Permittees shall develop and implement a Program Effectiveness Assessment and Improvement Plan that tracks annual and long-term effectiveness of the stormwater program. Within 1 year of the effective date of this Order, Renewal Permittees shall update their existing Program Effectiveness and Assessment and Improvement Plans to be compliant with this section of this Order.
2. Permittees that have a Program Effectiveness Assessment and Improvement Plan, or equivalent, approved by the applicable Regional

Water Board, or that have a schedule approved by the applicable Regional Water Board to develop and implement such a Plan, shall update the approved Plan or schedule as necessary to comply with the section Program Effectiveness Assessment and Improvement Plan.

3. The Program Effectiveness Assessment and Improvement Plan shall include the following elements, at a minimum as applicable:
 - a. Description of the strategy used to gauge the effectiveness of prioritized BMPs and program implementation as a whole. Prioritized BMPs include BMPs implemented based on pollutants of concern. Where pollutants of concern are unidentified, prioritized BMPs are based on common pollutants of concern (i.e., sediment, bacteria, trash, nutrients).
 - b. Description of how permittee tracks short and long-term progress of the storm water program at implementation of storm water program elements
 - c. Identification and targeting of target audience(s)
4. Annually after development of the Program Effectiveness Assessment and Improvement Plan, the Permittee shall assess progress towards implementing the Program Effectiveness Assessment and present previous years short and long-term progress of the storm water program through an effectiveness assessment report. The effectiveness assessment report shall incorporate assessments of BMP performance to improve effectiveness. The effectiveness assessments shall build upon each other from one year to the next and shall identify modifications to the program the Permittee must undertake to improve effectiveness.

E9.2 Stormwater Program Modifications

1. Within the fifth year of enrollment in this Order, the Permittee shall modify best management practices or the entire program to improve compliance with conditions of this Order and improve program effectiveness at reducing pollutant loads, achieving the maximum extent practicable standard, and protecting water quality. The Permittee shall identify and summarize best management practices and program modifications identified in priority program areas. Modifications shall include:
 - a. Improving upon best management practices that are underperforming;
 - b. Continuing and expanding upon best management practices that proved to be effective, including identifying new best management practices or modifications to existing best management practices designed to increase pollutant load reductions;

- c. Discontinuing best management practices that may no longer be productive and replacing with more effective best management practices; and
 - d. Shifting priorities to make more effective use of resources.
2. The Permittee shall use information gained through the program effectiveness assessment and MS4 discharge and receiving water monitoring to identify priority areas for program improvement.
3. The Permittee shall consult with the applicable Regional Water Board in setting expectations for the scope, timing, and frequency of best management practice modifications.

E10. REPORTING PROGRAM

E10.1 Annual Report and Annual Reporting Requirements

1. By October 15 of each year, the Permittee shall use the State Water Board's SMARTS to submit a summary of the past year activities for each program element and certify compliance with all requirements of this Order. If a Permittee is unable to certify compliance with a requirement, the Permittee shall submit in SMARTS the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.
2. Permittees shall complete and retain all Annual Report information on the previous fiscal year beginning July 1 and ending June 30. The Permittee shall retain documentation as necessary to support their Annual Report. The Permittee shall make this supporting information available during normal business hours, unless otherwise agreed to by the applicable Regional Water Board's Executive Officer.
3. The Permittee shall submit, when requested by the Executive Officer of the applicable Regional Water Board, a detailed written online Annual Report or in-person presentation of the Annual Report that addresses the activities described in this Attachment. The detailed Annual Report shall clearly refer to the requirements of this Order and describe in quantifiable terms, the status of activities undertaken to comply with each requirement.
4. Permittees involved in regional programs may coordinate with the members to identify reporting responsibility. The one report submitted on behalf of Permittees involved in a regional program shall include a summary of the past year activities for each program element and certification of compliance

with all requirements of this Order for each of the Permittees in the regional program.

E10.2. Program Management Reporting

E10.2.1 One-Time Per Permit Term Reporting Items

1. In Year 1 for Renewal Permittees and Year 2 for New Permittees, the Permittee shall submit a certification statement per Certification section.

E10.2.2 Annual Reporting Items

1. In Year 1, and annually thereafter, report the total number of actions taken within each category of enforcement (verbal warnings, written notices, escalated enforcement actions) and of those identify the following:
 - a. Number of corrective actions resolved within permitted time frame; and
 - b. Number of cleanup and abatement actions performed or contracted by the Permittee for discharges not generated by Permittee.
2. In Year 1, and annually thereafter, submit a list of chronic violators including identification information.
3. In Year 1, and annually thereafter, submit a list of NPDES referrals including documentation information per section NPDES Permit Referrals.
4. In Year 1, and annually thereafter if the Permittee has made any changes to their guidance document, the Permittee shall submit an updated guidance document per Section D1.4.

E10.3 Public Education and Outreach Reporting

E10.3.1 One-Time per Permit Term Reporting Items

1. In Year 1, report the compliance option selected per Compliance Options section.
2. In Year 1, submit any necessary documentation for collaborative options per Compliance Options section, item 2.
3. In Year 2, submit the public education strategy developed per the Development and Implementation section.

4. In Year 2, list the years that surveys will be conducted per the Development and Implementation section, item 3.

E10.3.2 *Annual reporting items*

In Year 2, and annually thereafter, submit a summary of all actions completed per the public education strategy and identify which are completed independently or by the group. At a minimum include:

1. List and description of public education and public participation and involvement activities conducted.
2. Total annual expenditure/cost-share to conduct the program.
3. Submit annual reports as required by the Community Based Social Marketing program if required by the Regional Board.

E10.4 Illicit Discharge Detection and Elimination Program Reporting

E10.4.1 *One-time Per Permit Term Reporting Items*

1. In Year 1, submit Illicit Discharge and Spill Response Plan per the Illicit Discharge and Spill Response section.
2. In Year 1, submit procedures for Illicit Discharge and Spill Response section, item 2.
3. In Year 1, submit Dry Weather Flow Investigation and Sampling procedures per the Dry Weather Flow Investigation and Sampling section.
4. In Year 1, submit procedures for Potential Illicit Discharge Source/Facility Inspections per the Potential Illicit Discharge Source/Facility Inspections section, item 1.
5. In Year 2, submit Illicit Discharge Source Areas map per the Illicit Discharge Source Areas section, item 2.

E10.4.2 *Annual Reporting Items*

1. Report number of complaints and notifications of illicit discharges and spills.
2. Report findings of any dry weather flow investigations.
3. Beginning in Year 3, and annually thereafter, submit updated Illicit Discharge Source/Facility Inventory per Potential Illicit Discharge Source/Facility Inventory section.

4. Beginning in Year 2, and annually thereafter, submit documentation of the past year's staff training events including dates and locations of the training and list of staff trained per the Illicit Discharge Detection and Elimination Staff Training section.

E10.5 Pollution Prevention and Good Housekeeping Program Reporting

E10.5.1 One-time per Permit Term Reporting Items

1. In Year 1, submit the map of permittee owned and operated facilities per the Map of Permittee-Owned and Operated Facilities section.
2. In Year 2, submit a copy of the Inventory of Permittee-Owned or Operated Facilities including those identified as hotspots.
3. In Year 1, submit the documentation of municipal Operation and Maintenance activities and their corresponding best management practices as identified in the Permittee Operations and Maintenance Activities section.

E10.5.2 Annual Reporting Items

1. In Year 1, and annually as changes are made, submit the updated MS4 Map per the MS4 Map section.
2. In Year 2, and annually thereafter, submit an asset inventory and map per the Stormwater Asset Management Inventory section.
3. In year 2, and annually thereafter if changes are made, submit the Routine Asset Maintenance Plan per the Asset Maintenance and Improvement Planning section, item 1.
4. In Year 5, and annually thereafter if changes are made, submit the Long-Term Asset Operation and Improvement Plan per the Asset Maintenance and Improvement Planning Section, item 2.
5. In Year 1, and annually thereafter, report dates, content, and staff roster of staff training conducted per the Pollution Prevention and Good Housekeeping Staff Training section.
6. In Year 2, and annually thereafter, describe actions taken to comply with Provision E4.16. Reporting shall either include a statement on non-applicability or identify the BMPs implemented, and the numbers or frequency (as applicable) and locations of actions taken to reduce bacteria from domestic animal sources.

E10.6 Construction Site Stormwater Runoff Program Reporting

E10.6.1 One-time per permit term reporting items

In Year 1, upload the adopted ordinance that complies with this Order and errata sheet as necessary citing changes or added language.

E10.6.2 Annual reporting items

1. Inventory and Tracking

- a. Submit an updated Regulated Construction Project inventory.
- b. Number of Priority Regulated Construction Projects.
- c. Number of Non-Priority Regulated Construction Projects.

2. Construction Site Inspection and Enforcement

- a. Number of inspections performed.
- b. Number of inspections leading to enforcement within each category below:
 - Written notices.
 - Escalated enforcement actions by category (citations/fines, plan review or other authorization withheld, stop work orders).

3. Permittee Construction Staff Training

List staff certified as Qualified Stormwater Pollution Prevention Plan Developer (QSD) and Qualified Stormwater Pollution Prevention Plan Practitioner (QSP).

4. Construction Site Operator Outreach and Education

Submit link to stormwater website containing materials used for outreach and education.

E10.7 Post-Construction Program Reporting

E10.7.1 One-time per permit term reporting items

1. In Year 2– New Permittees – Report/Verify mechanism for requiring these post-construction requirements (Upload a copy of the Legal Authority).
2. In Year 1 submit policy and flowchart for project approval coordination per Section E6.3.5.

E10.7.2 Annual reporting items

1. Small Projects

- a. Number of projects that have received approval.

2. Regulated Projects

For each Regulated Project approved during the reporting period, the following information shall be reported electronically in tabular form:

- a. Project Name, Location
- b. Project Type (e.g., commercial, residential, mixed use, industrial, recreational)
- c. Project Watershed
- d. Total project site area and total area of land disturbed
- e. Total new impervious surface area and total replaced impervious surface area.
- f. Total pre-project impervious surface area and total post-project impervious surface area
- g. Discretionary or Ministerial project approval
- h. Status of project (i.e., initial application submittal, tentative and final approval, Post-Construction Stormwater Control Plan approved (y/n), construction commenced (y/n), construction completed).
- i. Specific runoff reduction measures used.
- j. Are peak flow controls required per section E6.7.5.3? (Y/N)
- k. Where are Post-construction stormwater control systems for the regulated project installed? Onsite, at a shared stormwater treatment facility, or at an offsite location?
- l. Post-Construction Operation and Maintenance responsible party
- m. Post-construction Operation and Maintenance Plan provided (Y/N)?
- n. Stormwater Retention and Treatment sizing criteria used (i.e., flow or volume-based)
- o. Date of as built field verification

3. Operations and Maintenance:

- a. Total Number of sites with installed stormwater control measures.
- b. Number of permittee-led inspections performed.

4. Post-Construction Stormwater Control Measure Field Verification and Long-Term Maintenance Assessment

- a. Number of projects field verified by Permittee staff.
- b. Number of projects verified by a third party.

E10.8 Total Maximum Daily Loads Compliance Reporting

The Permittee shall complete and report the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the permit with each Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

1. A description of best management practices implemented, including types, number, and locations; and
2. All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G; and
3. An assessment of the effectiveness of implemented best management practices in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
4. All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes; and
5. Based on results of the effectiveness assessment and monitoring, a description of the additional best management practices that will be implemented to attain wasteload allocations within the TMDLs specified timeframes.

E10.9 Water Quality Monitoring Reporting

E10.9.1 One-time per permit term reporting items

1. In Year 1, Permittees participating in a regional monitoring program shall upload statement of commitment to that program per the requirements in the Regional Monitoring Programs section.
2. In Year 1, Permittees conducting monitoring shall submit a monitoring plan per the requirements in the Monitoring Plans and Reports section, item 1.
3. In Year 5, Permittees conducting monitoring shall submit a monitoring report per the requirements in the Monitoring Plans and Reports section, item 2.

E10.9.2 Annual reporting items

In Year 2, and annually thereafter, Permittees conducting monitoring shall submit a report of the results of monitoring activities for the reporting year.

E10.10 Program Effectiveness Assessment and Improvement Reporting

E10.10.1 One-time per permit term reporting items

1. In Year 2 submit the Program Effectiveness Assessment and Improvement Plan.
2. In Year 5 submit an analysis of the effectiveness of modifications made at improving best management practice or program effectiveness.
3. In Year 5 submit the list of best management practice or program modifications the Permittee will make for priority program areas as specified in the Stormwater Program Modifications section, item 1, including identification of priority program areas and the schedule the Permittee will follow to complete identified modifications during the next permit term.

E10.10.2 Annual reporting items

Beginning in Year 3, describe implementation of the Program Effectiveness Assessment and Improvement Plan. Summarize data obtained through quantitative best management practice performance assessments and the short and long-term progress of the stormwater program and provide an analysis of the data to improve program effectiveness, to achieve the Maximum Extent Practicable standard, and protect water quality.

ATTACHMENT F AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE IMPLEMENTATION REQUIREMENTS

OVERVIEW

The requirements in this Attachment implement State Water Board Resolution No. 2012-0012 (as amended by State Water Board Resolution No. 2012-0031), the Exceptions to the California Ocean Plan for Selected Discharges into Areas of Special Biological Significance, Including Special Protections for Beneficial Uses ([General Exception](#)).

Key terms are found in the Glossary. Applicable tables, including the 85th Percentile of Natural Ocean Water Quality Values at Reference Area Monitoring Sites (for the Regional Monitoring Program table and the 2019 Ocean Plan tables are located in this Attachment’s [Tables](#).

Plans and reports shall be submitted to the applicable Regional Water Board Executive Officer or the State Water Board Executive Director as indicated in this Attachment. All reports and plans shall be uploaded to SMARTS under the “attachments” tab unless notified otherwise by the State Water Board Executive Director.

F1. APPLICABLE PERMITTEES

Small MS4 Permittees granted an exception to the Ocean Plan are listed below.

Small MS4 Permittees Granted an Exception to the Ocean Plan

Regional Board	Permittee, and Park or Other Name where Applicable	ASBS
North Coast	City of Trinidad, Trinidad Head	Trinidad Head
North Coast	County of Humboldt, Shelter Cove Community Area	King Range
North Coast	Department of Parks and Recreation, Gerstle Cove State Marine Conservation Area	Gerstle Cove
North Coast	Department of Parks and Recreation, Jug Handle State Natural Reserve	Jug Handle Cove
North Coast	Department of Parks and Recreation, Trinidad State Beach	Trinidad Head
North Coast	Department of Parks and Recreation, Del Norte Coast Redwoods State Park and Prairie Creek Redwoods State Park	Redwoods State and National Park
San Francisco Bay	County of Marin, Duxbury Reef	Duxbury Reef
San Francisco Bay	Department of Parks and Recreation, Montara State Beach	James V. Fitzgerald
San Francisco Bay	National Park Service, Point Reyes National Seashore	Point Reyes National Seashore

Regional Board	Permittee, and Park or Other Name where Applicable	ASBS
Central Coast	City of Monterey	Pacific Grove
Central Coast	City of Pacific Grove	Pacific Grove
Central Coast	City of Carmel by The Sea	Carmel Bay
Central Coast	County of Monterey	Carmel Bay
Central Coast	Department of Parks and Recreation, Año Nuevo State Park and Año Nuevo State Reserve	Año Nuevo
Central Coast	Department of Parks and Recreation, Carmel River State Beach	Carmel Bay
Central Coast	Department of Parks and Recreation, Jules Pfeiffer Burns State Park	Julia Pfeiffer Burns
Central Coast	Department of Parks and Recreation, Point Lobos State Natural Reserve	Point Lobos
Central Coast	Pillar Point Air Force Station, Vandenberg Air Force Base (Department of Defense)	James V. Fitzgerald
Santa Ana	Department of Parks and Recreation, Crystal Cove State Park	Irvine Coast

F2. DISCHARGE PROHIBITIONS

ASBS-specific prohibitions are provided in section 4.2 of this Order.

F3. UPDATED ASBS COMPLIANCE PLAN

No later than 12 months after the effective date of this Order, the Permittee shall submit an updated ASBS Compliance Plan to the applicable Regional Water Board Executive Officer for review and consideration of approval.

As long as the Permittee has complied with the procedures described below, has implemented its ASBS Compliance Plan under the previous permit, and is implementing an updated ASBS Compliance Plan according to the requirements of this Attachment, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of natural ocean water quality conditions due to the same constituent-location pair (General Exception, section A.2.h.(4)).

The Permittee’s updated ASBS Compliance Plan shall:

1. Be submitted in track-changes or as an addendum to the plan submitted under the previous permit. In either case, the ASBS Compliance Plan submitted under the previous permit must be included (either with the track-changes or with the addendum).
2. Include revisions to the monitoring plan for resampling in the event the Permittee has not completed required resampling for any exceedances of

natural ocean water quality under the previous permit. Use the [flowchart](#) in this Attachment to determine an exceedance of natural ocean water quality.

3. Include an updated best management practices map for the location and monitoring result pairs that indicate that discharges may be causing or contributing to alterations of natural ocean water quality.
4. Include a statement indicating whether the Permittee completed the core discharge monitoring, ocean receiving monitoring, and resampling that was required under the previous permit. If the Permittee concluded that all required resampling was completed, the Permittee shall provide details to support that conclusion.
5. Include a table with post-storm receiving water samples that exceed the 85th percentile of reference sample concentrations for which best management practices were not installed under the previous permit. The table shall include the constituent-location pair, ASBS location name, and the ocean receiving water site identification number.
6. Include an updated monitoring plan with schedule for resampling the receiving water for constituent-location pairs that exceed the 85th percentile of reference sample concentrations.
 - a. Include a schedule for pre-and post-storm monitoring of constituent-location pairs that exceed natural ocean water quality in receiving water.
 - b. Include US E.P.A. analytical methods and the lowest minimum detection limits comparable to the Ocean Plan water quality objectives. For metal analysis, all samples, including stormwater effluent, reference samples, and ocean receiving water samples, shall be analyzed using Inductively Coupled Plasma/Mass Spectrometry or other approved method with the lowest minimum detection limit described in the Ocean Plan.
7. Include an updated implementation schedule for the type and installation date of best management practices and practices/measures. The implementation schedule shall ensure that natural ocean water quality conditions are achieved and maintained by either reducing flows from impervious surfaces, reducing pollutant loading, or a combination thereof. The implementation schedule shall be designed to bring the Permittee's discharges into compliance with the requirements of General Exceptions as soon as is practicable. The Permittee shall include documentation verifying that selected best management practices are designed such that the effluent will meet the natural ocean water qualities in the receiving water.
8. Include an updated map showing priority discharge locations, surface drainage of stormwater runoff, areas of sheet flow of stormwater runoff, structural best management practices already implemented, and any best management

practices to be installed in the future to control the pollutants that are causing exceedance of the natural ocean water quality.

9. Include a description of the measures by which all non-authorized non-storm water runoff (e.g. dry weather flows) will be eliminated, and how measures will be maintained, monitored, and documented.
10. Include descriptions of inspections and maintenance once prior to the beginning of the rainy season and once during the rainy season for stormwater outfall drains equal to or greater than 18 inches in diameter or width.
11. Include descriptions of stormwater discharges during wet weather flows, including the necessary best management practices to achieve pollutant reductions to comply with the special conditions in the General Exception.
12. Include description of how to address erosion control and the prevention of anthropogenic sedimentation. The natural habitat conditions in the ASBS shall not be altered because of anthropogenic sedimentation.
13. Include description of existing and planned non-structural best management practices, including those for any construction site activities, and a corresponding implementation schedule.
14. Include description of and an implementation schedule for any low impact development measures currently employed and/or planned for higher threat discharges. To control stormwater runoff discharges (at the end-of-pipe) during a design storm, the Permittee must first consider, and use where feasible, low impact development practices to infiltrate, use, or evapotranspire stormwater runoff on-site, if low impact development practices would be the most effective at reducing pollutants from entering the ASBSs.
15. Include the strategy to ensure the Permittee's discharges to areas listed in the table required under section F3, item 5, above, in this Attachment, or in areas where future alterations of natural ocean water quality are detected, do not cause or contribute to alterations. The strategy shall include one or more of the following to demonstrate that the Permittee is not causing or contributing to the alteration of natural ocean water quality for each location/parameter pair in its table with post-storm samples that exceed the 85th percentile of reference sample concentrations.
16. Include a technical description of best management practices to control stormwater runoff discharges during a design storm, including the achievement, on average, of the following target levels:
 - a. Instantaneous Maximum Water Quality Objectives in Chapter II, [Table 3](#), of the Ocean Plan; or
 - b. A 90 percent reduction in pollutant loading during storm events, for the Permittee's total discharges.

