

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

**TENTATIVE ORDER NO. 2011-XX-DWQ
NPDES NO. CAS000003
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
STATEWIDE STORM WATER PERMIT
WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

Effective Date: XXXXX, 2011

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FOR STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION

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STATE WATER RESOURCES CONTROL BOARD

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

NPDES Permit No. CAS000003

ORDER NO. 2011-XX-DWQ

STATEWIDE STORM WATER PERMIT
WASTE DISCHARGE REQUIREMENTS (WDRs)

FOR

THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

FINDINGS

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

Permit Application

1. The State of California, Department of Transportation (hereafter the Department) has applied to the State Water Board for reissuance of its statewide storm water permit and waste discharge requirements to discharge storm water and permitted non-storm water to waters of the United States under the National Pollutant Discharge Elimination System (NPDES) permit program.

On January 15, 2004, the Department submitted a proposed Storm Water Management Plan (SWMP). This SWMP serves as the Department's NPDES permit application to renew its previous statewide storm water permit (Order No. 99-06-DWQ). The State Water Board and Regional Water Quality Control Board (Regional Water Board) staff and the Department discussed and revised Best Management Practices (BMP) controls and many other components proposed in each section of the SWMP during numerous meetings from January 2004 to 2006. The Department submitted a revised SWMP in June 2007, which is incorporated by reference into this Order ([Department, 2007d](#)). The SWMP addresses storm water discharges from the properties, facilities, and activities throughout the State of California including the Department's headquarters and the District offices.

Background and Authority

Department Storm Water Permitting Background

2. Prior to issuance of the Department's first statewide storm water permit (Order No. 99-06-DWQ), storm water discharges from the Department's storm drain systems were regulated by individual permits issued by Regional Water Boards. On July 15, 1999, the State Water Board adopted a statewide permit to consolidate storm water permits previously adopted by Regional Water Boards. This statewide permit regulates storm water and non-storm water discharges from the Department's properties and facilities, and discharges associated with

operation and maintenance of properties and facilities. The Department's properties include all right-of-way owned by the Department. The Department's facilities include, but are not limited to, maintenance stations/yards, equipment storage areas, storage facilities, fleet vehicle parking and maintenance areas and warehouses with material storage areas. This Order also regulates discharges associated with ~~design and~~ maintenance of properties and facilities and discharges of storm water associated with ongoing highway operation.

Federal Authority

3. In 1987, the United States Congress amended the federal Clean Water Act (CWA) and added ~~section~~§ 402(p), which established a framework for regulating municipal and industrial storm water discharges under the NPDES Permit Program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) promulgated federal regulations for controlling pollutants in storm water runoff discharges (known as Phase I storm water regulations). Phase I storm water regulations require permit coverage for storm water discharges from large and medium ~~municipal separate storm sewer systems~~Municipal Separate Storm Sewer Systems (MS4s), certain categories of industrial facilities, and construction activities disturbing five or more acres of disturbed land. On December 8, 1999, ~~U.S.~~EPA promulgated regulations, known as Phase II storm water regulations, which require NPDES permit coverage for storm water discharges from small MS4s and construction sites which disturb one to five acres of land.

State Authority

4. California Water Code ~~section~~§ 13376 provides that any person discharging or proposing to discharge pollutants to waters of the United States shall apply for and obtain Waste Discharge Requirements (WDRs). (For this permit, the State term "WDRs" is equivalent to the federal term "NPDES permits" as used in the ~~Clean Water Act [CWA]~~). This Order is issued pursuant to ~~section~~§ 402 of the ~~federal Clean Water Act (CWA)~~ and implementing regulations adopted by ~~the U.S. Environmental Protection Agency (USEPA)~~ and chapter 5.5, division 7 of the California Water Code (commencing with ~~section~~§ 13370). It shall serve as an NPDES permit for point source discharges to surface waters. This Order also serves as WDRs pursuant to ~~Article~~article 4, ~~Chapter~~chapter 4, ~~Division~~division 7 of the Water Code (commencing with ~~section~~§ 13260). Applicable State regulations on discharge of waste are contained in the California Code of Regulations (~~CCR~~), Cal. Code Regs., tit. 23, Division 3, Chapter 9.

Storm Water Definition

Storm Water Discharge

5. Storm water discharges consist only of those discharges that originate from precipitation events. Storm water is defined in 40 ~~CFR~~F.R. § 122.26(b)(13) as storm water runoff, snowmelt runoff, and surface runoff and drainage. During precipitation events, storm water picks up and transports pollutants into and through ~~Municipal Separate Storm Sewer Systems (MS4)~~MS4s and ultimately to waters of the United States.

Non-Storm Water Discharge

6. Non-storm water discharges consist of all discharges from an MS4 that do not originate from precipitation events. Non-storm water discharges to an MS4 are prohibited, conditionally

exempt from prohibition, or regulated separately by an NPDES permit. The categories of conditionally exempt non-storm water discharge are specified at 40 CFR, F.R. § 122.26(iv)(B)(1). Non-storm water discharges that are regulated by a separate NPDES permit are not subject to the discharge prohibition. Prohibited non-storm water discharges include conditionally exempt discharges that are found to be a source of pollutants to waters of the United States. Illicit discharges must also be prohibited. An illicit discharge is defined in 40 CFR, F.R. § 122.26(b)(2) as "any discharge to a municipal storm sewer that is not composed entirely of storm water except discharges pursuant to an NPDES ~~Permit~~permit (other than the NPDES Permit for discharges from the Municipal Separate Storm Sewer System) and discharges resulting from fire fighting activities." Provision B of this Order addresses non-storm water discharge.

~~—One category of conditionally exempt non-storm water discharges is irrigation water. Irrigation water from agricultural sources periodically discharges to the Department's MS4. If these discharges are regulated by WDRs or conditional waivers of WDRs and if the Department cooperates with organizations conducting monitoring of such discharges, the discharges are not expected to be a source of pollutants and need not be prohibited by the Department.~~

Performance Standards

Performance Standard for Discharges from MS4s

7. CWA ~~Section~~§ 402(p) establishes performance standards for discharges from MS4s. CWA ~~section~~§ 402(p)(3)(B) requires MS4 owners and operators to reduce pollutant discharges from MS4s to the maximum extent practicable (MEP). This Order prohibits storm water discharges that do not comply with the MEP standard.
8. The MEP standard involves applying BMPs that are effective in reducing or eliminating the discharge of pollutants to the waters of the United States. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff. MEP may require treatment of the storm water runoff if it contains pollutants. BMP development is a dynamic process, and the menu of BMPs contained in a SWMP may require changes over time as experience is gained and/or the state of the science and art progresses. ~~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 approach."~~

Permit Coverage

Discharges Regulated by this Permit

9. This Order regulates the following discharges:
 - a. Storm water discharges from all Department-owned MS4s;
 - b. Storm water discharges from the Department's vehicle maintenance, equipment cleaning operations facilities and any other non-industrial facilities with activities that have the potential of generating significant quantities of pollutants; and

- c. Certain categories of non-storm water discharges as listed under Provision B.1 of this Order.

This Order does not regulate storm water discharges from leased office spaces, Department owned batch plants or any other industrial facilities, as industrial facilities defined in the Statewide Industrial General Permit. The Department will obtain coverage for storm water discharges associated with industrial activities under the Statewide Industrial General Permit for each batch plant and industrial facility, and shall comply with applicable requirements. While this Order does not regulate storm water discharges associated with industrial activities, it does impose contractor requirements for certain industrial facilities.

This Order does not regulate discharges from the Department's construction activities, including dewatering effluent discharges from construction projects. Instead, the Department will obtain coverage for storm water discharges associated with construction activities under Order No. 2009-0009-DWQ Statewide Construction General Permit. While this Order does not regulate storm water discharges associated with construction activities, it does impose electronic filing, notification, reporting and contractor requirements for certain construction projects, and imposes limitations on types of materials that may be used during construction which may have an impact on post-construction discharges. Any discharges from a site occurring after completion of construction are fully subject to the requirements of this Order.

Some Regional Water Boards have issued specific requirements for dewatering effluent discharges in their regions. The Department will consult with the appropriate Regional Water Board and comply with the applicable dewatering requirements in each region.

Department Activities and Discharges

Department Activities

10. The Department is primarily responsible for the design, construction, management, and maintenance of the State highway system including; freeways, bridges, tunnels, and facilities such as corporation yards, maintenance facilities, rest areas, weigh stations, park and ride lots, toll plazas and related properties. The Department is also responsible for initial emergency spill response and cleanup for unauthorized discharges of waste associated with the State highway system.

Department Discharges

11. The Department's discharges include storm water and non-storm water discharges generated from:
 - a. Maintenance and operation of State-owned right-of-way;
 - b. Department storage and disposal areas;
 - c. Department facilities;
 - d. Department Airspaces; and
 - e. Other properties, facilities and activities.