17. For any Permittee that has not completed the Core Discharge Monitoring Program and/or the Ocean Receiving Water and Reference Area Monitoring Program, the Permittee shall comply with section F6.1 and F6.2, as applicable, and shall include this monitoring in the updated ASBS Compliance Plan.

F4. ADDITIONAL REQUIREMENTS FOR WATERFRONT AND MARINE OPERATIONS PERMITTEES

The following requirements are adapted from the General Exception, section III.

1. Any Permittee engaged in waterfront and marine operations shall update its ASBS Compliance Plan and its Waterfront and Marine Operations Management Plan (updated Waterfront Plan) to include the updates identified below in paragraphs F4.1.a. – F4.1.d. Updates shall reflect any procedural changes since submittal of the existing Waterfront Plan under the previous permit. Updates may be added in redline/strikethrough format or as an addendum to the existing Waterfront Plan. If submitting an addendum, the Permittee shall include the existing ASBS Compliance Plan and Waterfront Plan. The updated Waterfront Plan shall be submitted to the applicable Regional Water Board Executive Officer.
 - a. Update the management measures/practices for any waste discharges associated with the operation and maintenance of vessels, moorings, piers, launch ramps, and cleaning stations in order to ensure that beneficial uses are protected and natural water quality is maintained in the affected ASBS.
 - b. Update the appropriate Management Measures, described in The Plan for [California's Nonpoint Source Pollution Control Program](https://www.waterboards.ca.gov/water_issues/programs/nps/plans_policies.html), (https://www.waterboards.ca.gov/water_issues/programs/nps/plans_policies.html) for marinas and recreational boating activities, or equivalent practices, to ensure that nonpoint source pollutant discharges do not alter natural water quality in the affected ASBS.
 - c. Update the Management Practices to address public education and outreach to ensure that the public is adequately informed that waste discharges to the affected ASBS are prohibited or limited by special conditions in the General Exception, Special Protections (General Exception, B). The management practices shall include appropriate signage, or similar measures, to inform the public of the ASBS restrictions and to identify the ASBS boundaries.
 - d. Update the Management Practices to address the prohibition against trash discharges to ASBS. The Management Practices shall include the provision of adequate trash receptacles for marine recreation areas, including parking areas, launch ramps, and docks. The revised Management Practices Plan shall also include appropriate Management Practices to ensure that the receptacles are adequately maintained and secured in order to prevent trash discharges into the ASBS. Appropriate Management Practices include

covering the trash receptacles to prevent trash from being windblown, staking or securing the trash receptacles so they don't tip over, and periodically emptying the receptacles to prevent overflow.

2. Conditions for Waterfront and Marine Operations Permittees
 - a. The discharge of chlorine, soaps, petroleum, other chemical contaminants, trash, fish offal, or human sewage to ASBS is prohibited. Sinks and fish cleaning stations are point source discharges of wastes and are prohibited from discharging into ASBS. Anthropogenic accumulations of discarded fouling organisms on the sea floor must be minimized.
 - b. Limited-term activities, such as the repair, renovation, or maintenance of waterfront facilities, including, but not limited to, piers, docks, moorings, and breakwaters, are authorized only in accordance with Chapter III.E.2 of the 2019 [Ocean Plan](#).
 - c. The applicable Regional Water Board may, for good cause, authorize additional time to comply with the Waterfront Plan. Good cause means a physical impossibility or lack of funding.

F5. ADDITIONAL REQUIREMENTS FOR PARKS AND RECREATION FACILITIES – UPDATED ASBS COMPLIANCE PLAN

The following requirements are adapted from the General Exception, section III.

1. Any Permittee engaged in parks and recreation facilities shall provide an update, as applicable, to the requirements listed below in F5.1.a through F5.1.f. The Permittee shall include a section in the updated ASBS Compliance Plan to address any changes to stormwater runoff from parks and recreation facilities. Updates shall reflect any procedural changes to the existing ASBS Plan, which was submitted under the previous permit. Updates may be in redline/strikethrough format or as an addendum to the existing ASBS Compliance Plan. If submitting an addendum, the Permittee shall include the existing ASBS Compliance Plan. If no updates are made to the existing ASBS Compliance Plan, the Permittee shall send a letter to the applicable Regional Water Board Executive Officer and shall upload the letter to SMART as an attachment. The updated ASBS Compliance Plan shall be submitted to the applicable Regional Water Board Executive Officer.
 - a. Update any newly-identified pollutant sources, including sediment sources, which may result in waste entering stormwater runoff. Pollutant sources include, but are not limited to, roadside rest areas and vistas, picnic areas, campgrounds, trash receptacles, maintenance facilities, park personnel housing, portable toilets, leach fields, fuel tanks, roads, piers, and boat launch facilities.
 - b. Update any new/revised best management measures or practices that will be implemented to control soil erosion (both temporary and permanent erosion

- controls) and reduce or eliminate pollutants in stormwater runoff in order to achieve and maintain natural ocean water quality conditions in the affected ASBS. The updated plan shall include any revisions to best management practices or management measures/practices to ensure that trails and culverts are maintained to prevent erosion and minimize waste discharges to ASBS.
- c. Update any revisions to best management practices or management measures/practices to prevent the discharge of pesticides or other chemicals, including agricultural chemicals, in stormwater runoff to the affected ASBS.
 - d. Update any revisions to best management practices or management measures/practices that address public education and outreach. The goal of these best management practices or management measures/practices is to ensure that the public is adequately informed that waste discharges to the affected ASBS are prohibited or limited by special conditions in the General Exception. The update shall include any revisions to best management practices or management measures/practices for signage at camping, picnicking, beach and roadside parking areas, and visitor centers, or other appropriate measures, which notify the public of any applicable requirements of the Special Protections as laid out in this Attachment and identify the ASBS boundaries.
 - e. Update and provide revisions to best management practices or management measures/practices that address the prohibition against the discharge of trash to ASBS. The best management practices or Management Measures/Practices shall include measures to ensure that adequate trash receptacles are available for public use at visitor facilities, including parking areas, and that the receptacles are adequately maintained to prevent trash discharges into the ASBS. Appropriate measures include covering trash receptacles to prevent trash from being windblown and periodically emptying the receptacles to prevent overflows.
 - f. Update any revisions to best management practices or management measures/practices to address runoff from parking areas and other developed features to ensure that the runoff does not alter natural ocean water quality in the affected ASBS. best management practices or Management Measures/Practices shall include measures to reduce pollutant loading in runoff to the ASBS through installation of natural area buffers (low impact development), treatment, or other appropriate measures.

F6. CORE DISCHARGE, OCEAN RECEIVING WATER, AND REFERENCE AREA MONITORING PROGRAMS

Sample locations and sampling periods must be determined considering safety issues. Sampling may be postponed upon notification to the applicable Regional Water Board Executive Officer if hazardous conditions prevail.

F6.1 Core Discharge Monitoring Program

The following Core Discharge Monitoring is required if the Permittee has not completed this monitoring as required under the previous permit.

1. General sampling requirements for timing and storm size:

Runoff must be collected during a storm event that is greater than 0.1 inch and generates runoff, and at least 72 hours from the previously measurable storm event. Runoff samples shall be collected when post-storm receiving water is sampled, and analyzed for the same constituents as receiving water and reference site samples as described below.

2. Runoff flow measurements

- a. For municipal/industrial stormwater outfalls in existence as of December 31, 2007, 18-inches (457 millimeters) or greater in diameter/width (including multiple outfall pipes in combination having a width of 18-inches, runoff flows must be measured or calculated, using a method acceptable to and approved by the State and Regional Water Boards.
- b. This will be reported annually for each precipitation season to the State and Regional Water Boards.

3. Runoff samples – storm events

- a. For outfalls equal to or greater than 18 inches (0.46 meters) in diameter or width:
 - (1) Samples of stormwater runoff shall be analyzed during the same storm as receiving water samples for oil and grease, total suspended solids, and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination; and
 - (2) Samples of stormwater runoff shall be analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.
 - (3) If a Permittee has no outfall greater than 36 inches, then stormwater runoff from the Permittee's largest outfall shall be further analyzed during the same storm as receiving water samples for Ocean Plan Table 3 metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates).
- b. For outfalls equal to or greater than 36 inches (0.91 meters) in diameter or width:
 - (1) Samples of stormwater runoff shall be analyzed during the same storm as receiving water samples for oil and grease, total suspended solids,

and, within the range of the southern sea otter indicator bacteria or some other measure of fecal contamination; and

- (2) Samples of stormwater runoff shall be further analyzed during the same storm as receiving water samples for Ocean Plan Table 3 metals for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates); and
 - (3) Samples of stormwater runoff shall be analyzed for critical stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.
- c. For a Permittee not participating in a regional monitoring program above, a minimum of the two largest outfalls or 20 percent of the larger outfalls, whichever is greater, shall be sampled (flow weighted composite samples) at least three times annually during wet weather (storm event) and analyzed for all Ocean Plan [Table 4](#) constituents, [Table 3](#) constituents for marine aquatic life protection (except for toxicity, only chronic toxicity for three species shall be required), DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, and Ocean Plan indicator bacteria. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one (the largest) such discharge shall be sampled annually in each Region.
4. The Executive Director of the State Water Board may reduce or suspend core monitoring once the storm runoff is fully characterized. The Executive Director of the State Water Board may require additional monitoring as appropriate.

F6.2 Ocean Receiving Water Monitoring Program and Reference Area Monitoring Program

The following Ocean Receiving Water Monitoring is required if the Permittee has not completed this monitoring as required under the previous permit. In addition to performing the Core Discharge Monitoring Program, all Permittees must perform ocean receiving water monitoring. In order to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS, Permittees may choose either (1) an individual monitoring program, or (2) participation in a regional integrated monitoring program.

1. *Individual Monitoring Program:*

The requirements listed below are for those Permittees who elect to perform an individual monitoring program to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within the affected ASBS. In addition to Core Discharge Monitoring, the following additional monitoring requirements shall be met:

- a. Three times annually, during wet weather (storm events), the receiving water at the point of discharge from the outfalls shall be sampled and analyzed for 2019 Ocean Plan Table 4 constituents, Table 3 constituents for marine aquatic life, DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, salinity, chronic toxicity (three species), and 2019 Ocean Plan indicator bacteria.

The sample location for the ocean receiving water shall be in the surf zone at the point of discharges; this must be at the same location where stormwater runoff is sampled. Receiving water shall be sampled at approximately the same time prior to (pre-storm) and during (or immediately after) the same storm (post storm). Reference water quality shall also be sampled and analyzed for the same constituents pre-storm and post-storm, during the same storms when receiving water is sampled. Reference stations will be determined by the State Water Board's Division of Water Quality and the applicable Regional Water Board(s).

- b. Sediment sampling shall occur at least three times during every five (5) year period. The subtidal sediment (sand or finer, if present) at the discharge shall be sampled and analyzed for Ocean Plan Table 3 constituents for marine aquatic life, DDT, PCBs, PAHs, pyrethroids, and OP pesticides. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed.
- c. A quantitative survey of intertidal benthic marine life shall be performed at the discharge and at a reference site. The Permittee shall perform a survey at least once every five (5) year period. The survey design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The results of the survey shall be completed and submitted to the State Water Board and Regional Water Board at least six months prior to the end of the permit cycle.
- d. Once during each five (5) year period, a bioaccumulation study shall be conducted to determine the concentrations of metals and synthetic organic pollutants at representative discharge sites and at representative reference sites. The study design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The bioaccumulation study may include California mussels (*Mytilus californianus*) and/or sand crabs (*Emerita analoga* or *Blepharipoda occidentalis*). Based on the study results, the Regional Water Board and the State Water Board's Division of Water Quality, may adjust the study design in subsequent permits, or add or modify additional test organisms (such as shore crabs or fish), or modify the study design appropriate for the area and best available sensitive measures of contaminant exposure.

- e. Marine Debris: Representative quantitative observations for trash by type and source shall be performed along the coast of the ASBS within the influence of the Permittee's outfalls. The design, including locations and frequency, of the marine debris observations is subject to approval by the Regional Water Board and State Water Board's Division of Water Quality.
- f. The monitoring requirements of the Individual Monitoring Program in this section are minimum requirements. After a minimum of one (1) year of continuous water quality monitoring of the discharges and ocean receiving waters, the Executive Officer of the applicable Regional Water Board (may require additional monitoring, or adjust, reduce or suspend receiving water and reference station monitoring..

2. *Regional Integrated Monitoring Program:*

Permittees may elect to participate in a regional integrated monitoring program, in lieu of an individual monitoring program described in section F6.2.1, above, to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS. This regional approach shall characterize natural ocean water quality, pre- and post-storm, in ocean reference areas near the mouths of identified open space watersheds and the effects of the discharges on natural ocean water quality (physical, chemical, and toxicity) in the ASBS receiving waters, and should include benthic marine aquatic life and bioaccumulation components. The design of the ASBS stratum of a regional integrated monitoring program may deviate from the otherwise prescribed individual monitoring program approach, above, if approved by the Regional Water Boards.

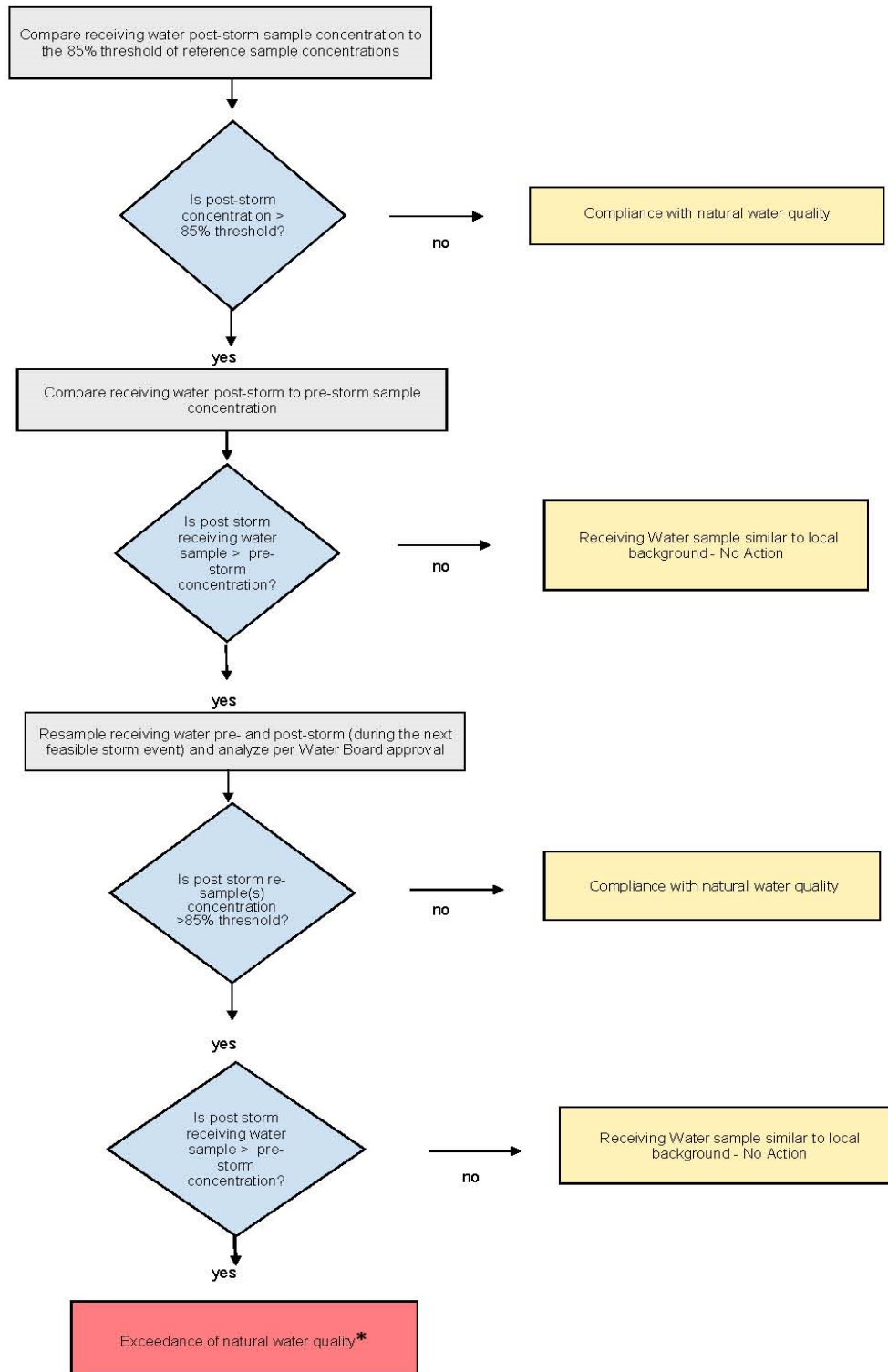
- a. Ocean reference areas shall be located at the drainages of flowing watersheds with minimal development (in no instance more than 10% development), and shall not be located in CWA Section 303(d) listed waterbodies or have tributaries that are 303(d) listed. Reference areas shall be free of wastewater discharges and anthropogenic non- stormwater runoff. A minimum of low threat storm runoff discharges (e.g. stream highway overpasses and campgrounds) may be allowed on a case-by-case basis.

Reference areas shall be located in the same region as the ASBS receiving water monitoring occurs. The reference areas for each Region are subject to approval by the participants in the regional monitoring program and the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean reference water samples must be collected from each station, each from a separate storm. A minimum of one reference location shall be sampled for each ASBS receiving water site sampled per responsible party. For parties discharging to ASBS in more

- than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.
- b. ASBS ocean receiving water must be sampled in the surf zone at the location where the runoff makes contact with ocean water (i.e. at “point zero”). Ocean receiving water stations must be representative of worst-case discharge conditions (i.e. co-located at a large drain greater than 36 inches, or if drains greater than 36 inches are not present in the ASBS then the largest drain greater than 18 inches.) Ocean receiving water stations are subject to approval by the participants in the regional monitoring program and the State Water Board’s Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean receiving water samples must be collected during each storm season from each station, each from a separate storm. A minimum of one receiving water location shall be sampled in each ASBS per responsible party in that ASBS. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.
 - c. Reference and receiving water sampling shall commence during the first full storm season following the adoption of these special conditions, and post-storm samples shall be collected when annual stormwater runoff is sampled. Sampling shall occur in a minimum of two storm seasons. For those ASBS Permittees that have already participated in the Southern California Bight 2008 ASBS regional monitoring effort, sampling may be limited to only one storm season.
 - d. Receiving water and reference samples shall be analyzed for the same constituents as stormwater runoff samples. At a minimum, constituents to be sampled and analyzed in reference and discharge receiving waters must include oil and grease, total suspended solids, Ocean Plan Table 3 metals for protection of marine life, Ocean Plan PAHs, pyrethroids, OP pesticides, ammonia, nitrate, phosphates, and critical life stage chronic toxicity for three species. In addition, within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination shall be analyzed.
3. Waterfront and Marine Operations: In addition to the above requirements for ocean receiving water monitoring, additional monitoring must be performed for marinas and boat launch and pier facilities:
- a. For all marina or mooring field operators, in mooring fields with 10 or more occupied moorings, the ocean receiving water must be sampled for Ocean Plan indicator bacteria, residual chlorine, copper, zinc, grease and oil, methylene blue active substances (MBAS), and ammonia nitrogen.

- (1) For mooring field operators opting for an individual monitoring program, above, this sampling must occur weekly (on the weekend) from May through October.
 - (2) For mooring field operators opting to participate in a regional integrated monitoring program, above, for submitting reports, this sampling must occur from May through October on a high weekend in each month. The Water Boards may allow a reduction in the frequency of sampling, through the regional monitoring program, after the first year of monitoring.
- b. For all mooring field operators, the subtidal sediment (sand or finer, if present) within the mooring fields and below piers shall be sampled and analyzed for Ocean Plan Table 3 metals (for marine aquatic life beneficial use), acute toxicity, PAHs, and tributyltin. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed. This sampling shall occur at least three times during a five (5) year period. For mooring field operators opting to participate in a regional integrated monitoring program, the Water Boards may allow a reduction in the frequency of sampling after the first sampling effort's results are assessed.

F7. FLOWCHART TO DETERMINE EXCEEDANCE OR COMPLIANCE: ASBS SPECIAL PROTECTIONS



F8.TABLES

The Table of 85th Percentile of Natural Ocean Water Quality Values of All Reference Area Monitoring Sites (Regional Monitoring Program) provides the reference water quality data by sampling region. Under the previous permit, three regions were selected and monitored for reference area monitoring: North Coast, South Coast, and Central Coast. Ocean reference areas were located at in areas free of wastewater discharges, anthropogenic non-storm water runoff, and other requirements as provided in the Glossary definition for “Ocean Reference Area Sampling.” The Permittee shall use these values when assessing exceedances of 85th Percentile of Natural Ocean Water Quality for the given reference area monitoring site.

Table of 85th Percentile of Natural Ocean Water Quality Values at Reference Area Monitoring Sites (for the Regional Monitoring Program)

Constituent	Units	North Coast Monitoring Sites	South Coast Monitoring Sites	Central Coast Monitoring Sites
Arsenic	mg/L	1.76	1.8	1.6410
Cadmium	mg/L	0.055	0.15	0.0607
Chromium	mg/L	4.864	1.9	1.7450
Copper	mg/L	2.056	1.5	1.1115
Lead	mg/L	0.548	0.5	0.2194
Mercury	mg/L	0.006	0.0006	4.2275
Nickel	mg/L	4.605	1.3	1.6666
Selenium	mg/L	0.029	0.003	0.1135
Silver	mg/L	0.130	0.08	0.6000
Zinc	mg/L	8.479	18.6	2.6577
Total Suspended Solids	mg/L	50.816	48	24
Fecal Coliform	Most probable number per 100 milliliters	Not Applicable	Not Applicable	143
Enterococcus	Most probable number per 100 milliliters	Not Applicable	Not Applicable	229
E.coli	Most probable number per 100 milliliters	Not Applicable	Not Applicable	125.5
Nitrate	mg/L	2.773	0.34	0.675
Orthophosphate	mg/L	0.09	0.100	0.08
Ammonia	mg/L	0.042	0.015	0
Urea	Blank cell	Not Applicable	Not Applicable	10
Sum of PAHs	mg/L	0.047	0.0125	0
Sum of OPs	mg/L	0.000	0.0006	0
Sum of Pyrethroids	mg/L	0.000	0.00675	0
Oil and Grease	mg/L	0	0.5	Not Applicable

2019 Ocean Plan Tables

Best management practices installed to control storm water runoff discharges (at the end-of-pipe) during a design storm shall be designed to achieve on average the either of the following target levels:

1. Constituents listed below for Table 3 Instantaneous Maximum Water Quality Objectives in the 2019 Ocean Plan; or
2. A 90% reduction in pollutant loading during storm events, for the Permittee’s total discharges.

2019 Ocean Table 3 Monitoring Constituent List

Constituent	Units
Arsenic	µg/L
Cadmium	µg/L
Chromium (hexavalent)	µg/L
Copper	µg/L
Lead	µg/L
Mercury	µg/L
Nickel	µg/L
Selenium	µg/L
Silver	µg/L
Zinc	µg/L
Cyanide	µg/L
Total Chlorine Residual	µg/L
Ammonia (as Nitrogen)	µg/L
Acute Toxicity	TUa
Chronic Toxicity	TUc
Phenolic Compounds (non-chlorinated)	µg/L
Chlorinated Phenolics	µg/L
Endosulfan	µg/L
Endrin	µg/L
Hexachlorocyclohexane (HCH)	µg/L

2019 Ocean Plan Table 4 Monitoring Constituent List

Constituent	Units
Grease and Oil	mg/L
Suspended Solids	mg/L
Settleable Solids	mL/L
Turbidity	NTU
pH	

F9. REPORTING

Beginning with October 15 after the effective date of this Order and thereafter annually by October 15 of each year, the Permittee shall submit its Annual ASBS Compliance Status report. Each report shall cover the period of July 1 through June 30 of each year. The report shall be submitted through SMARTS. The report shall include:

1. Description and status of compliance with each of the requirements in this Attachment, as follows:
 - a. All Permittees shall report status of compliance with sections F1 through F3, and F6 if completing initial monitoring or resampling in the case of an exceedance.
 - 1) Waterfront and marine operations Permittees shall additionally report compliance with section F4.
 - 2) Parks and recreation facilities Permittees shall additionally report compliance with each section F5.
2. Description of sampling or resampling results, including compliance or lack thereof with applicable monitoring data in the 85th Percentile of Natural Ocean Water Quality Values of [Reference Area Monitoring](#) Sites (Regional Monitoring Program) table.
3. Description, location, and status of installation of best management practices required as a result of exceedance of applicable 85th Percentile of Natural Ocean Water Quality Values of [Reference Area Monitoring](#) Sites (Regional Monitoring Program) table.
4. Description, location, and purpose of any low impact development structures installed during the reporting period.
5. Tabulated monitoring results indicating the location ID; status of compliance with natural ocean water quality; resampling results; and plans/schedule for resampling when an exceedance is detected. Tabulated monitoring results shall include the following:
 - a. ASBS name and location number (e.g., Ano Nuevo (15)), monitoring location ID number; the natural ocean water quality from the 85th Percentile of Natural Ocean Water Quality Values of [Reference Area Monitoring](#) Sites (Regional Monitoring Program) for that location and constituent.
 - b. Certified laboratory analysis shall be tabulated and reported as follows:
 - 1) Results detected above the method detection limit but below the reporting limit shall be reported as "DNQ" (detected but not quantified).
 - 2) DNQs shall be flagged with a "J" along with the estimated value, method detection limit, and reporting limit. Copies of certified analytical results shall be included as attachments.

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

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:

- Technical requirements for best management practices, and
- 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.

G1. DESIGN, CONSTRUCTION, AND MAINTENANCE OF BEST MANAGEMENT PRACTICES FOR TMDL POLLUTANT REDUCTION

The Permittee shall comply with best management practices design, construction, and maintenance requirements in Attachments D (Traditional Permittee Provisions) and E (Non-Traditional Permittee Provisions) of this Order.

G2. TMDL REPORTING REQUIREMENTS

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 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 to 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 time schedule order shall be submitted to the applicable Regional Water Board Executive Officer for review and consideration of approval.

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 Permittees: 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 waters 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 TMDL does not specify a final compliance deadline for dissolved oxygen and temperature.

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

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

G4.1.2 Lower Eel River Temperature and Sediment TMDL

Responsible Permittees: 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 Deadlines: Final compliance deadlines were not included in the TMDL; therefore, over the term of this Order, the Permittee shall implement actions to comply with this Order.

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

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.

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

Responsible Permittees: City of Belvedere, City of Larkspur, City of Mill Valley, City of Novato, City of Petaluma, City of San Rafael, City of Sausalito, City of Sonoma, Town of Corte Madera, Town of Fairfax, Town of Ross, City of San Anselmo, Town of Tiburon, County of Marin, County of Sonoma, City of Benicia

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

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.

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 Monitoring Requirements: 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. The City of Benicia has the additional option to collaborate with Phase I MS4 permittees in Fairfield and Vallejo. For data collected through such collaboration, California Department of Pesticide Regulation’s standard operating procedures and quality assurance/quality control methods may be used in place of the SWAMP comparability requirements for monitoring conducted to 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 resultant change would result in overall improvement of pesticide monitoring data collection.
3. Annual Dry Weather Receiving Water Monitoring - Toxicity in Water Column
 - a. Toxicity Field and Laboratory Methods – Permittees shall collect grab samples of receiving water using applicable SWAMP comparable methodology.
 - i. Samples shall be analyzed for the test organisms and methods listed in Table G4.2.1.a., below.

Table G4.2.1.a. Toxicity Analytical Procedures

Test Species	Test Endpoints	Units	U.S. EPA Analytical Method
Pimephales promelas (Fathead Minnow)	Larval Survival and Growth	Pass or Fail using TST, % Effect	EPA-821-R-02-013 EPA 833-R10-003
Ceriodaphnia dubia (Freshwater Crustacean)	Survival ^a	Pass or Fail, % Effect 25% Fails	EPA-821-R-02-013 EPA 833-R-10-003

Test Species	Test Endpoints	Units	U.S. EPA Analytical Method
Ceriodaphnia dubia (Freshwater Crustacean)	Reproduction	Pass or Fail using TST, % Effect	EPA-821-R-02-013 EPA 833-R-10-003
Selenastrum capricornutum (Green Algae)	Growth	Pass or Fail using TST, % Effect	EPA-821-R-02-013 EPA 833-R-10-003
Hyalella azteca (Freshwater Amphipod)	Survival	Pass or Fail using TST, % Effect ^b	EPA-821-R-02-012 EPA 833-R-10-003
Chironomus dilutus (midge)	Survival	Pass or Fail using TST, % Effect ^b	EPA-821-R-02-012 EPA 833-R-10-003

Table Notes

TST is 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.

- ii. Toxicity shall be evaluated using the Test of Significant Toxicity (TST) statistical approach. Each sample shall be subject to determination of "Pass" or "Fail" and shall indicate "Percent Effect" from toxicity using non-diluted samples.
 - iii. The Test of Significant Toxicity null hypothesis shall be "mean sample response $\leq 0.75 \times$ 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: $((\text{Mean control response} - \text{Mean sample response}) \div \text{Mean control response}) \times 100$.
- b. Sample Locations – Permittee’s sample locations may be selected based on locations where toxicity could be likely, to coincide with creek restoration sites, or to resample 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 – Permittees shall collect samples annually in the dry season at least the minimum number of sample sites shown in Table G4.2.1.b.

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

County Where Permittee is Located	Minimum Number of Sample Sites per Year	Minimum Number of Sampling Events per Year
Marin County	1	1
Napa County	1	1
Sonoma County	1	1
Solano County	1	1

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

- a. Field and Laboratory Methods – The Permittee shall collect grab samples of creek sediment using applicable SWAMP-comparable collection methods. 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 U.S. EPA methods listed in 40 C.F.R. subchapter D, part 136.

Table G4.2.1.c. Toxicity and Pollutants Analytical Procedures

Test Species or Pollutant	Units	Analytical Method
Hyalella azteca and Chironomus dilutus survival ^a	Pass/Fail using TST, % Effect ^a	EPA-600/R-99-064
Pyrethroids: bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin	ppb	EPA 3540C followed by EPA 8270D by NCI-GCMS
Fipronil and its degradates (fipronil-sulfone, fipronil-desulfinyl, fipronil sulfide)	ppb	EPA 1699
Total PAHs	µg/L	
Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Zinc	µg/L	
Total organic carbon	mg/L	
Grain size	grain-size diameters in millimeters and converted to phi units	

Table Notes

- ^a 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. The false positive rate (beta error) is 0.05 and the negative rate (alpha error) is 0.25 for these test methods.

- b. 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 could be likely, to coincide with bioassessment sites, or to resample a location where toxicity has been found in the past, for example.
- c. Annual Sediment Sampling, Number of Sites, Number of Samples, and Frequency – Permittees shall collect at least the minimum number of sediment samples annually as shown in Table G4.2.1.d:

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

County Where Permittee is Located	Minimum Frequency	Minimum Number of Samples	Minimum Number Sites
Marin County	Once per year	1	1
Napa County	Once per year	1	1
Sonoma County	Once per year	1	1
Solano County	Once per year	1	1

5. Wet Weather Receiving Water 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 G4.2.1.c for pyrethroids, fipronil and degradates, and toxicity. For imidacloprid, permittees shall specify an analytical method that achieves a reporting level of 0.01 ppb
 - i. Pyrethroids: bifenthrin, cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin;
 - ii. Fipronil and its degradates fipronil-sulfone, fipronil-desulfinyl, fipronil sulfide and fipronil amide (amide is optional – perform if the laboratory offers the suite);
 - iii. Toxicity; and
 - iv. Imidacloprid.
- b. Annual Receiving Water Monitoring Locations and Timing – Permittees shall collect samples annually 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 Receiving Water Monitoring Frequency, Timeframe, and Number of Samples

- i. 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 and a minimum of one (1) sample collected annually.
- ii. If sampling is conducted by collaboration with countywide stormwater programs, the Permittee shall collect at least the minimum number of samples annually as shown in the table, below:

County Where Permittee is Located	Minimum Number of Sampling Events
Marin County	1 per year
Napa County	1 per year
Sonoma County	1 every other year
Solano County	1 every other year

TMDL Implementation Requirements: The Permittee may coordinate with the Bay Area Storm Water Management Agencies Association, 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.

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 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 [ReScope California’s Landscape Maintenance Qualification Training Program](#), provided both structural and landscape pest control training are provided.

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, and 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 their 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 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 Regulation surface water protection regulations for outdoor, nonagricultural use of pyrethroid pesticides by any person performing pest control for hire (<https://www.cdpr.ca.gov/docs/legbills/calcode/040501.htm#a6970>).
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 \(BAMSC\)](#); [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 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 evaluate its Integrated Pest Management efforts for effectiveness of efforts appear and how improvement could be made, as follows:

- a. Evaluate the effectiveness of the pesticide control measures implemented by their 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.

7. Reporting

In each Annual Report (described in the Reporting section of Attachments D or E as applicable) due by October 15 of each year, 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. 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 their 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.

b. Reporting for Training Municipal Employees

- 1) In each Annual Report, the Permittee shall report the percentage

of municipal employees who 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 Regional Water Board or State Water Board staff, the Permittee shall submit training materials (e.g., course outline, date, and list of attendees) upon request.

c. 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.

d. 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.

e. Reporting of 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 shall be described in Annual Reports prepared at that respective level; reiteration in individual Permittee reports is discouraged. Reports shall include a brief description of outreach conducted in each of the three categories, including level of effort, messages and target audience.

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

Beginning with the first Annual Report, due the first October 15 after the effective date, the Permittee shall annually report its evaluation. The evaluation shall include an assessment of the effectiveness of their 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 shall be evaluated at that respective level; reiteration in individual Permittee evaluation reports is discouraged.

Final Compliance Deadline: The final compliance deadline for attainment of the watershed allocations is not specified in the TMDL.

TMDL Reporting Requirements: Submit the annual reports and the TMDL Demonstration of Compliance Report per section G2, above.

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 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 their 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 to minimize 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. 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 three 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 regarding 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 their 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 their 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. Evaluate the potential bacteria-reduction benefit of prioritizing trash control efforts required in areas where trash generation may be contributing to bacteria exceedances in local surface waters. Where a benefit appears significant, reprioritize trash control actions accordingly.
- b. Focus some trash reduction efforts in areas where trash generation likely contributes to bacteria exceedances in local surface waters.

8. Compliance With Receiving Water Limitations

The Permittee shall:

- a. Determine whether discharges from their MS4 causes or contributes to exceedances of bacteria water quality objectives in receiving waters after implementation of control measures. The Permittee are expected to comply with the wasteload allocations by the final deadline in the TMDL. Where a final deadline for compliance with wasteload allocations is not identified in the TMDL, the Permittee is expected to comply with their bacteria or pathogen wasteload allocations within 5 years of the effective date of this Order and demonstrate compliance with the wasteload allocations as specified in the requirements for the TMDL Demonstration of Compliance Reports in Attachments D and E of this Order.

If wasteload allocations are not met by the deadlines, despite a diligent effort to quantify levels, the Permittee shall identify sources of bacteria, document that controls have been completed, and submit a

plan for additional actions to attain the receiving water limitations by the Year 5 Annual Report.

- b. Provide a comprehensive assessment of bacteria sources and bacteria controls to demonstrate compliance with receiving water limitations for applicable bacteria water quality objectives. If compliance cannot be achieved within 5 years of the effective date of this Order, then 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 receiving water limitations 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;
 - c) Description of specific bacteria sources and/or specific geographic areas that receive implementation of existing control measures, as well as. recommended new, modified, or enhanced control 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, as well as. new, modified, or enhanced control that were evaluated or implemented;
 - d) Determination if bacteria receiving water limitations have or will be met, by the end of reporting Year 5; and
 - e) If bacteria wasteload allocations will not be 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 to attain bacteria wasteload allocations 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 2 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 the 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 St. Helena, City of Napa, City of Yountville, County of Napa

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. *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.
3. *Illicit Discharge Detection and Elimination.* Implement strategies to detect and eliminate Illicit discharges (whether mistaken or deliberate) of sewage to the Napa River.
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 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 described 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
Napa River at Zinfandel Lane
Napa River at Calistoga Community Center
Browns Valley Creek at Browns Valley Road
Browns Valley Creek at Borrette Lane
Murphy Creek at Coombsville Road
Murphy Creek at upstream location to be determined ^a
Salvador Channel at Solano Avenue

Baseline Monitoring Sites (sites will be determined by Water Board staff in coordination with the Permittee)
Salvador Channel at Dry Creek Road
Four additional tributaries to be determined ^a , rotated each year

Final Compliance Deadlines: The TMDL does not include a final compliance deadline. This is an on-going effort that is implemented throughout the term of this Order.

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 above). In the TMDL Annual Report (see section G2), the Permittee must demonstrate that they are in compliance with specified implementation measures.

G4.2.4 Sonoma Creek Pathogens TMDL

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

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, as well as continue to implement or enhance implementation of the following actions as described above in the General Approach for Controlling Bacteria in MS4 Discharges:

1. *Public Participation and Outreach*. Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform 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 coliform loading from pet waste.
3. *Illicit Discharge Detection and Elimination*. Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Sonoma Creek.
4. *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's Quality Assurance Management Plan for the Surface Water Ambient Monitoring Program.

Table G4.2.4. Sonoma Creek Watershed Monitoring Sites

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 Deadlines: The TMDL does not include a final compliance deadline. Therefore, this is an on-going effort that is implemented throughout the term of this Order.

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, 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 County Water Agency: The Sonoma County Water Agency shall:

1. Continue to implement actions as specified in Sonoma County Water Agency's updated Storm Water Management Plan. A previous version of 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 County Water Agency: The Sonoma County Water Agency 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 Permittees: Marin County

Impaired Water Bodies: Tomales Bay, Lagunitas Creek, Walker Creek, Olema 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 Deadlines: The TMDL does not specify a compliance deadline. Therefore, this is an on-going effort that is implemented throughout the term of this Order.

TMDL Reporting Requirements: Submit the TMDL Annual Reports and the TMDL Demonstration of Compliance Report per section G2, above. 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, Town of Tiburon, County of Marin

Impaired Water Body: Richardson Bay

TMDL Monitoring Requirements: The Permittee 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 Deadlines: A final compliance deadline is not specified. The implementing Permittees are required to continue implementation of pathogen reduction measures and monitoring for the term of this Order and through any administered extension of the Order.

TMDL Reporting Requirements: Submit the TMDL Annual Reports and the TMDL Demonstration of Compliance Report per section G2, above. In the TMDL Annual Reports, report the status of compliance with wasteload

allocations specified in section G4.2.2, the General Approach for Controlling Bacteria in MS4, above.