The Department discharges either directly to surface waters or indirectly through municipal storm water conveyance systems. These surface waters include creeks, rivers, reservoirs, wetlands, saline sinks, lagoons, estuaries, bays, and the Pacific Ocean and tributaries thereto. These surface waters are waters of the United States as defined in 40 C.F.R. § 122.2. As specified, this Order regulates the Department’s municipal storm water and non-storm water discharges.

Potential Pollutants

12. Discharges of storm water and non-storm water from Department properties, facilities, and activities have been shown to contribute pollutants to waters of the United States. As such, these discharges may be causing or threatening to cause violations of water quality objectives and can have damaging effects on human health and aquatic ecosystems. The quality and quantity of these discharges vary considerably and are affected by many environmental factors including hydrology, geology, land use, climatology and chemistry, and by controllable management factors including maintenance practices, spill prevention and response activities, public education (i.e., concerning trash and other storm water pollutants) and pollution prevention.

Pollutant sources from the Department properties, facilities, and activities include motor vehicles, highway surface materials such as fine particles of asphalt and concrete, highway maintenance products, construction site runoff, erodible shoulder materials, eroding cut and filled slopes, abrasive sand and deicing salts used in winter operations, abraded tire rubber, maintenance facility runoff, illegal connections, illegal dumping, fluids from accidents and spills, and landscape care products.

Pollutant categories include, but are not limited to, metals (such as copper, lead, and zinc), synthetic organic compounds (pesticides), Polycyclic Aromatic Hydrocarbons (PAHs) from vehicle emissions, oil and grease, Total Petroleum Hydrocarbons (TPH), sediment, nutrients (nitrogen and phosphorus fertilizers), debris (trash and litter), pathogens, and oxygen demanding substances (decaying vegetation, animal waste, and other organic matter).

Characterization Monitoring

13. Under the previous permit (Order No. 99-06-DWQ), the Department conducted a comprehensive, multi-component storm water monitoring program. The monitoring was conducted at more than 180 sites statewide, yielding more than 60,000 data points. The data have been used to evaluate the effectiveness of the Department’s maintenance facility pollution prevention plans and highway operation control measures. This information is also used to identify pollutants of concern in the Department’s discharges.

Department Discharge Characterization Studies

14. The Department has compared the monitoring results from the 2002 and 2003 Runoff Characterization Studies (California Department of Transportation, 2003)¹ to California Toxics Rule (CTR) objectives and to several surface water quality objectives considered potentially relevant to storm water runoff quality. The sources of other water quality objectives considered were National Primary Drinking Water Maximum Contaminant Levels

¹ References are found in Attachment IX of this Order.

(40 ~~CFR~~-F.R. §141.1), USEPA Action Plan for Beaches and Recreational Waters, U.S.-EPA Aquatic Life Criteria, California Department of Public Health Maximum Contaminant Levels, and California Department of Fish and Game Recommended Criteria for Diazinon and Chlorpyrifos. Constituents were prioritized as high, medium, and low, according to a percentage estimated by the Department by which the most stringent water quality objective was exceeded. Lead, copper, zinc, aluminum, diazinon, chlorpyrifos, and iron were found to be high priority constituents in the Department's runoff.

Department Discharges that are Subject to MS4 Permit Regulations

15. An MS4 is a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains. An MS4 is designed or used for collecting or conveying storm water. It is not a combined sanitary sewer and is not part of a Publicly Owned Treatment Works (POTW). CWA ~~section~~§ 402(p) and ~~40CFR~~40 C.F.R. § 122.26 (a)(v) give the State authority to regulate discharges from an MS4 on a system-wide or jurisdiction-wide basis. All MS4s under the Department's jurisdiction are considered one system, and are regulated by this Order. Therefore, all storm water and exempted and conditionally exempted non-storm water discharges from the Department owned MS4 ~~is~~are subject to the requirements in this Order.

Maintenance and Construction Activities not Subject to the Construction General Permit

16. Some maintenance and construction activities such as roadway and parking lot repaving and resurfacing may not be subject to the Construction General Permit. Such activities may involve grinding and repaving the existing surface and have the potential to mobilize pollutants, even though it may not involve grading or land disturbance. The Department's Maintenance Staff Guide (Department, 2007b), Project Planning and Design Guide (Department, 2010) and the California Stormwater Quality Association (CASQA) California Construction Stormwater BMP Handbook (CASQA, 2009) specify BMPs for paving and grinding operations. The Department is required to implement BMPs for such operations to prevent the release of pollutants to the MEP.

Department Construction Projects Involving Lead Contaminated Soils

17. Department construction projects may involve soils that contain lead in quantities that meet the State definition of hazardous waste but not the federal definition. The Department of Toxic Substances Control (DTSC) has issued a variance (V09HQSCD006) effective July 1, 2009, allowing the Department to place soil containing specific concentrations of aerially deposited lead under pavement or clean soil. In addition to complying with the terms of the variance, the Department also needs to notify the appropriate Regional Water Boards to determine the appropriate regulation of these soils.
18. Past monitoring data show that storm water runoff from the Department's facilities contains pollutants that may adversely affect the beneficial uses of receiving waters. Facilities not subject to the Industrial General Permit are required to implement BMPs to reduce the discharge of pollutants from these facilities to the MEP.

Provisions of This Order

19. Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 ~~CFR section~~ F.R. § 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. This Order requires implementation of BMPs to control and abate the discharge of pollutants in storm water to the MEP. ~~For discharges in the Lake Tahoe Hydrologic Unit, however, numeric effluent limitations have been established in the regional water quality control plan and therefore apply to this Order.~~ To assist in determining if the BMPs are effectively achieving MEP standards, this Order requires effluent and receiving water monitoring. The monitoring data will be used to determine the effectiveness of the applied BMPs and to make appropriate adjustments or revisions to BMPs that are not effective.

Receiving Water Limitations

20. The effect of the Department's storm water discharges on receiving water quality is highly variable. For this reason, this Order requires the Department to design its storm water program to achieve compliance with water quality standards, over time through an iterative approach. If discharges are found to be causing or contributing to an exceedance of an applicable Water Quality Standard, the Department is required to revise its BMPs (including use of additional and more effective BMPs).

Discharges to Areas of Special Biological Significance

21. The California Ocean Plan (Ocean Plan) lists 34 coastal marine waters that the State Water Board has designated as Areas of Special Biological Significance (ASBS). An ASBS is a coastal area designated by the State Water Board as requiring protection of species or biological communities. The Department discharges storm water into the following ASBS:
- Redwoods National Park ASBS
 - Saunders Reef ASBS
 - James V. Fitzgerald ASBS
 - Año Nuevo ASBS
 - Carmel Bay ASBS
 - Point Lobos ASBS
 - Julia Pfeiffer Burns ASBS
 - Salmon Creek Coast ASBS
 - Laguna Point to Latigo Point ASBS
 - Irvine Coast ASBS
22. The Ocean Plan prohibits waste discharges into ASBS. The Ocean Plan allows the State Water Board to grant exceptions to this prohibition, provided that: (1) the exception will not compromise protection of ocean waters for beneficial uses, and (2) the public interest will be served. The Department has applied to the State Water Board for exceptions to this prohibition. This Order prohibits discharges to ASBS waters unless an exception is granted by the State Water Board.

New Development and Re-development Design Standards

23. 40 CFR, F.R. § 122.26(d)(2)(iv)(A)(2) requires municipal storm water permittees to implement a new development and redevelopment program to reduce the post-construction generation and transport of pollutants. Development can involve grading and soil compaction, an increase in impervious surfaces (roadways, roofs, sidewalks, parking lots, etc.), and a reduction of vegetative cover, all of which increase the amount of rainfall that ends up as runoff, and decrease the particle size and increase the load of watershed sediment. The increase in runoff generally leads to increased pollutant loading from watersheds, even if post-construction pollutant concentration are similar to pre-construction concentrations. The accelerated erosion and deposition resulting from an increase in runoff and a decrease in the size and load of watershed sediment generally causes a stream channel to respond by deepening and widening and detaching from the historic floodplain. The magnitude of response is dependant on geology, land use, and channel stability at the time of the watershed disturbance. Increased pollutant loads and alteration of the runoff/sediment balance have the potential to negatively impact the beneficial uses of receiving waters including streams, lakes, wetlands, ground water, oceans, bays and estuaries, and the biological habitats supported by these aquatic systems.
24. Department projects have the potential to negatively impact stream channels and downstream receiving waters through modification of the existing runoff hydrograph. The hydromodification requirements in this Order are “effluent limitations,” which are defined by the ~~Clean Water Act~~ CWA to include any restriction on the quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources. ~~Clean Water Act,~~ CWA § 502(11).
25. Low Impact Development (LID) is 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 uses site design and storm water management to maintain the site’s pre-development runoff rates and volumes by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source.
26. The State Water Board adopted a precedential decision concerning the use of Standard Urban Storm Water Mitigation Plans (SUSMPs) (Order WQ 2000-11) on October 5, 2000. The SUSMP in that case required sizing design standards for post-construction BMPs for specific categories of new development and redevelopment projects. Order WQ 2000-11 found that provisions in the SUSMPs, as revised in the order, reflected MEP. The ~~Low Impact Development~~ LID requirements, post-construction requirements for impervious surface and the design standards in this Order are consistent with Order WQ 2000-11 and meet the requirement for development of a SUSMP.