G4.2.7 San Francisco Bay Beaches Bacteria, San Francisco Bay Beaches Bacteria TMDL

Responsible Permittees: Candlestick Point State Recreation Area, California State Parks; San Francisco Public Utilities Commission, San Francisco; Golden Gate National Recreation Area, National Park Service; China Camp State Park, California Department of Parks and Recreation; and McNears Beach Park, County of Marin

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; Parkside Aquatic and Lakeshore beaches on Marina Lagoon, City of San Mateo; China Camp Beach, State Park, Marin County, and McNears Beach, Marin County Parks, Marin County

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 Deadlines: A final compliance deadline is not specified. The implementing Permittees are required to continue the General Approach for Controlling Bacteria in MS4 Discharges, described in section G4.2.2, above.

TMDL Reporting Requirements: Submit the TMDL Annual Reports and the TMDL Demonstration of Compliance Report per section G2, above. In the TMDL Annual Reports, reporting the required information under section G4.2.2 above, the Permittee shall demonstrate compliance with specified implementation measures.

G4.2.8 Petaluma River Bacteria TMDL

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

Impaired Water Body: The entire Petaluma River, San Antonio Creek, Lichau Creek, Willow Brook, Lynch Creek, Adobe Creek, and Ellis Creek

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 implement 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 their wasteload allocations.

TMDL Implementation Requirements: The Permittee shall implement the actions described in section G4.2.2, above, the General Approach for Controlling Bacteria in MS4 Discharges. In addition, Permittee shall implement or enhance implementation of the following actions to prevent or reduce discharges of bacteria from the MS4 to meet the municipal stormwater runoff TMDL wasteload allocations. To comply with this element the Permittee shall:

1. *Initial Report.* Submit an Initial Report to the Water Board, within 30 days from the effective date of this Order, describing current actions being implemented to prevent or reduce discharges of bacteria to storm sewer systems. The report shall also include schedule, timeline, or frequency of implementation activities for all future actions, as appropriate.
2. *Follow-Up Report.* Submit a follow up Report and Implementation plan, within 90 days from the effective date of this Order, which includes the additional best management practices and timelines for addressing the following, as appropriate:
 - a. Potential illicit discharges into the storm sewer system from the sanitary sewer collection system that includes the following:
 - 1) A timeline for evaluation and control of at least 20 percent of illicit discharges from the sanitary sewer collection system illicit connections to the storm sewer system each year,
 - 2) A map of the entire storm sewer system and the portions scheduled for inspection each year;
 - 3) A timeline for completion of the annual incremental evaluation and the evaluation of the entire system; and
 - 4) The timeline should include completion of this requirement no later than May 10, 2026.
 - b. Potential pet waste discharges into the storm sewer system that includes the following:
 - 1) A timeline for implementation of a visual inspection program to identify high pet waste accumulation areas and development of a cleanup plan for these areas, including specific actions before winter rains;
 - 2) Location and timeline for installation of new or additional dog waste cleanup signs, waste bag dispensers, and trash bins in high dog waste accumulation areas;

- 3) A timeline for evaluation and improvement of the service frequency of dog waste bins, as needed; and
- 4) A timeline for development and implementation of a comprehensive pet waste public outreach and education campaign that, considers the following:
 - a) Establishment of a new public pet waste management stakeholder group (e.g., formal, or informal dog owners club), if one or more does not exist;
 - b) 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;
 - c) 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;
 - d) Adding to or maintaining a web page on its website with information on the TMDL and the water quality monitoring and best management practices implementation activities, as well as information about proper pet waste management and the impact of improperly deposited waste on water quality of the River and its tributaries and public health;
 - e) Creating and implementing a 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;
 - f) Participating in local events and festivals to distribute pet waste management materials (educational fliers, dog waste bags, etc.); and
 - g) Implementation of comprehensive waste public outreach and education campaign shall begin no later than 90 days from the effective date of this Order.
- c. Discharges and stormwater discharges from the Petaluma Marina, a facility owned and operated by the City of Petaluma, which includes the following:

- 1) A timeline for implementation or enhancement of “no dumping” education efforts to vessel owners, to occur no later than 180 days from the effective date of this Order;
 - 2) A timeline for evaluation and assurance of adequacy and proper performance of sewage collection systems (sewage dump stations, sewage pumpout stations, sewer lines, etc.) for vessel marinas, to occur no later than 180 days from the effective date of this Order; and
 - 3) A timeline for Installation, as needed, of an adequate number of sewage pumpout and dump stations by May 10, 2026.
- d. Discharges and stormwater discharges associated with unsheltered homeless populations, such as those living in tents, other outdoor shelters, and recreational vehicles (RVs), that are a potential source of the high bacteria levels observed in the Watershed that includes the following:
- 1) A timeline for implementation of appropriate control measures in areas where informal tent or small cabin encampments occur near streams with best management practices to control discharges of trash and human waste;
 - 2) A timeline for provision to informal tent encampments and RVs of trash pickup services, porta potties or other sanitary services, and mobile pumpout services as needed;
 - 3) A timeline for targeted stormwater channel cleanups; and
 - 4) A timeline for outreach to encampment residents and RV occupants and owners.
 - 5) Timeline shall include implementation of all items i-iv within five years of the effective date of this Order.
 - 6) Practices that harm or criminalize unsheltered homeless residents, such as encampment sweeps, will not be recognized when considering compliance with this Order.
3. Monitoring Plan and Requirements

Within 90 days of the effective date of this Order, the Permittee shall submit a bacteria water quality monitoring plan for the Petaluma River and its tributaries for review and consideration of approval by the San Francisco Bay Water Board Executive Officer. The monitoring plan must be designed to demonstrate the causing or contributing factors to the impairment of the Petaluma River and its tributaries. The objectives of this monitoring shall include 1) better characterization of fecal indicator

bacteria contributions from respective sources, 2) assessment of control measures effectiveness, and 3) assessment of progress towards attainment of the TMDL wasteload allocations. The Permittees are encouraged to collaborate with each other on a single cooperative water quality monitoring plan. The Permittee shall:

- a. Initiate the monitoring plan within 6 months from the effective date of this Order;
- b. Conduct annual monitoring;
- c. Use the methods described in [The California Microbial Source Identification Manual: A Tiered Approach to Identifying Fecal Pollution Sources to Beaches. Southern California Coastal Water Research Project \(Griffin 2013\)](#);
- d. Submit monitoring data that complies with or is comparable to the Surface Water Ambient Monitoring Program comparable. Minimum data quality shall be consistent with the latest version of the Surface Water Ambient Monitoring Program Quality Assurance Program Plan for applicable parameters, including data quality objectives, field and laboratory blanks, field duplicates, laboratory spikes, and clean techniques, using the most recent Surface Water Ambient Monitoring Program Quality Assurance Program Plan Standard Operating Procedures;
- e. Include a sampling frequency and spatial locations to reliably detect changes in water quality resulting from management actions;
- f. Include all 10 monitoring stations that are within the City of Petaluma Boundary (station codes 206PET355, 206PET350, 206PET315, 206PET310, 206PET265, 206PET260, 206PET215, 206PET205, 206PET130, and 206PET098) and add a minimum of five additional stations to achieve better spatial resolution, as shown in Table G4.2.8,⁴ below;
- g. Assess the magnitude of applicable fecal indicator bacteria constituents used as the TMDL numeric targets (i.e., *Escherichia coli* for fresh water and Enterococcus for saline water);
- h. Consider including source-specific fecal bacteria (e.g., Bacteroides) sampling to better identify and track sources of fecal pollution in the watershed, especially where bacteria hotspots are noted;

⁴ From the [Staff Report](#) for Total Maximum Daily Load for Bacteria In Petaluma River, Table 5.1 - Water Quality Monitoring Stations.

- i. For at least six existing trend sites (Station IDs 206PET350, 206PET315, 206PET310, 206PET260, 206PET205, 206PET98⁵), include a minimum of five monitoring events within a six-week interval in the dry season and a minimum of five monitoring events within a six-week interval in the wet season to adequately characterize fecal indicator bacteria levels and their geometric means during flow conditions in both dry and wet seasons;
- j. For each monitoring event, include sampling stations at major tributaries to the Petaluma River’s main stem at locations associated with known or suspected bacteria sources or where previous water quality data were collected, to better characterize bacteria inputs from different subwatersheds;
- k. Include monitoring of fecal indicator bacteria discharges direct from a source (e.g., stormwater outfalls, and City of Petaluma Marina), to characterize and identify their contributions and to use in a trend analysis showing reductions from implementation of best management practices;
- l. Include spatially intensive hotspot monitoring along particular reaches with high fecal indicator bacteria concentrations, to identify proximate sources in urban areas, such as municipal stormwater runoff, dry season discharges from storm drains, dog walking areas or parks, and homeless encampments; and
- m. Be iterative in nature and allow for flexibility of hotspot sampling design and details in future years. In subsequent years of monitoring, based on the results of the previous monitoring, alternative sampling stations may be targeted, sampling intensities may be modified, and sampling frequencies may be adjusted, as necessary.

Table G4.2.8. Monitoring Stations

Station Code	Station Name	Station Description	Latitude	Longitude
206PET400	Lichau-400	Lichau Creek - at Penngrove Park	38.294312	-122.666254
206PET393	Willow-393	Willow Brook – 890 m upstream of Lichau Creek confluence	38.285731	-122.65625
206PET355	Lichau-355	Lichau Creek - at N McDowell Blvd 650 m upstream of Petaluma River confluence	38.277545	-122.672016

⁵ From Table 5.1 - Water Quality Monitoring Stations in the [Staff Report](#) for Total Maximum Daily Load for Bacteria In Petaluma River.

Station Code	Station Name	Station Description	Latitude	Longitude
206PET350	Pet-350	Petaluma River – 715 m upstream of Petaluma Blvd N bridge. Just downstream of Rainsville Rd bridge	38.271718	-122.676919
206PET315	Pet-315	Petaluma River - Just downstream of Corona Rd Bridge	38.26098	-122.65982
206PET310	Pet-310	Petaluma River - Petaluma Village Premium Outlet Mall, just downstream of bridge leading into mall	38.25539	-122.650371
206PET265	Lynch-265	Lynch Creek 591 m upstream of Petaluma River confluence	38.25174	-122.633153
206PET260	Pet-260	Petaluma River – 100 m upstream of Payran Street bridge	38.246232	-122.637995
206PET215	Trib-215	Unnamed Creek – 220 m upstream of confluence with Pet River, 60 m below Ellis St bridge	38.2458	-122.635577
206PET205	Pet-205	Petaluma River - Just upstream of E. Washington St bridge	38.236157	-122.640363
206PET130	Adobe-130	Adobe Creek - Ely Blvd crossing, near Fairway Meadows Golf Course	38.242536	-122.594417
206PET098	Pet-98	Petaluma River – 100 m downstream of confluence with Adobe Creek	38.223164	-122.605189
206PET090	Ellis-90	Ellis Creek - 1.7 mi upstream of Petaluma River confluence. At Ely Rd crossing.	38.233155	-122.577665
206PET070	San A.-70	San Antonio Creek - Just downstream of Chileno Valley Rd bridge crossing	38.19838	-122.704343
206PET060	San A.-60	San Antonio Creek - Just downstream of Point Reyes Petaluma Rd bridge crossing	38.187549	-122.664172
206PET010	San A.-10	San Antonio Creek- upstream of San Antonio Rd bridge crossing	38.180759	-122.60322
206PET007	Pet-7	Petaluma River - Lakeville Marina dock	38.197109	-122.547627
206PET002	Pet-2	Petaluma River - Black Point Boat Lunch dock	38.114621	-122.506072

4. Water Quality Monitoring Reporting

- a. In the annual reports per section G2, above, the Permittee shall submit a comprehensive Water Quality Monitoring Report reporting on 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? Do control measures appear to be reducing bacteria?
- c. As appropriate, the Report shall include the following:
- 1) A data tables section (immediately following the Table of Contents) that includes all the data collected pursuant to this requirement and contains the following information pertaining to the foregoing monitoring period:
 - a) A map showing all monitoring locations;
 - b) Immediately following the map, 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;
 - c) 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/result for each constituent analyzed. Constituents that exceed applicable water quality objectives shall be highlighted.
 - 2) Include a statement of the data quality for all data.
 - 3) 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.
 - 4) 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 regarding pollutant sources, trends, and best management practice effectiveness;
 - c) Identify and prioritize water quality problems;
 - d) Identify potential sources of water quality problems;
 - e) Describe follow-up management actions to address areas with high bacteria levels;
 - f) Evaluate the effectiveness of existing control measures; and
 - g) Identify management actions needed to address water quality problems.
- 5) Report on attainment of the wasteload allocations specified in General Approach for Controlling Bacteria in MS4 Discharges section VIII.

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 Deadlines: Wasteload allocations are required to be met by May 10, 2027.

G4.2.9 Napa River Sediment TMDL

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

Impaired Water Body: Napa River

TMDL Implementation Requirements: The Permittee shall implement the following:

1. Implementation of Sediment Wasteload Allocations
The Permittee shall comply with the requirements in this TMDL section and the Order.
2. Implementation of Sediment Load Allocations
 - 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 continue to implement:

- 1) Continue to implement and update best management practices for maintenance of unimproved (dirt and/or gravel) roads to ensure that the LA will be met, and implement these best management practices,
 - 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 unpaved roads and best management practices to ensure attainment of the load 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 TMDL does not specify a final compliance deadline. Therefore, implementation shall continue for the term of this Order.

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 the section G2 and in Attachments D or E.

G4.2.10 Sonoma Creek Watershed Sediment TMDL

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

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 their Stormwater Management Plans approved under the prior 2003 General Permit (State Water Board Order 2003-0005-DWQ) to attenuate peak flows and durations from new and redevelopment projects. Implementation requirements for implementation actions are incorporated herein by reference. The Permittee may propose amendments to those Implementation Actions by submitting an updated Stormwater Management Plan to the Regional Water Board Executive Office.

2. Implementation of Sediment Load Allocation

To attain the shared load allocation of 2,100 tons per year, the Permittee shall implement 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 implement the following actions:

- 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 schedule for the retrofit and/or replacement of high priority crossings/culverts for consideration of approval by the San Francisco Bay Water Board Executive Officer for approval.
 - d. The Permittee has identified:
 - 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.
 - e. The Permittee shall:
 - 1) Replace 24 of the highest priority culverts within the first 5 years of the permit term.
 - 2) Implement supplemental erosion control and revegetation at 9 road sites.
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.
 4. Within 4 years of the effective date of this Order, the Permittee shall demonstrate compliance with the wasteload allocations per the requirements in the section titled TMDL Demonstration of Compliance Report found in Attachments D and E.

TMDL Implementation Requirements For Sonoma County Water Agency:

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 requirements for implementation actions 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 Regional Water Board.
2. Report progress on TMDL implementation measures in each Annual Report.

TMDL Final Compliance Deadline: The TMDL does not specify a final deadline of compliance with the wasteload and load allocation. Therefore, within six 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

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

Impaired Water Body: Suisun Bay, Carquinez Strait, San Pablo Bay, Richardson Bay, Central and Lower San Francisco Bay, San Francisco Central Basin, Mission Creek; Oakland Inner Harbor (Fruitvale site, South San Francisco Bay Pacific Dry-Dock Yard 1 Site)

TMDL Monitoring Requirements: Monitoring shall demonstrate progress toward attainment of the TMDL target. Monitoring shall be conducted by maintaining discharger-funded Regional Monitoring Program monitoring of polychlorinated biphenyls in San Francisco Bay fish, sediments, and water at a spatial scale and frequency to track trends in the decline of PCBs in the Bay.

TMDL Implementation Requirements:

1. The Permittee shall implement control measures on a pilot scale to determine effectiveness and technical feasibility of best management practices and control measures.
2. Permittees shall develop and implement a monitoring plan to quantify PCB urban stormwater runoff loads and the load reductions achieved through treatment, source control, and other actions. The Permittee shall submit the monitoring plan to the San Francisco Bay Water Board Executive Officer.
3. The Permittee has a responsibility to oversee PCB discharges within its MS4 jurisdiction. If it is determined that a source is substantially contributing to PCB loads to the Bay or a source is outside the Permittee's jurisdiction or authority, then the San Francisco Bay Water Board Executive Officer will consider a request from a Permittee, which may include an allocation, load reduction, and/or other regulatory requirements for the source in question.

Final Compliance Deadline: The final compliance deadline is March 29, 2030.

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.

G4.2.12 San Francisco Bay Mercury TMDL

Responsible Permittees: City of American Canyon, Sonoma County, Napa County, Marin County, Solano County, San Francisco County.

Impaired Water Body: Sacramento-San Joaquin River Delta (within San Francisco Bay region), Suisun Bay, Carquinez Strait, San Pablo Bay, Richardson Bay, Central San Francisco Bay, Lower San Francisco Bay, South San Francisco Bay (including the Lower South Bay), Castro Cove (part of San Pablo Bay), Oakland Inner Harbor (part of Central San Francisco Bay), San Leandro Bay (part of Central San Francisco Bay).

Mercury Control Plan: The Permittee shall develop and implement a Mercury Control Plan to investigate sources and discharges and to implement best management practices and control measures designed to achieve the mercury allocations or accomplish the load reductions derived from the allocations. The Mercury Control Plan shall

1. Submit the Mercury Control Plan to the San Francisco Bay Water Board Executive Officer.

2. Include a sampling and monitoring system to quantify either mercury loads or loads reduced through treatment, source control, and other management efforts. The monitoring system shall include methods to investigate land areas that likely contribute to mercury in the Permittees storm sewer system. Include monitoring for methylmercury in discharges. Include analytical methods and reporting limits.
3. Include best management practices or control measures to control the source in areas found to contribute substantial amounts or where high mercury concentrations are found (i.e., sediment concentrations greater than 0.5 mg mercury per kilogram).
4. Include operation and maintenance activities in the street or the storm drain infrastructure adjacent to any mercury source property.
5. Participate in studies aimed at better understanding of mercury fate, transport, and biological uptake in San Francisco Bay and tidal areas.
6. Collaborate with Caltrans to develop an equitable allocation-sharing scheme that reflects Caltrans load reduction responsibility in consultation with the Permittee. Alternatively, Caltrans may choose to implement load reduction actions on a watershed or regionwide basis in lieu of sharing a portion of an urban runoff management agency's allocation. In such a case, the Water Board will consider a separate allocation for Caltrans for which they may demonstrate progress toward attaining an allocation or load reduction in the same manner mentioned previously for municipal programs

TDML 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 the section G2 and in Attachments D or E.

The Permittee shall report the following in its annual report as required under section G2, above:

1. Evaluate the spatial extent, magnitude, and cause of mercury contamination for locations where elevated mercury concentrations were identified;
2. Provide the status and extent of the mercury source control program, including best management practices;
3. Document any collaboration efforts with Caltrans for allocation-sharing.
4. Document compliance with the Mercury Control Plan and document either mercury loads discharged, or loads reduced through ongoing pollution prevention and control activities; and

- a. Demonstrate progress toward attainment of the wasteload allocations,⁶ below, by using one of the following methods: quantify the annual average mercury load reduced through implementing of (i) pollution prevention activities, and (ii) source and treatment controls.
- b. Quantify the mercury load as a rolling five-year annual average using data on flow and water column mercury concentrations.
- c. Quantitatively demonstrate that the mercury concentration of suspended sediment that best represents sediment discharged with urban runoff is below the suspended sediment target.

Table G4.2.12. Wasteload Allocations for Mercury in Urban Stormwater Discharges

Entity	Allocation (kg/yr)	Load Reduction (kg/yr)
Sonoma County area	1.6	1.5
Napa County area	1.6	1.5
Marin County area	3.3	3.2
Solano County area	0.81	0.77
San Francisco County area	8.8	8.4
Total	16.11	15.37

Permittees have a responsibility to oversee various discharges within the agencies’ geographic boundaries. However, if it is determined that a source is substantially contributing to mercury loads to the Bay or is outside the jurisdiction or authority of an agency the Water Board will consider a request from an urban runoff management agency which may include an allocation, load reduction, and/or other regulatory requirements for the source in question.

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.

⁶ From [San Francisco Bay Water Board Basin Plan](#), Table 7.2.2-2

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 catchment⁷ 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 combinations identified below for each TMDL. 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 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 Wasteload Allocation Attainment Plan shall include the following components:

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.

⁷ An area of land where water collects when it rains, often bounded by hills.

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 practices, 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 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.

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. 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 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 Waste Load 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.

G4.3.1.1 Long-Term Assurance

Once the Permittee has demonstrated full wasteload allocation attainment at a catchment scale, the Permittee shall update the Waste Load 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.

G4.3.1.2 Wasteload Allocation Attainment Plan Submittal, Approval, Commencement, and Revision Process

1. 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.
2. 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.
3. 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.

4. 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.

G4.3.1.3 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:

1. A description of actions taken to develop and implement best management practices per requirements this Order's Wasteload Allocation Attainment Plan.
2. A description of actions planned for the upcoming reporting year to develop and implement best management practices.
3. A description of all implemented best management practices, including respective treated area and connected impervious area.
4. A map showing the location of each planned and implemented best management practice, with respective treated area and connected impervious area.
5. An analysis of documented and estimated wasteload removal, summarized by catchment, detailing progress towards attaining interim targets and final wasteload allocations.
6. 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, Los Osos Community Services District, County of San Luis Obispo

Impaired Water Body: Morro Bay, Chorro Creek, Los Osos Creek, 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 their 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 Body: Watsonville Slough, Struve Slough, Harkins Slough, Gallighan Slough, Hanson 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 their wasteload allocation is achieved. The Waste Load 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 Deadlines: 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 Body: Pajaro River, San Benito River, Llagas Creek, Tequesquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, Pachecho Creek, Miller's Canal

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 their 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 Permittees: County of San Luis Obispo

Impaired Water Body: Morro Bay, Los Osos Creek, Chorro Creek, Dairy Creek, Pennington Creek, and 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 their 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 Body: San Lorenzo River, Carbonera Creek, Lompico Creek, 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 their 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

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

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

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. The Permittee shall submit the TMDL Demonstration of Compliance Report as specified in section G2.

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

G4.3.8 TMDL for Pathogens in San Luis Obispo Creek

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

Impaired Water Body: San Luis Obispo Creek, Stenner Creek, Brizzolari 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 their 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 assure ongoing attainment of their 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: City of San Luis Obispo, County of San Luis Obispo, California Polytechnic State University, San Luis Obispo campus

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 assure ongoing attainment of their 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 Body: 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 their 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 Permittees: County of Monterey

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

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 and River

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

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

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 their 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 is 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 Body: Soquel Lagoon, Soquel Creek, Noble Gulch

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 their 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.

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

Responsible Permittees: County of Santa Cruz

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

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 their wasteload allocation is achieved. The Wasteload Allocation Attainment Plan shall include all information required under section G4.3.1.

Final Compliance Deadline: Waste load allocations was 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 Santa Maria, County of Santa Barbara, County of San Luis Obispo, City of Guadalupe

Impaired Water Body: 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 their 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

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

Impaired Water Body: 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, North Main Street Channel, Orcutt Creek, Nipomo 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 their 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 Permittees: County of Monterey

Impaired Water Body: Lower Salinas River, Santa Rita Creek, Salinas Reclamation Canal, Gabilan Creek, Natividad Creek, Alisal 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 their 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 River Watershed

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

Impaired Water Body: Blosser Channel, Bradley Channel, Greene Valley Creek, 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 their 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, County of Monterey, City of Morgan Hill, County of Santa Clara, County of Santa Cruz, City of Watsonville

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

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 Permittees: County of Monterey

Impaired Water Body: 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 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 their 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 their 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 Gabilan Creek Watershed Turbidity TMDL

Responsible Permittees: County of Monterey

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

TMDL Implementing 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 their 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, Veteran 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; and
 - b. Demonstration of compliance with wasteload allocations as described in section G2; and
 - c. Ongoing actions to comply with wasteload allocations; and
 - 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 (FCI) Terminal Island and 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; and
2. Demonstration of compliance with wasteload allocations per the requirements in section G4.1; and
3. Ongoing actions to comply with wasteload allocations; and
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 and 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

Waterbody Segment	Final Dry Weather Compliance Date
Segment A Tributaries (Compton Creek)	September 23, 2025
Segment E (Reach 6)	March 23, 2025

- 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

- 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.
- Provide the status of and on-going actions for compliance with wasteload allocations; and
- 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 G9.1 of this Order.

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

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. Status of compliance with wasteload allocations; and
4. Demonstrate compliance with wasteload allocations using the criteria described in section G4.1; and
5. Ongoing actions to comply with wasteload allocations; and
6. Identification and status of the implementation action selected in section G9.1, either the Cooperative Agreements or the Program Plan.

G4.4.7 Los Angeles Water Board Metals and Selenium TMDLs General Requirements

This Order carries over the previous permit's requirement to select one of two actions to meet the requirements of the metals and selenium 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 in order 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: Veteran Affairs Greater Los Angeles Healthcare System, University of California Los Angeles

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 G.5.4.1.

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

1. Implementation action selected under the previous permit and as reiterated in section G.5.4.1, either the Cooperative Agreement or Program Plan.
2. Ongoing monitoring and actions to continue compliance per the option selected in section G.5.4.1.
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 G.5.4.1 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 G.5.4.1.
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 G.5.4.1 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 G.5.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G.5.4.1.
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 (Point Mugu), and 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 G.5.4.1.

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 G.5.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G.5.4.1.
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 G.5.4.1.

TMDL Reporting Requirements:

1. Implementation action selected under the previous permit and as reiterated in section G.5.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G.5.4.1.
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 allocations⁸.

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 zinc⁹.

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 G.5.4.1.

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 G.5.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G.5.4.1.
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 (Point Mugu), and California State University, Channel Islands

Impaired Water Body: Calleguas Creek

⁸ Los Angeles Water Board Basin Plan section 7-20.

⁹ IBID

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 required under G.5.4.1 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 G4.4.1 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 G.5.4.1.
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: Veteran Affairs Greater Los Angeles Healthcare System and University of California Los Angeles

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 G.5.4.1 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 G4.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.1.
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; and 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 G.5.4.1, either the Cooperative Agreements or Program Plan.
2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G.5.4.1.
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 (Point Mugu); and 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 G4.4.1 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 G4.4.1, either the Cooperative Agreements or Program Plan.

2. Ongoing monitoring and implementation actions to continue compliance per the option selected in section G4.4.1.
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: Veteran Affairs, Greater Los Angeles Healthcare System and the University of California Los Angeles

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 their 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 and 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 their 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 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 Permittees: City of Patterson

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

TMDL Implementation Requirements: Permittee shall implement best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges by the effective date of this Order. 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) Six 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 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;
- 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 their 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 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.

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, County of San Joaquin, City of Tracy, City of West Sacramento

Impaired Water Body: Sacramento-San Joaquin Delta Waterways

TMDL Implementation Requirements: The Permittee shall implement the following best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges by the effective date of this Order. 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) Six 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;
- 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 their 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.

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

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

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

TMDL Implementation Requirements: The Permittee shall implement best management practices to eliminate diazinon and chlorpyrifos in municipal stormwater discharges by the effective date of this Order. 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) Six 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;
 - 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 their 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.

G4.5.4 TMDL for Low Dissolved Oxygen in the San Joaquin River

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, Merced County, City of Newman, City of Oakdale,

City of Patterson, City of Ripon, City of Riverbank, San Joaquin County, Stanislaus County, City of Turlock

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. This will be implemented 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. The Permittee who has not demonstrated attainment of the wasteload allocations shall submit an updated Monitoring and Reporting Plan within 6 months of the effective date of this Order.
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 their 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 their 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.

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 San Joaquin, 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 Order in the TMDL Annual Reports, pursuant to section G2 (above) and Attachment D or 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, County of Lake, City of Lakeport

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 three 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 their 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 implement 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;
- 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).
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 their 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 Body: Curry Creek (Placer and Sutter Counties), Kaseberg Creek (tributary to Pleasant Grove Creek, Placer County), Pleasant Grove Creek (upstream of Fiddymont Road), and Pleasant Grove Creek, South Branch

TMDL Implementation Requirements: The Permittee shall implement the following:

1. Implement the Pyrethroid Management Plan, as approved by the Central Valley Water Board Executive Officer, 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, compliance with those requirements shall be deemed compliance with the requirement to implement a Pyrethroid Management Plan.

TMDL Monitoring Requirements:

Pyrethroids Monitoring¹⁰

1. Within 18 months of the effective date of this Order, the Permittee shall develop and submit a Pyrethroids Monitoring Plan and Quality Assurance Project Plan for Central Valley Regional Water Board Executive Officer approval and shall implement the Pyrethroids Trend Monitoring Plan once it has been approved by the Central Valley Regional Water Board Executive Officer.
2. The Pyrethroids 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;

¹⁰ Central Valley Water Board [Basin Plan](#), Section 5.1.6 Municipal Storm Water Monitoring

- 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 Regional Water Board, United States Environmental Protection Agency (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.

- 3. The Pyrethroids Monitoring Plan shall include at a minimum monitoring of the receiving water or the Permittee’s discharge as show in Table G4.5.1, below:

Table G4.5.1: Receiving Water or MS4 Discharge Monitoring

Chemical ^a	Units (ng/L)	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
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, Tota)	ng/L	Grab	4/year	1/year	10

Chemical ^a	Units (ng/L)	Sample Type	Minimum Sampling Frequency ^e	Minimum QA/QC Sampling Frequency ^d	Minimum Reporting Level ^{b,c} (ng/L)
Total Organic Carbon	mg/L	Grab	4/year	1/year	-
Dissolved Organic Carbon	mg/L	Grab	4/year	1/year	-

Table 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 events¹¹ (i.e., post first flush¹², post mid-winter¹³ wet weather event, post spring runoff¹⁴ event) and one dry weather¹⁵ event. If, during the time period for a wet weather event, a qualifying wet weather event does not occur, additional storms shall be sampled during the time period for the next wet weather 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. If the monitoring is extended, the due date for the Baseline Monitoring Report shall be extended until 90 days following the final qualifying wet weather event. 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.

¹¹ Qualifying wet weather event is any rain event 0.25-inch in 24-hours.

¹² Post first flush timeframe is within 1 day of the qualifying wet weather event between October 1 and December 31.

¹³ Post mid-winter wet weather event is within 1 day of a qualifying wet weather event between January 1 and March 19.

¹⁴ Post spring runoff event is within 1 day of a qualifying wet weather event between March 20 and June 20.

¹⁵ A dry weather event is any day between June 21 and September 30 that is preceded by 7-days of no measurable (i.e., <0.1 inches) of rain.

5. Proposed sampling locations to collect water samples from either a receiving water or downstream of the Permittee's discharge; or from the Permittee's discharge itself.
6. Water column and sediment toxicity monitoring, which includes the following:
 - 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) 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.
- 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 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 a laboratory and method approved by the Executive Officer. When evaluating the analytical methods, the Executive Officer will consider Environmental Laboratory Accreditation Program accreditation, associated quality assurance and quality control provisions, scientifically peer-reviewed methods, results of interlaboratory comparison studies, and/or other factors.
 - a. Monitoring for a full year of monitoring, including at least three storm events and one dry weather event. The monitoring shall be initiated upon approval of the Monitoring Plan and Quality Assurance Project Plan by the Central Valley Water Board Executive Officer. The first year of monitoring shall be initiated no later than 22 months after the effective date of this Order and

shall be completed within 34 months of the effective date of this Order. A final report shall be submitted no later than six months after completion of monitoring or 40 months after the effective date of this Order, whichever comes first.

- b. A Quality Assurance Project Plan shall be in accordance with the quality assurance/quality control and other protocols established by the Surface Water Ambient Monitoring Program. Unless otherwise specified by this Order, field testing, sample collection, preservation, laboratory testing, including quality control procedures and all record keeping shall comply with the most current version of the [Surface Water Ambient Monitoring Program Quality Assurance Program Plan](https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html) (https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html)
4. 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](https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/central_valley_pesticides/pyrethroid_tmdl_bpa/index.html): (https://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/central_valley_pesticides/pyrethroid_tmdl_bpa/index.html).
5. The Permittee shall implement pyrethroids monitoring five years after completion of the initial monitoring described above, and then every five years hence. Subsequent monitoring plans, sampling, reports and Quality Assurance Project Plans will be due six months prior to initiation of monitoring. Sampling will be initiated upon monitoring plan and Quality Assurance Project Plan approval and culminate after a full year. Reports are due six months after completion of pyrethroids monitoring. monitoring for pyrethroid pesticides and alternative insecticides can be discontinued upon the Permittee showing that the specific pesticide is not found, or is not reasonably expected to be found, in receiving waters at concentrations with the potential to exceed the pyrethroid wasteload allocations and/or Acute and Chronic Pyrethroid Triggers or levels of concern for alternative insecticides.
6. 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. If the management practices do not result in attainment of the wasteload allocations, the Permittee shall either modify the Pyrethroid Management Plan to identify reasonable and feasible additional/alternative practices for implementation or provide a justification for why current practices will result in attainment by the compliance date.

7. 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. By February 19, 2039, the Permittee shall demonstrate attainment of the TMDL wasteload allocations and the TMDL Demonstration of Compliance Report pursuant to section G2 (above).

G4.6 LAHONTAN WATER BOARD

0G4.6.1 Middle Truckee River Watershed Sediment TMDL

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 Fairgrounds, University of California, Irvine

Impaired Water Body: 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 their MS4s. The Permittee shall demonstrate compliance through the following actions:

1. Within one 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 one 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 their 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 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:

¹⁶ State Water Board [Resolution No. 2012-0051](#)

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 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 Body: Lake Elsinore, Canyon Lake

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 D, or E (as applicable).
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 Attachments D or E (as applicable)
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 Attachments D or E (as applicable).

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 Body: Santa Ana River, Reach 3, Chino Creek, Mill Creek, Prado Park Lake

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 D or E (as applicable).
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).

G4.8.4 San Diego Creek and Upper Newport Bay Diazinon and Chlorpyrifos TMDL

Responsible Permittees: Orange County Fairgrounds; University of California, Irvine

Impaired Water Body: 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 their 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. 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 their 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 Attachments D or E (as applicable) 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 Attachments D or E (as applicable).
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 Fairgrounds, University of California, Irvine

Impaired Water Body: 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 their 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 Toxic Pollutants (Metals) TMDLs for the Newport Bay/San Diego Creek. 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 their 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 Attachments D or E (as applicable) 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 Attachments D or E (as applicable).
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 D or E (as applicable).

G4.9 SAN DIEGO WATER BOARD TOTAL MAXIMUM DAILY LOADS

G4.9.1 TMDLs for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region

Responsible Permittees: 22nd District Agricultural Association, California State University at San Marcos, Marine Corps Air Station Miramar, Marine Corps Base Camp Pendleton, North County Transit District, San Diego State University, San Diego Veterans Affairs San Diego Healthcare System, University of California San Diego, US Marine Corps Recruit Depot, San Diego Metropolitan Transit System, Doheny State Beach, Moonlight State Beach, San Clemente State Beach, San Elijo State Beach, South Carlsbad State Beach, and Torrey Pines State Beach.

Impaired Water Bodies: Laguna/San Joaquin, San Juan, San Clemente, San Luis Rey, San Marcos, San Dieguito River, Miramar Creek, Scripps HA, Tecolote HA, San Diego River, and Chollas Creek.

TMDL Compliance Deadlines:

1. By April 4, 2021, the Permittees are required to demonstrate attainment of the dry weather wasteload allocations shown in Fact Sheet Tables B9.1, and/or numeric targets in Table B9.2.
2. By January 1, 2025, 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 (Fact Sheet Table B9.1 and Table B.9.2).

TMDL Implementation Requirements:

Permittees shall attain compliance with wasteload allocations and numeric targets for indicator bacteria in the Permittee's discharge 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. Permittees shall take the following actions to meet the requirements of this TMDL:

1. Final 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 such a demonstration, 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, 7.1 (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. By January 1, 2025, 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. By January 1, 2025, 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. Monitoring of all outfalls/discharge locations or one or more representative outfall/discharge location within their 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 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.
 - 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 (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:
 - i. For Permittees who discharge to a beach segment, fecal coliform and Enterococcus.
 - ii. 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 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-1¹⁷ 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:
 - 1) 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

¹⁷ Water Contact Recreation (REC-1) - Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible.

geometric means calculated from samples collected during the dry season.

2) 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; and
- 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.
- 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

Watershed	Waterbody	Segment or Area
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
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

Watershed	Waterbody	Segment or Area
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
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%
<i>Enterococcus</i>	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.

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%
<i>Enterococcus</i>	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.

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%
<i>Enterococcus</i>	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.

G4.9.3 TMDL for Sediment in Los Peñasquitos Lagoon

Responsible Permittees: Marine Corps Air Station Miramar, San Diego Veterans Administration Medical Center, University of California San Diego, North County Transit District, and any other Permittees identified by future permit amendments.

Impaired Water Body: Los Peñasquitos Lagoon

TMDL 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.

Waste Load Allocations:

1. The TMDL sediment wasteload allocation of 2,580 tons/year and is assigned collectively to all responsible permittees identified in the TMDL.
2. Permittees 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. By January 1, 2025, Permittees shall update and implement its 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. By January 1, 2025, 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 their 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 their sediment loadings to their proportional load responsibility from the total watershed wasteload allocation. Permittees shall assess whether their sediment loadings met or exceeded their proportional load responsibility. Permittees shall assess whether their sediment loadings met or exceeded their proportional load responsibility from the watershed wasteload allocation during the wet season.
5. Permittees that can demonstrate that its 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. c

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.

ATTACHMENT H – TRASH IMPLEMENTATION REQUIREMENTS

OVERVIEW

The requirements of this Attachment implement the Trash Provisions of the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (the Trash Provisions).

H1. TRASH DISCHARGE PROHIBITION

Permittees shall comply with Order section 5.3, the trash-related discharge prohibition, through compliance with the requirements of this Attachment.

H2. TRASH REQUIREMENTS COMPLIANCE DEADLINE

By December 2, 2030, renewal Permittees shall demonstrate full compliance with the requirements of this Attachment.

New Permittees shall demonstrate full compliance with the requirements of this Attachment within ten years of the effective date of this Order or the effective date of their Designation, whichever is later.

H3. APPLICABILITY

Traditional and Non-Traditional Permittees shall comply with the requirements of this Attachment.

H4. CERTIFIED FULL CAPTURE SYSTEMS

1. Certified Full Capture Systems are trash treatment control systems that are certified by the State Water Board Executive Director that trap all particles 5-millimeters or greater. Certified Full Capture Systems include both certified trash treatment control systems and Categoricaly Certified Multi-Benefit Systems. Other than Categoricaly Certified Multi-Benefit Systems, when certifying trash treatment control systems, the State Water Board Executive Director designates the systems as either “Catch Basin Inserts and Other Insert Systems” or “High Flow Capacity Trash Full Capture Systems.” Other designations may be developed as necessary and appropriate.

2. In accordance with the Trash Provisions, Permittees shall ensure that Certified Full Capture Systems have a design treatment capacity that is either:
 - a. Not less than the peak flow rate, Q, resulting from a one-year, one-hour, storm in the subdrainage area, or
 - b. Designed and sized to carry at least the same flows as the corresponding storm drain that carries less than the peak flow rate.
3. Permittees shall use the rational equation to compute the peak flow rate, as shown in the formula below:

$$Q = C \cdot I \cdot A$$

Where “Q” is the design flow rate in cubic feet per second; “C” is the runoff coefficient (dimensionless); “I” is the design rainfall intensity in inches per hour and as determined by the rainfall isohyetal map specific to each region, and “A” is the subdrainage area in acres.