Self-Monitoring Program

27. Effluent and receiving water monitoring are necessary to evaluate the effectiveness of BMP measures and to track compliance with water quality standards. This Order requires the Department to conduct effluent and receiving water monitoring. Toxicity levels found in the

Department's discharges indicate a need to monitor acute and chronic toxicity according to USEPA protocols.

Storm Water Management Plan (SWMP)

28. The Department submitted a proposed SWMP as part of its NPDES renewal application. The State Water Board has reviewed the proposed SWMP. That SWMP is a revision of a previous SWMP submitted under Order No. 99-06-DWQ. The SWMP describes the procedures and practices that the Department proposes to reduce or eliminate the discharge of pollutants to storm drainage systems and receiving waters. The proposed SWMP, which will be implemented in accordance with the iterative approach and updated in accordance with the requirements of this Order, meets the requirement of the ~~Clean Water Act~~CWA to reduce the discharge of pollutants to the MEP. Implementation of the SWMP will also prevent or reduce pollutant discharges that cause or contribute to exceedances of water quality standards.
29. The SWMP and any future modifications or revisions that are approved by the State Water Board are integral to and enforceable components of this Order. Any documents incorporated into the SWMP by reference that specify the manner in which the Department will implement the SWMP shall be consistent with the requirements of this Order.
30. This Order requires the Department to submit an Annual Report each year to the State Water Board. The Annual Report serves the purpose of evaluating, assessing, and reporting on each relevant element of the storm water program, and revising activities, control measures, BMPs, and measurable objectives, as necessary, to meet the applicable standards.
31. Proposed SWMP revisions require approval of the State Water Board's Executive Director and are subject to public notice and the opportunity for a public hearing in accordance with the provisions of this Order.

Total Maximum Daily Load (TMDL) Requirements

32. TMDLs are ~~numerical~~ calculations of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety. Discharges from the Department's MS4 are considered point source discharges. This Order implements applicable WLAs and LAs that have been adopted by the Regional Water Boards and approved by the Office of Administrative Law and the ~~U.S.~~EPA. The TMDL allocations in this Order are expressed in a manner consistent with the assumptions and requirements of the TMDL from which they are derived.
33. The Department reported in its 2008-09 Annual Report to the State Water Board that it is subject to over 50 TMDLs and is in the implementation phase of over 30 TMDLs. WLAs and LAs for some TMDLs are shared jointly among several dischargers, with no specific mass loads assigned to individual dischargers. In some of these cases, multiple dischargers are

assigned a grouped or aggregate waste load allocation, and each discharger is jointly responsible for complying with the aggregate waste load allocation.

34. In accordance with 40 C.F.R. § 122.44(d)(1)(vii)(B), NPDES water quality-based effluent limitations (WQBELs) shall be consistent with the assumptions and requirements of ~~TMDL WLAs~~. any available WLA prepared by the State and approved by USEPA. Due to the nature of storm water discharges, and the typical lack of information on which to base numeric WQBELs, federal regulations (40 C.F.R. § 122.44 (k)(2)) allow for the implementation of BMPs to control or abate the discharge of pollutants from storm water. In a memorandum dated November 12, 2010, USEPA issued revisions to its November 22, 2002, policy memorandum on establishing NPDES permit requirements based on TMDL WLAs. The revisions recommended that WLAs be translated into numeric WQBELs in MS4 permits where feasible to clarify permit requirements and improve accountability and enforceability. The revisions also reaffirmed the permitting authority's discretion to rely on BMPs as appropriate, based on an analysis of the facts and circumstances surrounding the permit or the underlying WLAs, and as supported by the administrative record of the permit.
35. This Order requires the Department to comply with all TMDLs for which it has been assigned a WLA, where roads in general have been assigned a LA, or where the Department is specifically assigned actions to implement the TMDL, either individually or jointly. Compliance may include, but is not ~~be~~-limited to, implementation of BMPs and control measures contained in TMDL implementation plans. — sufficient to achieve the WLA, or a demonstration that the numeric WLA has been achieved.
36. This Order does not contain TMDL-specific monitoring requirements. Since TMDL monitoring may be shared by multiple dischargers, it is best coordinated at the Regional Water Board level. TMDL monitoring requirements will be addressed by the Regional Water Boards as part of their TMDL-related implementation activities. ~~This Order does require the Department to prepare TMDL-related monitoring and reporting plans as provided in the applicable Basin Plan Amendments and Regional Water Board orders. These requirements, including the requirement to implement BMPs contained in the TMDL implementation plans, are expected to be sufficient to implement the WLAs in each TMDL for which the Department has been assigned a WLA.~~ The Regional Water Boards may require additional monitoring pursuant to Water Code § 13383.
- ~~36~~37. TMDL WLAs in this Order are effluent limits that are not limited by the MEP standard. Implementation requirements for many TMDLs are partially or fully specified in Regional Water Board Basin Plans and are an enforceable part of this Order. ~~It is not feasible to specify in this Order.~~ These requirements, where fully specified, are expected to be sufficient to implement the WLAs in each TMDL for which the Department has been assigned a WLA. Where complete implementation requirements where such implementation requirements have not been specified or approved by the Regional Water Boards. Accordingly, as of the date of the adoption of this Order, it is necessary that specific requirements and clear deliverables and actions be specified to ensure consistency of this Order permit with assigned WLAs and to provide clear and enforceable conditions for the Department. It is anticipated that Regional Water Board staff will develop such specific TMDL permit