4. Lists of Certified Full Capture Systems, as well as descriptions and implementation requirements for Categorically Certified Multi-Benefit Systems, are published on the State Water Board’s [Trash Implementation Program](https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html) web page at:
(https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html)
5. Permittees may apply to certify a new system by submitting a complete application in accordance with the application requirements published on the State Water Board’s [Trash Implementation Program](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/4factsht.pdf) web page
(https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/4factsht.pdf)
6. The application for certification of a project specific trash treatment system is available upon request.

H5. COMPLIANCE TRACKS

Traditional and Non-Traditional Permittees shall choose one of the compliance track options, as follows:

1. Traditional Track 1 Permittees: Permittees shall install, operate, and maintain Certified Full Capture Systems for all storm drains that capture runoff from the Priority Land Uses in their jurisdictions.

2. Traditional Track 2 Permittees: Permittees shall install, operate, and maintain any combination of Certified Full Capture Systems, other treatment controls, and institutional controls within either the jurisdiction of the Permittee or the jurisdiction of the Permittee and contiguous Permittees. The Permittee may determine the locations or land uses that generate substantial amounts of trash within its jurisdiction to implement any combination of controls. Permittees shall demonstrate that such combination achieves Full Capture System Equivalency. Permittees must demonstrate that the amount of trash to be addressed at Priority Land Uses and determined locations or land uses that generate substantial trash is equal to or more than the amount of trash generated by the Permittee's Priority Land Uses. It is the State Water Board's expectation that Traditional Track 2 Permittees will install Full Capture Systems where such installation is not cost-prohibitive.
3. Non-Traditional Track 1 Permittees: Permittees shall install, operate, and maintain Certified Full Capture Systems for all storm drains that capture runoff from locations and land uses that generate substantial amounts of trash in their jurisdictions.
4. Non-Traditional Track 2 Permittees: Permittees shall install, operate, and maintain any combination of Certified Full Capture Systems, other treatment controls, and institutional controls within either the Permittee's jurisdiction or the jurisdiction of the Permittees and contiguous Permittees to address locations and land uses that generate substantial amounts of trash. The Permittees shall determine the locations and land uses within their jurisdictions that generate substantial amounts of trash. Permittees shall demonstrate that such combination achieves Full Capture System Equivalency. It is the State Water Board's expectation that Non-Traditional Track 2 Permittees will install Full Capture Systems where such installation is not cost-prohibitive.

H5.1 Compliance Track Selection and Change

New Permittees shall select a compliance track via SMARTS within 60 days of enrollment for coverage under this Order. Existing Permittees shall implement their previously selected compliance Track as required by the State Water Board's June 2, 2017, Water Code section 13383 Order. Permittees may change their compliance track through the following procedure:

1. Enter the new Compliance track via SMARTS.
2. Notify the appropriate Regional Board Executive Officer of the compliance track change via e-mail.

3. Comply with the requirements associated with the selected compliance track.
4. Update their Trash Implementation Inventory, Trash Generation Map, Trash Assessment Plan (if Track 2 selected), and Trash Implementation Plan and submit via SMARTS within 180 days of changing their compliance track.

H6. TRASH IMPLEMENTATION INVENTORY

Within 180 days of the effective date of this Order or effective date of designation under this Order, whichever is later, the Permittees shall prepare a Trash Implementation Inventory. The Trash Implementation Inventory shall be updated annually and distinguish the acreage already treated as of the effective date of this Order or the effective date of Designation (whichever is later) and the acreage remaining to be treated. The Inventory shall include the following, as applicable.

H6.1 Traditional Track 1 Permittees

1. List all subdrainage areas containing Priority Land Use areas using a unique identification number system, latitude and longitude coordinates, and representative or nearest street address.
2. For each subdrainage area or location, include:
 - a. The total acreage;
 - b. The acreage already addressed by or proposed to be addressed by Certified Full Capture Systems; and,
3. For each subdrainage area with Certified Full Capture Systems already installed or proposed to be installed in the following reporting year, include:
 - a. The peak flow rate in cubic feet per second resulting from a one-year, one-hour storm in the subdrainage area, or flow of the corresponding storm drain;
 - b. The trash treatment capacity and model name of each Certified Full Capture System already installed or proposed to be installed in the following reporting year; and
 - c. Date(s) of the previous year's maintenance, if applicable, and scheduled maintenance date(s) in the following reporting year for each Certified Full Capture System.

H6.2 Non-Traditional Track 1 Permittees

In accordance with the Permittee's Trash Assessment Plan, conduct either the On-Land Visual Trash Assessment approach or equivalent spatially explicit approach to determine trash generation rates for each location or land use that generates substantial trash.

1. List all subdrainage areas determined by the Permittees to generate substantial amounts of trash using a unique identification number system, latitude and longitude coordinates, and representative or nearest street address.
2. For the subdrainage areas identified above, include:
 - a. The total acreage;
 - b. The acreage already addressed by or proposed to be addressed by Certified Full Capture Systems;
3. For each subdrainage with Certified Full Capture Systems already installed or proposed to be installed in the following reporting year, include:
 - a. The peak flow rate in cubic feet per second resulting from a one-year, one-hour storm in the subdrainage area, or flow of the corresponding storm drain;
 - b. The trash treatment capacity and model name of each Certified Full Capture System already installed or proposed to be installed in the following reporting year, and
 - c. Date(s) of previous year's maintenance and next scheduled maintenance date(s) in the following reporting year.

H6.3 Traditional Permittees Selecting Compliance Track 2

1. In accordance with the Permittee's Trash Assessment Plan required in H.13, conduct either the On-Land Visual Trash Assessment Approach or equivalent spatially explicit approach to determine trash generation rates for each Priority Land Use and selected or determined locations or land uses that generate substantial trash.
2. List all subdrainage areas determined by the Permittee to generate substantial amounts of trash using a unique identification number system,

latitude and longitude coordinates, and representative or nearest street address.

3. For the subdrainage areas identified above, include:
 - a. The total acreage already addressed by or proposed to be addressed by a combination of Certified Full Capture Systems, other treatment controls, and institutional controls,
 - b. The trash generation rates in gallons per acre per year for each Priority Land Use and selected or determined locations or land uses that generate substantial trash; and
 - c. The trash generation rates for all Priority Land Uses where Certified Full Capture Systems will not be implemented.
4. For each subdrainage with Certified Full Capture Systems already installed or proposed to be installed in the following reporting year, include:
 - a. The peak flow rate in cubic feet per second resulting from a one-year, one-hour storm in the subdrainage area, or flow of the corresponding storm drain;
 - b. The trash treatment capacity and model name of each Certified Full Capture System already installed or proposed to be installed in the following reporting year; and
 - c. Date(s) of previous year's maintenance and next scheduled maintenance date(s) in the following reporting year.
5. For each subdrainage area where a combination of other treatment controls and institutional controls have or will be implemented, include the Date(s) of previous year's maintenance and next scheduled maintenance date(s) in the following reporting year.
6. Include a description of and rationale for the combinations of other treatment controls and institutional controls selected to achieve Full Capture System Equivalency.
7. Permittees shall additionally demonstrate that the amount of trash to be addressed at Priority Land Uses and determined locations or land uses that generate substantial trash is equal to or more than the amount of trash generated by the Permittee's Priority Land Uses.

H6.4 Non-Traditional Track 2 Permittees

1. In accordance with the Permittee's Trash Assessment Plan, conduct either the On-Land Visual Trash Assessment Approach or equivalent spatially explicit approach to determine trash generation rates for each location or land use that generates substantial trash.
2. List all subdrainage areas determined by the Permittee to generate substantial amounts of trash using a unique identification number system, latitude and longitude coordinates, and representative or nearest street address.
3. For the subdrainage areas identified above, include:
 - a. The total acreage;
 - b. The acreage already addressed by or proposed to be addressed by a combination of Certified Full Capture Systems, other treatment controls, and institutional controls;
4. For each subdrainage area with Certified Full Capture Systems already installed or proposed to be installed in the following reporting year, include:
 - a. The peak flow rate in cubic feet per second resulting from a one-year, one-hour storm in the subdrainage area, or flow of the corresponding storm drain;
 - b. The trash treatment capacity and model name of each Certified Full Capture System already installed or proposed to be installed in the following reporting year; and
 - c. Date(s) of previous year's maintenance and next scheduled maintenance date(s) in the following reporting year.
5. For each subdrainage area where a combination of other treatment controls and institutional controls have or will be implemented, include the Date(s) of previous year's maintenance and next scheduled maintenance date(s) in the following reporting year.
6. Include a description of and rationale for the combinations of other treatment controls and institutional controls selected to achieve Full Capture System Equivalency.

H6.5 Traditional Track 1 Permittees Priority Land Use Substitution

1. Traditional Track 1 Permittees may request authorization from the Regional Water Board Executive Officer to substitute one or more Priority Land Uses with alternative land uses within the Permittee's jurisdiction according to the following:
 - a. Permittees shall establish, in accordance with subsection H6.3.6 above, that the land uses generate rates of trash in gallons per acre per year that are equivalent to or greater than the substituted Priority Land Uses; and,
 - b. Permittees shall provide a rationale for the requested substitution.
2. If a Priority Land Use substitution is authorized, Permittees shall include the alternative land uses in the Trash Implementation Inventory and Trash Generation Map.

H7. TRASH GENERATION MAP

Traditional and Non-Traditional Permittees shall, within 180 days of the effective date of this Order or new designation under this Order, whichever is later, prepare and submit via SMARTS a new or updated Trash Generation Map that addresses the requirements in H7.1 through H7.2, as appropriate. Permittees shall annually review and update as necessary the Trash Generation Map and submit via SMARTS.

H7.1 Traditional Permittees

Traditional Permittees shall include the following information in the Trash Generation Maps:

1. All Priority Land Use subdrainage areas discharging to the MS4 and the corresponding stormwater conveyance system, including inlets and outlets that collect and convey discharges from Priority Land Uses;
2. Locations of Certified Full Capture Systems that have been installed and are proposed to be installed in the following reporting year; and
3. For Track 2 Permittees, locations and land uses where a combination of Certified Full Capture Systems, other treatment controls, and institutional controls have been implemented or will be implemented in the following reporting year that will achieve Full Capture System Equivalency.

H7.2 Non-Traditional Permittees

Non-Traditional Permittees shall include the following information in the Trash Generation Maps:

1. Locations and land uses that have been determined to generate substantial amounts of trash with discharges to the MS4 and the corresponding stormwater conveyance system, including inlets and outlets that collect and convey discharges from locations and land uses;
2. Locations of Certified Full Capture Systems that have been installed or are proposed to be installed in the following reporting year; and
3. Locations and land uses where any combination of other treatment controls and institutional controls have been implemented or will be implemented in the following reporting year.

H8. TRASH ASSESSMENT PLAN

Traditional and Non-Traditional Permittees shall:

1. Prepare within 90 days of the effective date of this Order or new designation, a Trash Assessment Plan. Permittees shall update the Trash Assessment Plan each reporting year as necessary. The Trash Assessment Plan shall include the following:
 - a. Either the On-land Visual Trash Assessment methodology or an equivalent spatially explicit approach approved by the Regional Water Board Executive Officer. All trash assessments shall be capable of identifying areas with Very High, High, Moderate, and Low trash generation rates. Areas with Very High, High, and Moderate trash generation rates are considered substantial trash generation areas;
 - b. A map geographically depicting the trash assessment areas assessed the previous reporting year and the trash assessment areas proposed to be assessed the following reporting year (Permittees may incorporate this information into the map required in H.7);
 - c. The interval and frequency of trash assessments and justification that the intervals and frequencies selected will yield data that is representative of trash generation;
 - d. Trash assessment field procedures; and

- e. Quality assurance and control procedures, including field trash assessor training, to ensure the representativeness, comparability, completeness, sensitivity, and accuracy of the trash assessment data collected.

2. Implement the Trash Assessment Plan to:

- a. Conduct trash assessments within 180 days of the effective date of this Order or new designation to establish initial trash generation rates.
 - 1) Current Permittees may utilize previous trash assessments conducted to comply with the State Water Board 13383 Order; However, the Permittee's trash assessments shall be updated as necessary (i.e., new trash generation areas).
 - 2) New Permittees shall identify locations and land uses with substantial trash generation.
- b. Conduct trash assessment each reporting year to determine the effectiveness of implemented combinations of other treatment controls and institutional controls in achieving Full Capture System Equivalency.
- c. Assess trash load reduction each reporting year at:
 - 1) Each location or land use where the Permittee has implemented a combination of other treatment controls and institutional control, or
 - 2) A statistically representative set of locations or land uses, of similar trash generation levels, and with similar implemented combination of other treatment controls and institutional controls. The result of such a trash assessment will apply to all corresponding similar location or land use/combination of other treatment controls and institutional controls. The Permittee shall include a justification supporting the selected locations.

H9. TRASH IMPLEMENTATION PLAN

Within 180 days of the effective date of this Order or new designation under this Order, whichever is later, all Permittees shall prepare, and annually update, a Trash Implementation Plan. The Trash Implementation Plan shall include the following:

- 1. A schedule for the installation or implementation of Certified Full Capture Systems, other treatment controls, and institutional controls in the following 12 months.

2. For each Certified Full Capture System proposed to be installed in the following reporting year:
 - a. The proposed installation location;
 - b. The acreage of the sub-drainage area;
 - c. The estimated trash reduction resulting from the installation of the Certified Full Capture Systems (Track 2 Permittees only); and
 - d. The design treatment capacity.
3. An annual evaluation of:
 - a. The progress toward attaining interim milestones including the progress of achieving the previous year's Trash Implementation Plan goals; and
 - b. If applicable, the plan to address a shortfall in trash reduction implementation from the previous years.
4. In addition to the requirements of H8.1-3, above, all Permittees selecting compliance track 2 shall include the following:
 - a. Stormwater discharge locations and location acreage where a combination of other treatment controls and institutional controls are planned to be implemented in the following reporting year.
 - b. Descriptions of other treatment controls and institutional controls that are scheduled to be implemented in the following reporting year months for each location and land use identified above; and
 - c. The estimated trash reduction, using the same methodology selected for their initial trash assessment, resulting from the implementation of the selected combinations of the other treatment controls and institutional controls.
5. Permittees shall coordinate activities with the California Department of Transportation to install, operate, and maintain Certified Full Capture Systems, other treatment controls, and institutional controls in mutually impacted areas. Mutually impacted areas are those areas where the jurisdictions and trash generation of the Permittees and the Department overlap.

H10. FULL CAPTURE SYSTEM EQUIVALENCY FOR PERMITTEES IN TRACK 2

Track 2 Traditional and Non-Traditional Permittees shall demonstrate that the combinations of Certified Full Capture Systems, other treatment controls, and institutional controls implemented achieve Full Capture System Equivalency.

Full Capture System Equivalency is achieved by:

1. By installing, sizing, and maintaining a Certified Full Capture System at a location; and/or
2. Implementing and maintaining any combination of other treatment controls and institutional controls at locations resulting in a trash load reduction equivalent to the performance of installed Certified Full Capture Systems that are properly sized, installed, and maintained.

H11. TRASH REDUCTION MILESTONES FOR RENEWAL PERMITTEES

Renewal Permittees shall achieve the following milestones, based on the acreage identified in the Permittee's Trash Generating Inventory (see section H.6).

1. First Milestone. On or before December 2, 2026:
 - a. Renewal Traditional Track 1 Permittees: Install, operate, and maintain Certified Full Capture Systems at 30 percent of identified Priority Land Use acreage to be addressed by Certified Full Capture Systems.
 - b. Renewal Non-Traditional Track 1 Permittees: Install, operate and maintain Certified Full Capture Systems at 30 percent of identified locations and land use acreage that generate substantial amounts of trash.
 - c. Renewal Traditional and Non-Traditional Track 2 Permittees: Install, operate, and maintain any combination of Certified Full Capture Systems, other treatment controls, and institutional Controls to address 30 percent of selected or determined locations or land uses acreage that generates substantial amounts of trash.
2. Second Milestone. On or before December 2, 2028, Renewal Traditional Track 1 Permittees shall install Certified Full Capture Systems at 65 percent or more of the identified Priority Land Use acreage. Renewal Non-Traditional Track 1 and all Renewal Traditional and Non-Traditional Track 2 Permittees shall address 65 percent of selected acreage, or locations and land use acreage generating substantial trash.

3. Third Milestone. On or before December 2, 2030, Renewal Traditional Track 1 Permittees shall install Certified Full Capture Systems at 100 percent of the identified Priority Land Use acreage. Renewal Non-Traditional Track 1 and Renewal Traditional and Non-Traditional Track 2 Permittees shall address 100 percent of selected acreage, or locations and land use acreage generating substantial trash.
4. Permittees may request approval of alternative first and second Trash Reduction Milestones for Regional Water Board Executive Officer review and approval. Requests shall include justification. Upon approval, Permittees shall comply with the approved alternative milestones.

H12. TRASH REDUCTION MILESTONES FOR NEW PERMITTEES

New Permittees shall achieve the following milestones based on the acreage identified in the Permittee's Trash Generating Inventory (see section H.6).

1. First Milestone for New Permittees. Within four (4) years of the effective date of this Order or the effective date of designation, whichever is latest.
 - a. New Traditional Track 1 Permittees shall install, operate, and maintain Certified Full Capture Systems at 40 percent of identified Priority Land Use acreage
 - b. New Non-Traditional Track 1 Permittees shall install, operate and maintain Certified Full Capture Systems at 40 percent of identified locations and land use acreage that generate substantial amounts of trash.
 - c. New Traditional and Non-Traditional Track 2 Permittees shall install, operate, and maintain any combination of Certified Full Capture Systems, other treatment controls, and institutional Controls to achieve 40 percent trash reduction of selected or determined locations or land uses that generate substantial amounts of trash.
2. Second Milestone. Within seven (7) years of the effective date of this Order or the effective date of Designation, New Traditional Track 1 Permittees shall install Certified Full Capture Systems at 70 percent or more of the Priority Land Use acreage. New Non-Traditional Track 1 Permittees and New Traditional and Non-Traditional Track 2 Permittees shall address 70 percent of selected acreage, or locations and land use acreage generating substantial trash.
3. Third Milestone. Within ten (10) years of the effective date of this Order or the effective date of designation, New Traditional Track 1 Permittees shall install Certified Full Capture Systems at 100 percent or more of the Priority Land Use

acreage. Traditional and Non-Traditional Track 2 Permittees shall address 100 percent of selected acreage, or locations and land use acreage generating substantial trash.

4. New Permittees may request approval of alternative first and second Trash Reduction Milestones for Regional Water Board Executive Officer review and approval. Requests shall include justification. Upon approval, Permittees shall comply with the approved alternative milestones.

H13. INSPECTION AND MAINTENANCE REQUIREMENTS

Permittees shall inspect and maintain Certified Full Capture Systems at a frequency that ensures design treatment capacity is maintained to trap trash for peak flow rates as described in H4.2–3 at any time within a storm event, and inspect and maintain other treatment controls and institutional controls that achieve Full capture Equivalency.

1. General Inspection and Maintenance Requirements.

Permittees shall:

- a. Develop an individual inspection and maintenance schedule appropriate for each Certified Full Capture System that ensures the Certified Full Capture System maintains its design treatment capacity to trap trash for peak flow rates as described in H4.2-3.
- b. Adjust inspection and maintenance schedule for any Certified Full Capture System that does not maintain its design treatment capacity to trap trash for peak flows as described in H4.2-3; and
- c. Include the inspection and maintenance schedule for each Certified Full Capture Systems in the Trash Implementation Inventory.

2. Certified Full Capture System Minimum Inspection and Maintenance Requirements.

The minimum inspection and maintenance for each Certified Full Capture System are as follows:

- a. Track 1 Permittees shall conduct inspections and maintenance at least twice per reporting year at all locations with installed Certified Full Capture Systems, and with the first inspection and maintenance scheduled within two months prior to November 1 and the second inspection and maintenance scheduled during the wet season (October – May).

- b. Track 2 Permittees shall conduct inspections and maintenance at all locations with installed Certified Full Capture Systems at least:
 - i. Once per reporting year for areas of moderate trash generation, and
 - ii. At least twice per reporting year for areas with high and very high trash generation.
 - c. If any Certified Full Capture System, other than high flow capacity systems as designated by the State Water Board Executive Director, is found to have a 50 percent or more blinded screen, or is 50 percent full or greater of trash and debris, during an inspection or a maintenance event, the inspection and maintenance frequency shall be increased so that the system is neither 50 percent or more blinded nor 50 percent or more full of trash and debris at the next inspection or maintenance event.
 - d. If any high-flow capacity Full Capture Systems, as designated by the State Water Board Executive Director, is found to exhibit a condition that is not maintaining design treatment capacity, the Permittee shall increase the inspection and maintenance frequency so that the Full Capture System maintains its design treatment capacity prior to the next inspection and maintenance event.
3. Categorically Certified Multi-Benefit System Maintenance
- a. Permittees shall inspect and maintain Categoricaly Certified Multi-Benefit Systems with the same frequency as described in H13.2.
 - b. Permittees shall ensure trash accumulation in Categoricaly Certified Multi-Benefit Systems does not inhibit their design treatment capacity to infiltrate or treat stormwater at the design peak flow rate; and
 - c. The maintenance frequency shall be increased, as necessary, so that the Categoricaly Certified Multi-Benefit System's design treatment capacity is maintained prior to the next scheduled maintenance event.
4. Other Treatment Controls and Institutional Controls Maintenance
- a. Permittees shall inspect locations and areas where other treatment controls and institutional controls have been implemented with the same frequency as described in subsections H13.2; and
 - b. The maintenance frequency shall be increased, if necessary, so that the other treatment controls and institutional controls achieve Full capture Equivalency.

H14. REGIONAL BOARD DETERMINATIONS

1. The Regional Water Board Executive Officer may determine that any land use or location generates substantial amounts of trash and require the relevant Permittees to implement Full Capture Systems or achieve Full Capture System Equivalency for the identified land uses or locations.
2. The Regional Water Board Executive Officer may require that permittees submit information about any identified land uses or locations (e.g., parks, stadia, schools, campuses, or roads leading to landfills) prior to the determination.
3. If the Regional Water Board Executive Officer determines that a land use or location generates substantial amounts of trash, the Executive Officer must notify the Permittee of its intent to require implementation of Certified Full Capture Systems or achievement of full capture system equivalency for the land uses or locations as well as an associated schedule for full compliance deemed appropriate by the Executive Officer.
4. If the Permittee disagrees with the Executive Officer's determination or proposed schedule, the Permittee may dispute the determination to the State Water Board Executive Director per the provisions of this Order relating to Dispute Resolution.
5. Following a determination and any Dispute Resolution process, if applicable, the Permittee shall include the areas in the Trash Generating Area Inventory and Trash Generating Area Map and address these areas in the Trash Implementation Plan.
6. The Regional Water Board Executive Officer's schedule for full compliance for the specific land uses or locations (e.g., parks, stadia, schools, campuses, or roads leading to landfills) that generate substantial amounts of trash shall not be more than ten years from the date of the Regional Water Board Executive Officer's determination or finalization of the Dispute Resolution process, if applicable.

H15. RECORD RETENTION

Permittees shall retain the following records:

1. Current Trash Implementation Inventory;
2. Current Trash Generation Map;

3. Current Trash Implementation Plan;
4. Trash Assessment Plan; and
5. Inspection and maintenance records including any inspection and maintenance schedules as required in H 13.1.

H16. ANNUAL TRASH MONITORING REPORT

All Permittees shall report via SMARTS the following information in each Annual Trash Monitoring Report:

1. Track 1 and Track 2 Permittees:
 - a. Certified Full Capture Systems installed in the previous reporting year, their locations, and the individual and cumulative acreage addressed;
 - b. Certified Full Capture Systems to be installed in the next reporting year, their locations, and the individual and cumulative acreage to be addressed;
 - c. Total number of installed Full Capture Systems and cumulative acreage addressed to date;
 - d. Certification that each installed Certified Full Capture System is operated and maintained to consistently achieve the design treatment capacity prior to each inspection and maintenance; and
 - e. If applicable, a description and timeline to address deficiencies in achieving the applicable trash reduction milestones.
2. Track 2 Permittees shall additionally report the following:
 - a. Other treatment controls and institutional controls implemented in the previous reporting year, their locations, and individual and cumulative acreage addressed;
 - b. Other treatment controls and institutional controls to be implemented in the following reporting year, their locations, and individual and cumulative acreage to be addressed;
 - c. Total acreage addressed by other treatment controls and institutional controls;

- d. The effectiveness of the implemented combinations of other treatment controls, and institutional controls in meeting Full Capture System Equivalency as required in H.10
- e. A summary of the annual trash assessments required in H.8 including the number and dates of the annual assessments;
- f. The decrease in the amount of Trash discharged from the areas where Certified Full Capture Systems and a combination of other treatment controls, and institutional controls have been implemented from the previous reporting year; and
- g. Only if information is readily available, the decrease in the amount of Trash in the Permittee's receiving waters from the previous year.

H17. REPORTING ITEMS

1. Within 60 days of designation under this Order, new Permittees shall select one of the two compliance tracks (either Track 1 or Track 2) via SMARTS.
2. Within 180 days of the effective date of this Order or designation under this Order, Permittees shall develop and submit a Trash Generation Map, and thereafter submit annual updates via Smarts.
3. Within 180 days of changing Tracks, Permittees shall submit their Trash Generation Map via SMARTS.
4. Permittees shall annually provide their local vector control agencies with the name and location of existing Certified Full Capture Systems and proposed Certified Full Capture Systems that will be installed during the following reporting year.
5. Permittees shall submit an annual Trash Monitoring Report via SMARTS per the schedule in this Attachment.

ATTACHMENT I – ALTERNATIVE COMPLIANCE STORMWATER CAPTURE OPTION

OVERVIEW

This Attachments provides optional alternatives for stormwater capture.

I1. GENERAL REQUIREMENTS

I1.1 Authorization

This Order authorizes the implementation of on-site and off-site alternative compliance stormwater capture options (referred to together as the Compliance Options and separately as the On-Site and Off-Site Compliance Options) as methods for compliance with this Order's requirements specified in section I1.2, below. The Compliance Options are optional. Permittees are not required to implement either of the Compliance Options.

I1.2 Compliance Incentives

I1.2.1 Compliance

If the Permittee is in compliance with this attachment and all other applicable requirements of this Order, the Permittee is in compliance with Effluent Limitations, section 6.1, regarding compliance with the maximum extent practicable standard, in areas of their jurisdiction draining to the stormwater capture best management practices (once the best management practices are implemented and operational).

I1.2.2 Deemed Compliance

If the Permittee is in compliance with this attachment and all other applicable requirements of this Order, the Permittee is deemed in compliance with the following sections of this Order in areas of their jurisdiction addressed by a Compliance Option (once the BMP(s) are implemented and operational):

1. Discharge Prohibitions, sections 5.1 (Maximum Extent Practicable), sections 5.4 (Exceedances of Water Quality Objectives and Standards) and 5.5 (Pollution or Nuisance);
2. Effluent Limitations, section 6.2;
3. Receiving Water Limitations, sections 7.1 (Implementation of Receiving Water Limitations) and 7.2 (Total Maximum Daily Loads).

I1.2.3 Exemptions

If the Permittee is in compliance with this attachment and all other applicable requirements of this Order, the Permittee is exempt from the following sections in the Permittee's respective attachment (D or E) of this Order in areas of their jurisdiction addressed by a Compliance Option:

1. TMDL Demonstration of Compliance (D7 and E7);
2. Water Quality Monitoring (D8 and E8);
3. Total Maximum Daily Loads Compliance Reporting (D10.8 and E10.8);
and
4. Water Quality Monitoring Reporting (D10.9 and E10.9).

I1.3 Failure to Comply

If the Permittee chooses but fails to comply with the requirements for a Compliance Option provided in this attachment, the Permittee will no longer be deemed in compliance with the sections identified above and shall comply with this Order's requirements from which the Permittee was exempted as part of this Compliance Option.

I2. COMPLIANCE OPTION IMPLEMENTATION REQUIREMENTS

I2.1 Implementation Requirements

1. The Permittee may discharge to a stormwater capture best management practice for capture and use, infiltration, and/or evapotranspiration of municipal stormwater and authorized non-stormwater discharges.
2. The stormwater capture best management practices must meet the design criteria of section I3.
3. The municipal stormwater and authorized non-stormwater discharges must not discharge to a water of the U.S. or water of the state prior to reaching the stormwater capture best management practices.
4. The Permittee may include best management practices that capture and divert the required stormwater runoff volumes to a publicly-owned sanitary sewer treatment facility, an on-site facility for on-site use, a regional reclaimed water distribution system, or a combination thereof. Proposed discharges to a publicly-owned sanitary sewer or reclaimed water distribution system shall be supported by a permit (WDR or NPDES) approved by the State or regional water board.
5. The Permittee shall ensure that groundwater is protected, as described in section I4 below.
6. The Permittee shall implement measures to ensure the design standards are maintained for the life of the best management practices and, as appropriate, include reliability and safety factor calculations.
7. Regional Water Board Authorities

To address exceedances of applicable water quality objectives or to otherwise protect waters of the state, including groundwater, within its jurisdiction, the applicable Regional Water Board Executive Officer may review site-specific information, require additional information, require the Permittee to implement additional best management practices, or require

modifications to or disapprove any infiltration best management practice as a permissible Compliance Option for the Permittee.

8. The State Water Board Executive Director or the applicable Regional Water Board Executive Officer may require monitoring of the infiltrated water if deemed to be a threat to groundwater.

I2.2 On-Site Compliance Option Requirements

The Permittee shall comply with the Future Post-Construction Requirements in section I2.4 and the requirements in section I3, including the design, maintenance, drainage, groundwater protections, and civil engineer certification requirements.

I2.3 Off-Site Compliance Option Requirements

1. The Permittee may enter into a local agreement with other entities to participate in the development, implementation, and operation of an off-site stormwater capture and/or infiltration best management practice (Off-Site best management practice) provided the following criteria are met:
 - a. The Off-Site best management practices meet the design criteria per section I3.b.
 - b. The municipal stormwater and authorized non-stormwater discharges must not be conveyed in a water of the U.S., water of the state, or an MS4 not party to the Off-Site Compliance agreement prior to reaching the Off-Site best management practices.
2. The Permittee shall work with the other entities to define participation in the development, implementation, operation of and responsibility for the Off-Site best management practices.
3. The Permittee and other entities shall ensure the agreement includes applicable protections for waters of the state for infiltration best management practices to demonstrate meeting the criteria in section I4.
4. The applicable Regional Water Board Executive Officer and local jurisdiction(s) representatives shall approve the Permittee's participation in the Off-Site Compliance Option. The applicable Regional Water Board shall provide at least a thirty day public notice to obtain written comments prior to the approval of the Off-Site Compliance Option.

I2.4 Future Post-Construction Requirements

1. The Permittee shall ensure that any future construction within the area of its jurisdiction draining to a stormwater capture best management practice being used to meet the requirements of these Compliance Options does not increase the amount of runoff from that drainage area beyond the designed capacity of its stormwater capture best management practices and/or the capacity allotted to the Permittee as part of an Off-Site

stormwater capture best management practice per sections I2 and I3 below.

2. The Permittee may use the designed capacity of its stormwater capture best management practices and/or the capacity allotted to the Permittee as part of an off-site stormwater capture best management practice to comply with Post-Construction water quality and retention requirements for future Small Projects and Regulated Projects per the Post-Construction Stormwater Management Program (sections D6 for Traditional and E6 for Non-traditional permittees), i.e., the Permittee may build a stormwater capture best management practice or enter into a legal agreement to attain an allotment from an Off-Site best management practice with additional capacity to account for future development in a drainage area.
3. Permittees implementing provision D6.11 Alternative Post-Construction Storm Water Management Requirements Based on Assessment and Maintenance of Watershed Processes shall ensure future development and re-development comply with those provisions if not provided in full by the stormwater capture best management practice.

I3 DESIGN CRITERIA

I3.1 General Design Criteria

Compliance Option best management practices implemented by the Permittee or implemented off-site by another entity for which the Permittee is claiming Off-Site Compliance shall:

1. Maintain the effective capacity to capture, infiltrate and/or evapotranspire the volume of runoff produced by rainfall events up to and including the 85th percentile 24-hour precipitation event based upon local, historical precipitation data and records for the entire drainage area claiming Compliance Option credit for the stormwater capture best management practices;
2. Be designed to capture, infiltrate, and/or evapotranspire drainage for only the following water sources;
 - a. Municipal stormwater runoff;
 - b. Authorized non-stormwater discharges as defined in section 5.8.1 of this Order; and
3. Be designed with a 72-hour drawdown time.
4. Be designed to drain from full to empty when no inflows are occurring, considering any relevant safety factors.
5. The Permittee shall implement measures to ensure the design standards for the life of the best management practices are maintained, and as appropriate, include reliability and safety factor calculations.

6. A Permittee implementing infiltration best management practices may include a shutoff mechanism (e.g., a valve that diverts discharge from entering the best management practices) in the design and implementation of infiltration best management practices. If including a shutoff mechanism is infeasible for a best management practice, appropriate spill prevention and response, and training shall be implemented.

I3.2 CERTIFICATION BY THE CALIFORNIA REGISTERED CIVIL ENGINEER

A California registered civil engineer shall certify the following with stamp and wet signature. Certifications shall document the following:

1. Compliance with hydrologic analyses, hydraulic calculations, and best management practices and operation parameters in section I3.
2. Compliance with water quality requirements in section I4.
3. Design of the 24-hour drawdown time or the design of additional storage volume beyond the compliance storm standard to offset longer drawdown time.
4. Design of the drainage of the On-Site Compliance best management practice from full to empty when no inflows occur, including relevant safety factors.
5. Design of best management practices safety factor and reliability calculations required in section I3.
6. Approval of the operation and maintenance plan.

I4. PROTECTION OF WATERS OF THE STATE

1. Discharges from the following sources are prohibited for any Permittee complying with a Compliance Option:
 - a. Water related to the cleaning and maintenance of the stormwater capture best management practice and,
 - b. Municipal stormwater from storms occurring below the 85th percentile 24-hour storm event and non-storm water.
2. The migration of pollutants that cause or contribute to the exceedance of a water quality objective in groundwater is prohibited. The Permittee shall ensure infiltration best management practices implemented for compliance with this attachment are designed and operated to:
 - a. Prevent captured and/or infiltrated stormwater from causing or contributing to the exceedance of a water quality objective in groundwater;
 - b. Prevent the migration of existing soil contamination to groundwater and not interfere with any active remedial activities for existing groundwater contamination in the vicinity of the stormwater capture best management practice; and,

- c. Address other similar factors which may degrade groundwater.
3. Infiltration and Groundwater Protection
 - a. Infiltration best management practices shall not cause or contribute to an exceedance of an applicable groundwater quality objective.
 - b. Infiltration best management practices used for compliance with this attachment shall comply with applicable local municipal ordinances, stormwater requirements, and design standards for the infiltration of stormwater and authorized non-stormwater discharges.
 - c. The soil through which infiltration occurs must have physical and chemical characteristics necessary to support infiltration rates and stormwater treatment to meet the compliance storm standards in this attachment.
4. If the Permittee determines, following implementation of a Compliance Option, that discharges from its MS4 are causing or contributing to an exceedance of a water quality standard or water quality objective, causing or threatening to cause a condition of pollution or nuisance, or are otherwise not in compliance with an applicable receiving water limitation, the Permittee shall implement additional control measures as necessary to reduce the pollutants in its discharge to the maximum extent practicable in compliance with the procedures specified in Order section 7.1. So long as the Permittee is implementing these procedures, it shall retain its deemed compliance status as detailed in section I1.2.2 of this Attachment.

I5 REPORTING REQUIREMENTS

I5.1 Design Reporting Requirements

The Permittee shall submit the following information via SMARTS 30 days prior to the initial operation of the best management practice:

1. Implementation Approach – The Permittee shall describe the approach for achieving the volume reduction requirements and multiple benefits, including how it will incorporate effective technologies, approaches, and practices, including green infrastructure and how it will protect groundwater.
2. Quantification – The Permittee shall demonstrate the following for volume reduction projects:
 - 2.1. The delineation of catchments/watersheds draining to the planned and/or implemented volume reduction projects, and
 - 2.2. The volume reduction project design, with operation and maintenance, will retain design-storm volumes and function in perpetuity.
 - 2.3. Bypass mechanisms for the discharged volume that is above and beyond the 85th percentile, 24-hour storm, into a local municipal storm system or receiving surface water body

3. Applicable information on any preexisting contamination in the soil or groundwater for any industrial or non-industrial pollutants at the facility that may be discharged or mobilized through infiltration to meet the protections in Section I4.

4. Operation and maintenance – For each volume reduction project the Permittee shall record with parcels where infrastructure for volume reduction projects are constructed, operation and maintenance plans and agreements certified by the California licensed civil engineer that includes but is not limited to, the following items:

4.1. inspection frequency;

4.2. titles of personnel authorized to conduct the best management practices inspections;

4.3. maintenance procedures for best management practices and installed pretreatment;

4.4. a maintenance schedule;

4.5. Latitude(s) and longitude(s) of best management practices;

I5.2 Schedule

1. Schedule –The Permittee shall include a schedule for completing the required volume reduction. The Permittee may propose a schedule that exceeds the permit term. If the schedule exceeds the implementation schedule specified in an applicable TMDL identified in the Fact Sheet (Attachment B), the Permittee shall request a time schedule order as specified in section G2.4 . The Volume Reduction Plan schedule must be updated to be consistent with any time schedule order.

2. Short-Term Schedule – The Permittee shall include a detailed short-term implementation schedule (including design and construction phases for retention facilities) for years three and five of the permit term. If the term of the permit is extended, the Permittee shall submit a second detailed short-term schedule for years six and ten.

3. Financial Strategy – The Permittee shall outline its funding procurement and management strategy to support project development and long-term maintenance and lifecycle costs.

I5.3 Off-Site Compliance Reporting Prior to Operation

Permittee's participating in an off-site Compliance Option shall additionally submit the following via SMARTS seven days prior to the initial operation of the:

1. A copy of the facility's agreement with other entities;

2. A copy of the facility's agreement approval from the other entities;

3. A copy of the facility's agreement approval from the Regional Water Board Executive Officer;

4. Information on, and description of, the actions the Permittee must take during the development, implementation, and operation of the Off-Site best management practices, as established in the approved agreement, that allows the facility's stormwater discharge to enter an Off-Site best management practices; and
5. A copy of the operation and maintenance plan(s) for the Off-Site best management practices that receive the facility's discharge.

15.4 Off-Site Compliance Annual Reporting

A Permittee implementing the Off-Site Compliance Option shall submit and certify via SMARTS the following information as part of the Annual Report to document the status of the local agreement project(s) and implementation progress:

1. Proof that participation in the local agreement is still valid, such as a copy of the current permit or the current authorization in writing from the system's agency that specifically allows the proposed stormwater flow rates);
2. Identification of the other entities that are part of the agreement including a contact name, title, email, and phone number of the local representative;
3. Summary of actions (including, but not limited to, monitoring, structural best management practices, non-structural best management practices, training) completed per the local agreement(s) during the reporting year;
4. Summary of actions (including, but not limited to, monitoring, structural best management practices, non-structural best management practices, training) planned per the local agreement(s) for implementation over the next two years to comply with the agreement with the local jurisdiction; and,
5. Any updates to the implementation schedule per the local agreement(s).