requirements where necessary by Year 1 and that Attachment IV of this Order will be reopened consistent with provision E.10.c. for incorporation of these requirements into the Order.² This Order additionally requires the Department to ~~submit TMDL Compliance Plans~~ develop a Supplemental TMDL Implementation Plan for approval by the ~~Regional State Water Board Executive Officer~~ for any TMDLs for which specific deliverables and action items are not sufficiently clear in the relevant Basin Plan or have not been subsequently developed by the Regional Water Boards and incorporated into this Order. For specified TMDLs under the jurisdiction of the San Francisco Bay Regional Water Board, specific TMDL implementation requirements ~~are given~~ have already been developed and incorporated into the Tentative Order in Attachment IV as supported by the Fact Sheet.

Non-Compliance

~~37~~38. NPDES regulations require the Department to notify the Regional Water Board and/or State Water Board of anticipated non-compliance with this Order (40 CFR section F.R. § 122.41(l)(2)); or of instances of non-compliance that endanger human health or the environment (40 CFR section F.R. § 122.41(l)(6)).

Regional Water Board and State Water Board Enforcement

~~38~~39. The Regional Water Boards and the State Water Board will enforce the Provisions and requirements of this Order.

Region Specific Requirements

Basin Plans

~~39~~40. Each Regional Water Board has adopted a Water Quality Control Plan (Basin Plan) for the watersheds within its jurisdiction. Basin Plans identify the beneficial uses for each water body and the water quality objectives necessary to protect them. The Department is subject to the prohibitions and requirements of each Basin Plan.

Region Specific Requirements

~~40~~41. Regional Water Boards have identified Region-specific water quality issues and concerns pertaining to discharges from the Department's properties. Region-specific requirements to address these issues are included in this Order.

~~41. The Lahontan Regional Water Quality Control Board's Basin Plan contains numeric effluent limitations for storm water discharges to surface waters in the Lake Tahoe Hydrologic Unit. Compliance with these numeric effluent limitations is required by this Order.~~

~~42. The requirements of this Order are consistent with the terms of the Consent Decree entered to resolve litigation in United States v. California Department of Transportation (No. 97-0037-EIG), and with subsequent agreements and understandings between the parties.~~

² Regional Board staff will prepare supporting documentation explaining how the developed TMDL permitting requirements implement each TMDL and demonstrating that the effluent limits and conditions are consistent with the assumptions and requirements of any applicable WLA and, where a BMP-based approach to permit limitations is selected, that the BMPs will be sufficient to implement applicable WLAs.

Local Municipalities and Preemption

~~43~~42. Storm water and non-storm water from MS4s that are owned and managed by other NPDES permitted municipalities discharge to storm water conveyance systems owned and managed by the Department. This Order does not supersede the authority of the Department to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within its jurisdiction as allowed by State and federal law.

Storm water and non-storm water discharged from the Department's rights-of-way, properties, facilities, and activities discharge to storm water conveyance systems managed by other NPDES permitted municipalities. This Order does not preempt or supersede the authority of the permitted municipalities to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within their jurisdiction as allowed by State and federal law.

Anti-Degradation Policy

~~44~~43. 40 C.F.R. ~~section~~ § 131.12 requires that state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal anti-degradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plans implement, and incorporate by reference, both the State and federal anti-degradation policies. This Order is consistent with the anti-degradation provision of 40 C.F.R. ~~section~~ F.R. § 131.12 and State Water Board Resolution No. 68-16.

Endangered Species Act

~~45~~44. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code ~~sections~~ §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A. ~~sections~~ §§ 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the State and the United States. The Department is responsible for meeting all requirements of the applicable Endangered Species Act.

California Environmental Quality Act (CEQA)

~~46~~45. The action to adopt an NPDES Permit is exempt from the provisions of CEQA (Public Resources Code ~~section~~ § 21100, et. seq.), pursuant to ~~section~~ § 13389 of the California Water Code— (County of Los Angeles et al., v. California Water Boards et al., (2006), 143 Cal.App.4th 985).

Public Notification

4746. The Department, interested agencies, and persons have been notified of the State Water Board's intent to reissue requirements for storm water discharges and have been provided an opportunity to submit their written comments and recommendations. State Water Board staff prepared a Fact Sheet and Response to Comments, which are incorporated by reference as part of this Order.

Public Hearing

4847. The State Water Board, through public testimony in public meetings and in written form, has received and considered all comments pertaining to this Order.

4948. The State Water Board has considered the costs of complying with this Order and whether the required BMPs meet the minimum "maximum extent practicable" standard required by federal law. For requirements imposed for municipal storm water, this Order may have an incremental effect on costs to the Department above and beyond the costs from the Department's prior permit. Such costs may be incurred in complying with the ~~SUSMP~~, post-construction, hydrograph modification, Low Impact Development, and monitoring and reporting requirements of this Order. Additional costs will also be incurred in correcting non-compliant discharges.³

These incremental costs are necessary to reduce the discharge of pollutants to the MEP.

5049. This Order supersedes Order No. 99-06-DWQ.

5150. This Order serves as an NPDES permit pursuant to CWA ~~Section~~ § 402 or amendments thereto, and shall become effective ~~one-hundred (100)~~ fifty (50) days after the date of its adoption, provided that the Regional Administrator, USEPA, Region IX, expresses no objections.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code, regulations, and plans and policies adopted thereafter, and to the provisions of the CWA and regulations and guidelines adopted thereafter, that the Department shall comply with the following:

A. GENERAL DISCHARGE PROHIBITIONS

1. Storm water discharges from the Department's Municipal Separate Storm Sewer System (MS4) containing pollutants that have not been reduced to the Maximum Extent Practicable (MEP), are prohibited. The Department shall achieve the pollutant reductions described in this Prohibition through implementing the approved Storm Water Management Plan (SWMP) and the provisions in this Order.

³ Compliance with TMDL waste load allocations is not subject to the MEP standard and the cost of compliance was not considered.

2. Discharge to Areas of Special Biological Significance (ASBS) is prohibited unless an exception has been granted by the State Water Board. Implementation requirements for discharges to ASBS which have been approved by the State Water Board are enforceable under this Order.
3. Discharge of material other than storm water, or discharge that is not composed entirely of storm water, to waters of the United States or another permitted MS4 is prohibited, except as conditionally exempted under Section B of this Order or authorized by a separate National Pollutant Discharge Elimination System (NPDES) permit.
4. The discharge of storm water or conditionally exempt non-storm water that causes or contributes to the violation of water quality standards or water quality objectives (collectively WQs), the California Toxics Rule (CTR), or impairs the beneficial uses established in a Water Quality Control Plan, or a promulgated policy of the State or Regional Water Boards, is prohibited. The Department shall comply with all discharge prohibitions contained in Regional Water Board Basin Plans (Basin Plans).
5. The discharge of storm water to surface waters of the State or waters of the United States in a manner causing or threatening to cause a condition of pollution or nuisance as defined in Water Code ~~section § 13050, or that causes or contributes to an exceedance of a water quality standard(s) specified in Statewide Water Quality Control Plans, the California Toxics Rule (CTR), and/or applicable criteria in Regional Water Board Water Quality Control Plans (Basin Plans)~~, is prohibited.
6. The discharge of biological and residual pesticides and their breakdown byproducts to waters of the U.S. that are impaired by the pesticides used, or drainages tributary to those waters, is prohibited. Impaired waters are those waters not meeting water quality standards pursuant to § 303(d) of the CWA (Impaired Waterbodies).
7. Discharge of wastes or wastewater from road-sweeping vehicles or from other maintenance activities to any surface waters or to any storm drain leading to surface water bodies is prohibited unless authorized under this or another NPDES permit.
78. The dumping, deposition, or discharge of waste by the Department directly into waters of the State or adjacent to such waters in any manner that may allow its being transported into the waters is prohibited unless authorized by the Regional Water Board.
89. The discharge of sand, silt, clay, or other earthen materials from any activity in quantities which cause deleterious bottom deposits, turbidity, or discoloration in waters of the State or which unreasonably affect or threaten to affect beneficial uses of such waters, is prohibited.