ATTACHMENT J – ACRONYMS, ABBREVIATIONS, AND GLOSSARY

Acronyms and Abbreviations

ASBS	Area of Special Biological Significance
CASQA	California Stormwater Quality Association
CEDEN	California Environmental Data Exchange Network
C.F.R.	Code of Federal Regulations
CWA	Clean Water Act
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
GIS	Geographic Information System
HCH	Hexachlorocyclohexane
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OP	Organophosphate pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCBs	Polychlorinated Biphenyls
SMARTS	Stormwater Multiple Application and Report Tracking System
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
QAPP	Quality Assurance Project Plan
QSD	Qualified SWPPP Developer

QSP	Qualified SWPPP Practitioner
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U.S. EPA	United States Environmental Protection Agency
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Water Code	California Water Code
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Glossary

Areas of Special Biological Significance (ASBS) – areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that maintenance of natural ocean water quality is assured.

At the Point of Discharge(s) – as used in the context of discharges to ASBS, in the surf zone immediately where runoff from an outfall meets the ocean water (a.k.a., at point zero).

Beneficial Uses – uses of water of the state protected against degradation, such as domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation and preservation of fish and wildlife, and other aquatic resources or preserves.

California Ocean Plan – the statewide water quality control plan for California near-coastal waters adopted by the State Water Board. The California Ocean Plan serves as statewide regulations to protect the beneficial uses and water quality of ocean water, adjacent coastal water bodies, and Areas of Special Biological Significance.

Catch Basin – a sump that captures a portion of the sediment, debris and other pollutants prior to discharging stormwater and dry weather flows to the storm drain system.

Catchment: – an area of land where water collects when it rains, often bounded by hills.

Community Based Social Marketing (CBSM) – a systematic way to change the behavior of communities to reduce their impact on the environment. Realizing that simply providing information is usually not sufficient to initiate behavior change, Community Based Social Marketing uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of overcoming these barriers.

Construction Site – the site of any project, including projects requiring coverage under the General Construction Permit, that involves soil disturbing activities including, but not limited to, clearing, grading, paving, disturbances to ground such as stockpiling, and excavation.

Core Discharge Monitoring – ASBS monitoring of stormwater effluents from the stormwater outfalls at the priority discharge locations.

Chlordane –the sum of chlordane-alpha, chlordane-gamma, chlordane-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

DDT – the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Dichlorobenzenes – the sum of 1,2- and 1,3-dichlorobenzene.

Discharge of a Pollutant – the addition of any pollutant or combination of pollutants to waters of the United States from any point source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Discharger – any responsible party or site owner or operator within a Permittee's jurisdiction that discharges waste.

Dry Weather – a season where prolonged dry periods occur; it usually corresponds to the period between May and September.

Endosulfan – the sum of endosulfan-alpha and -beta and endosulfan sulfate.

Erosion – the physical detachment of soil due to wind or water.

Erosion Control Measures – measures used to minimize soil detachment.

eRule – U.S. EPA's Electronic Reporting Rule that modernizes reporting under the Clean Water Act. The rule requires entities regulated under the Clean Water Act to report information electronically instead of filing paper reports. The rule also requires that regulatory authorities share data electronically with U.S. EPA. (U.S. EPA, [National Pollutant Discharge Elimination System \(NPDES\) Electronic Reporting Rule, Final Rule](#)).

Exceedances of Natural Ocean Water Quality – if results of post-storm receiving water quality testing at an ASBS indicates levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the permittee must re-sample the receiving water, pre- and post-storm. If after re-sampling the post-storm levels are still higher than the 85th percentile threshold of reference water quality data, and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded.

Full Capture System – a treatment control, or series of treatment controls, including but not limited to, a multi-benefit project or a low-impact development control that traps all particles that are 5-millimeters or greater, and has a design treatment capacity that is either:

1. Of not less than the peak flow rate, Q, resulting from a one-year, one-hour, storm in the sub-drainage area, or
2. Appropriately sized to, and designed to carry at least the same flows as, the corresponding storm drain.

[Rational equation is used to compute the peak flow rate: $Q = C \cdot I \cdot A$, where Q = design flow rate (cubic feet per second); C = runoff coefficient (dimensionless); I = design rainfall intensity (inches per hour, as determined per the rainfall isohyetal map specific to each region, and A = sub-drainage area (acres).]

To be considered a Full Capture System, the treatment control or series of treatment controls must be certified as a Full Capture System by the State Water Board Executive Director. Certified Full Capture systems are listed on the [State Water Board's Trash Implementation Program website](http://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html) (www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html).

Full Capture System Equivalency – the trash load that would be reduced if full capture systems were installed, operated, and maintained for all storm drains that capture runoff from the relevant areas of land. The full capture system equivalency is a trash load reduction target that the treatment quantifies by using an approach, and technically acceptable and defensible assumptions and methods for applying the approach, subject to the approval of State Water Board Executive Director.

Halomethanes – the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH – the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Flood Management Facilities – facilities or structures designed for the explicit purpose of controlling flood waters safely in or around populated areas. (e.g., dams, levees, bypass areas). Facilities or structures designed for the explicit purpose of controlling flood waters safely in or around populated areas (e.g., dams, levees, bypass areas). Flood management facilities do not include traditional stormwater conveyance structures (e.g. stormwater sewerage, pump stations, catch basins, etc.)

Grading – cutting and/or filling of the land surface to a desired slope or elevation.

Hotspot – specific operations and areas in a sub watershed that may generate high storm water pollution. Hotspots are high priority sites.

Hydromodification – modification of hydrologic pathways (precipitation, surface runoff, infiltration, groundwater flow, return flow, surface-water storage, groundwater storage, evaporation and transpiration) that results in negative impacts to watershed health and functions.

Illicit Discharge – any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges pursuant to an NPDES permit.

Impaired Waterbody – a waterbody with chronic or recurring monitored violations of the applicable numeric or narrative water quality criteria. An impaired water is either listed on the California 303(d) list or has not yet been listed but otherwise meets the criteria for listing. [The State of California's 303\(d\) list](http://www.swrcb.ca.gov/quality.html) can be found at <http://www.swrcb.ca.gov/quality.html>.

Impervious Surface – a surface covering or pavement of a developed parcel of land that prevents the land's natural ability to absorb and infiltrate storm water. Impervious surfaces include, but are not limited to; roof tops, walkways, patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering. Landscaped soil and pervious pavement, including pavers with pervious openings and seams, underlain with pervious soil or pervious storage material, such as a gravel layer sufficient to hold the specified volume of rainfall runoff are not impervious surfaces.

Industrial Development – development or redevelopment of property to be used for industrial purposes, such as factories, manufacturing buildings, and research and development parks.

Linear Underground/Overhead Projects (LUPs) – includes, but are not limited to, any conveyance, pipe, or pipeline for the transportation of any gaseous, liquid (including water and wastewater for domestic municipal services), liquescent, or slurry substance; any cable line or wire for the transmission of electrical energy; any cable line or wire for communications (e.g., telephone, telegraph, radio, or television messages); and associated ancillary facilities. Construction activities associated with LUPs include, but are not limited to, (a) those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment, and associated ancillary facilities); and include, but are not limited to, (b) underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or foundations, pole and tower installations, pipeline installations, welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

Low Impact Development (LID) – a sustainable practice that benefits water supply and contributes to water quality protection. Unlike traditional storm water management, which collects and conveys storm water runoff through storm drains, pipes, or other conveyances to a centralized storm water facility, LID takes a different approach by using site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store,

evaporate, and detain runoff close to the source of rainfall. LID has been a proven approach in other parts of the country and is seen in California as an alternative to conventional storm water management.

Maximum Extent Practicable (MEP) – the minimum required performance standard for implementation of municipal storm water management programs to reduce pollutants in storm water. Clean Water Act § 402(p)(3)(B)(iii) requires that municipal permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the iterative process.

Method Detection Limit (MDL) – the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. Part 136 Appendix B.

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

Mixed-use Development or Redevelopment – development or redevelopment of property to be used for two or more different uses, all intended to be harmonious and complementary.

Multi-Benefit Project – a treatment control project designed to achieve any benefits per section 10562(d) of the Water Code. Examples include projects to infiltrate, recharge or store stormwater for beneficial reuse; develop or enhance habitat and open space through stormwater and non-stormwater management; and reduce stormwater and non-stormwater runoff volume.

Municipal Separate Storm Sewer System (MS4) – "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that

discharges into waters of the United States. (ii) Designed or used for collecting or conveying storm water;(iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 C.F.R. 122.2." (40 C.F.R. 122.26(b)(8).)

In practical terms, operators of MS4s can include municipalities and local sewer districts, state and federal departments of transportation, public universities, public hospitals, military bases, and correctional facilities. The Storm Water Phase II Rule added federal systems, such as military bases and correctional facilities by including them in the definition of small MS4s.

National Pollutant Discharge Elimination System (NPDES) – a national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA.

Natural Ocean Water Quality – the water quality (based on selected physical, chemical and biological characteristics) that is required to sustain marine ecosystems, and which is without apparent human influence, i.e., an absence of significant amounts of: (a) man-made constituents (e.g., DDT); (b) other chemical (e.g., trace metals), physical (temperature/thermal pollution, sediment burial), and biological (e.g., bacteria) constituents at concentrations that have been elevated due to man’s activities above those resulting from the naturally occurring processes that affect the area in question; and (c) non-indigenous biota (e.g., invasive algal bloom species) that have been introduced either deliberately or accidentally by man. Discharges “shall not alter natural ocean water quality” as determined by a comparison to the range of constituent concentrations in reference areas agreed upon via the regional monitoring programs. If monitoring information indicates that natural ocean water quality is not maintained, but there is sufficient evidence that a discharge is not contributing to the alteration of natural ocean water quality, then the Regional Water Board may make that determination. In this case, sufficient information must include runoff sample data that has equal or lower concentrations for the range of constituents at the applicable reference area(s). Natural ocean water quality is determined from the ocean reference area monitoring.

New Development – land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision on an area that has not been previously developed. The following categories of work are only considered to be new development or redevelopment when performed alongside or as part of the same project as other work that meets the definition of new development or redevelopment: trenching, excavation and resurfacing associated with linear utility projects; pavement grinding and resurfacing of existing roadways; construction of new sidewalks, pedestrian ramps, or bike lanes on existing roadways; or routine replacement of damaged

pavement such as pothole repair or replacement of short, non-contiguous sections of roadway.

Non-Traditional Small MS4 – Federal and State operated facilities that can include universities, prisons, hospitals, military bases (e.g. State Army National Guard barracks, parks and office building complexes.)

Notice of Intent (NOI) – the application form by which dischargers seek coverage under General Permits unless the General Permit requires otherwise.

Nuisance – anything that meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; (3) occurs during, or as a result of, the treatment or disposal of wastes. ([Water Code](#), section 13050.)

Organophosphate Pesticides – a class of insecticides that includes chlorpyrifos, diazinon, and malathion.

Outfall – a point source as defined by 40 C.F.R. 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

PAHs (polynuclear aromatic hydrocarbons) – the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzo fluoranthene, benzo[k]fluoranthene, 1,12-benzo perylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene

Parking Lot – land area or facility for the parking or storage of motor vehicles used for business, commerce, industry, or personal use.

Polychlorinated biphenyls – the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Permittee – an entity named in and subject to the requirements of this General Permit.

Pervious Pavement – pavement that stores and infiltrates rainfall at a rate that exceeds conventional pavement and that is not considered an “impervious surface” per the definition above.

Point Source – any discernible, confined, and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection

systems, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollution – an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects the beneficial uses of the water or facilities which serve those beneficial uses.

Porter-Cologne Water Quality Control Act – The part of the Water Code that governs water quality regulation in California, established to protect water quality and beneficial uses. It applies to surface water, groundwater, and wetlands, and point source and nonpoint sources of pollution.

Potable Water – water that is safe for domestic use, drinking, and cooking.

Prioritized Best Management Practices – best management practices installed and/or implemented to address pollutants of concern. Where pollutant(s) of concern are undocumented or unidentified, prioritized BMPs are defined as BMPs installed and/or implemented to address common pollutants of concern (see pollutants of concern definition).

Priority Land Uses – developed sites, facilities, or uses (i.e., not simply zoned land uses) within a municipal separate stormwater sewer system permittee's jurisdiction from which discharges of Trash are regulated by the Trash Provisions as follows:

1. **High-Density Residential:** Land uses with at least ten (10) developed dwelling units/acre.
2. **Industrial:** Land uses where the primary activities on the developed parcels involve product manufacture, storage, or distribution (e.g., manufacturing businesses, warehouses, equipment storage lots, junkyards, wholesale businesses, distribution centers, or building material sales yards).
3. **Commercial:** Land uses where the primary activities on the developed parcels involve the sale or transfer of goods or services to consumers (e.g., business or professional buildings, shops, restaurants, theaters, vehicle repair shops, etc.).
4. **Mixed Urban:** Land uses where high-density residential, industrial, and/or commercial land uses predominate collectively (i.e., are intermixed).
5. **Public Transportation Stations:** Sites where public transit agencies' vehicles load or unload passengers or goods (e.g., bus stations and stops).

Receiving Water – surface water that receives regulated and unregulated discharges from activities on land.

Redevelopment – land-disturbing activity that results in the creation, addition, or replacement of exterior impervious surface area on a site on which some past development has occurred. The following categories of work are only considered to be new development or redevelopment when performed alongside or as part of the same project as other work that meets the definition of new development or redevelopment: trenching, excavation and resurfacing associated with linear utility projects; pavement grinding and resurfacing of existing roadways; construction of new sidewalks, pedestrian ramps, or bike lanes on existing roadways; or routine replacement of damaged pavement such as pothole repair or replacement of short, non-contiguous sections of roadway..

Reference Area – a watershed or waterbody segment determined or approved by the Water Board to be minimally disturbed by anthropogenic stresses but otherwise is representative of conditions of the assessed site, watershed, or water body segment.

Regulated Project – refers to projects subject to the new and redevelopment standards in this Order.

Regulated Small MS4 – a Small MS4 that discharges to a water of the United States or to another MS4 regulated by an NPDES permit and has been designated as regulated by the State Water Board or Regional Water Board under criteria provided in this Order.

Retrofitting – improving pollution and/or flow control at existing developments and facilities to protect or restore beneficial uses and watershed functions.

Riparian Areas – plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent waterbodies. Riparian areas have one or both of the following characteristics: 1) distinctively different vegetative species than adjacent areas, and 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms. Riparian areas are usually transitional between wetland and upland.

Rural Area – encompasses all population, housing, and territory not included within an urban area.

Sediments – solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sealevel.

Small MS4 – an MS4 that is not permitted under the municipal Phase I regulations, and which is “owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm

water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity....” (40 C.F.R. §122.26(b)(16)).

Smart Growth Projects – projects that produce multiple-benefits such as economic, social and environmental benefits. Smart growth projects commonly include high density development projects that result in a reduction of runoff volume per capita as a result of reduced impervious surface.

Source Control – land use or site planning practices, or structural or nonstructural measures, that aim to prevent runoff pollution by reducing the potential for contact with rainfall runoff at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff.

Surface Drainage – any above-ground runoff (sheet, shallow concentrated, and open channel) that flows into the storm drain system.

Standard Industrial Classification (SIC) – a federal system for classifying establishments by the type of activity in which they are engaged, using a four-digit code.

Storm Drain System – basic infrastructure in a municipal separate storm sewer system that collects and conveys storm water runoff to a treatment facility or receiving water body.

Storm Season –the months of the year from the onset of rainfall during autumn until cessation of rainfall in the spring. Also referred to as rainy season.

Storm Sewer System Asset Management – the practice of managing stormwater infrastructure capital assets to minimize the total cost of owning, managing and operating the systems.

Storm water – water from rain or snowmelt that flows over land or impervious surfaces and does not percolate into the ground.

Storm Water Treatment System – any engineered system designed to remove pollutants from storm water runoff by settling, filtration, biological degradation, plant uptake, media absorption/adsorption or other physical, biological, or chemical process. This includes landscape-based systems such as grassy swales and bioretention units as well as proprietary systems.

Structural Controls – any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Subwatershed – an area approximately 10,000 to 40,000 acres in area identified by Hydrologic Unit Code 12 in the federal Watershed Boundary Dataset.

Surface Water Ambient Monitoring Program (SWAMP) – the State Water Board’s program to monitor surface water quality; coordinate consistent scientific methods;

and design strategies for improving water quality monitoring, assessment, and reporting.

Surf Zone – the submerged area between the breaking waves and the shoreline at any one time.

Time of Concentration – the time it takes the most hydraulically-remote drop of water to travel through the watershed to a specific point of interest.

Total Maximum Daily Loads (TMDLs) – the maximum amount of a pollutant that can be discharged into a waterbody from all sources (point and nonpoint) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all waterbodies that do not meet water quality standards even after application of technology-based controls, more stringent effluent limitations required by a state or local authority, and other pollution control requirements such as BMPs.

Targeted Audience – group of people the Permittee has targeted to receive educational message.

Trash and Debris – trash consists of litter and particles of litter. California Government Code Section 68055.1 (g) defines litter as all improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or containers constructed of steel, aluminum, glass, paper, plastic and other natural and synthetic materials, thrown or deposited on the lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing.

Trash Provisions – Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to Control Trash and Amendment to Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. The Trash Provisions establish a narrative water quality objective for trash and provide implementation requirements for permitted dischargers.

Treatment – any method, technique, or process designed to remove pollutants and/or solids from polluted storm water runoff, wastewater, or effluent.

Urbanized Area – a densely settled core of census tracts and/or census blocks that have population of at least 50,000, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. It is a calculation used by the Bureau of the Census to determine the geographic boundaries of the most heavily developed and dense urban areas. From the [Phase II Final Rule](http://www.epa.gov/npdes/pubs/fact2-2.pdf) (Revised June 2012) at <http://www.epa.gov/npdes/pubs/fact2-2.pdf>.

Waste – includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including

waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waste Load Allocation – the portion of a receiving water's total maximum daily load that is allocated to one of its existing or future point sources of pollution. Waste load allocations constitute a type of water quality-based effluent limitation.

Water Efficient Landscape Ordinance – the Model Water Efficient Landscape Ordinance (Title 23, Division 2, Chapter 2.7 of the California Code of Regulations) took effect January 1 2010 and is designed to: (1) promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible; (2) establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects; (3) establish provisions for water management practices and water waste prevention for existing landscapes; (4) use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; (5) promote the benefits of consistent landscape ordinances with neighboring local and regional agencies; (6) encourage local agencies and water purveyors to use economic incentives that promote the efficient use of water, such as implementing a tiered-rate structure; and (7) encourage local agencies to designate the necessary authority that implements and enforces the provisions of the Model Water Efficient Landscape Ordinance or its local landscape ordinance.

Water Quality Control Plan (Basin Plan) – a Regional Water Board's master water quality control planning document that serves as the principal set of regulations for protection of water quality in a specific region. It designates beneficial uses and water quality objectives for waters of the State within each Region, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives and discharge prohibitions. Basin Plans are adopted and approved by the State Water Board, U.S. EPA, and the Office of Administrative Law where required.

Water Quality Objectives – the limits or levels of water quality elements or biological characteristics established to reasonably protect the beneficial uses of water or to prevent pollution problems within a specific area. Water quality objectives may be numeric or narrative.

Water Quality Standards – State-adopted and U.S. EPA-approved water quality standards for waterbodies. The standards prescribe the use of the waterbody and establish the water quality criteria that must be met to protect designated uses. Water quality standards also include the federal and state anti-degradation policy.

Watershed Management Zone – post-construction management zones based on common key watershed processes and receiving water type (creek, marine nearshore waters, lake, etc.).

Watershed Processes – functions that are provided by watersheds, including but not limited to, groundwater recharge, sediment supply and delivery, streamflow, and aquatic habitat.