B. NON-STORM WATER DISCHARGE PROHIBITIONS

1. The Department shall effectively prohibit non-storm water discharges into its storm water conveyance system unless such discharges are either:

- a. Authorized by a separate NPDES permit; or
- b. Exempt or conditionally exempt in accordance with ~~Provision~~Provisions B.2. or B.3. of this NPDES permit

2. Exempt Non-storm Water Discharges

Non-storm water discharges that pass through or under the Department's right-of-way and that do not co-mingle with discharges from the MS4 are exempt from Prohibition B.1.

3. Conditionally Exempt Non-storm Water Discharges

The following non-storm water discharges are conditionally exempt from Prohibition B.1 unless the Department, or the State Water Board Executive Director, ~~or the appropriate Regional Water Board Executive Officer~~ identifies them as sources of pollutants to receiving waters. For discharges identified as sources of pollutants, the Department shall either eliminate the discharge or otherwise effectively prohibit the discharge.

- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration ~~[(as defined at 40 CFR (Code of Federal Regulations), F.R. § 35.2005(20))]~~ to MS4s;
- d. Uncontaminated pumped ground water;
- e. Foundation drains, including slope lateral drains;
- f. Springs;
- g. Water from crawl space pumps;
- h. Footing drains;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing⁴;
- l. ~~Landscape~~Minor, incidental discharges of landscape irrigation water⁵;
- m. Discharges from potable water sources⁴;
- n. Irrigation water, ~~including agricultural irrigation water~~⁶;
- o. ~~Lawn~~Minor incidental discharges from lawn watering;
- p. Individual residential car washing; and
- q. Dechlorinated swimming pool discharges.

⁴ In order to remain conditionally exempt, discharges shall be dechlorinated prior to discharge.

⁵ In order to remain conditionally exempt, landscape irrigation systems must be designed, operated and maintained to control non-incident runoff. See definition of incidental runoff in Attachment VIII.

~~⁶ In order to remain conditionally exempt, agricultural irrigation water non-storm water discharges (run on to the MS4) must also be regulated by WDRs or a conditional waiver of WDRs, with the Department providing reasonable support to the monitoring activities of the regulated discharger.~~

34. Some Regional Water Boards have separate dewatering and/or “de minimus” NPDES discharge permits or Basin Plan requirements for some or all of these listed non-storm water discharges. The Department shall check with the appropriate Regional Water Board to determine if a specific non-storm water discharge requires coverage under a separate NPDES permit. ~~Some Regional Water Boards have prohibited or restricted certain non-storm water discharges. These are identified under the Region Specific requirements in Attachment V.~~
45. The Department is not required to prohibit emergency fire fighting flows (i.e., flows necessary for the protection of life or property). Discharges associated with emergency firefighting do not require ~~Best Management Practices (BMPs)~~, but they are recommended if feasible. As part of the SWMP, the Department shall develop and implement a program to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) as specified in the SWMP.
56. The Department shall submit an update to the **COMPREHENSIVE NON-STORM WATER REPORT** in its Annual Report analyzing each category of conditionally exempt non-storm water discharge listed above. For each category of discharge, the Department shall examine and evaluate its MS4 non-storm water monitoring results for the presence of elevated levels of pollutants by comparing the results with the receiving water criteria specified in appropriate Basin Plans, CTR criteria, Ocean Plan criteria (where applicable) and previous monitoring results. For those categories of discharge that have been determined to be sources of pollutants to receiving waters, the Department shall propose:
- Appropriate BMP control measures to effectively prohibit the non-storm water pollutant discharges and minimize the adverse impacts of such sources;
 - Procedures for their implementation;
 - Appropriate effluent or receiving water monitoring; and
 - A timeline for implementation.

If the State Water Board Executive Director ~~or a Regional Water Board Executive Officer~~ determines that any category of conditionally exempt non-storm water discharge is a source of pollutants, the State Water Board Executive Director ~~or the Regional Water Board Executive Officer~~ may require the Department to conduct additional monitoring and submit a report on the discharges. The State Water Board Executive Director ~~or the Regional Water Board Executive Officer~~ may also order the Department to cease a non-storm water discharge if it is found to be a source of pollutants.

C. EFFLUENT LIMITATIONS

- ~~The Department shall reduce the discharge of pollutants from its MS4 to waters of the United States to the MEP.~~
- ~~Within the Lake Tahoe Hydrologic Unit, the Department shall comply with storm water numeric effluent limitations, or as necessary to~~

achieve TMDL WLAs established for discharges ~~to surface waters as specified in the Lahontan Regional Water Quality Control Board's Basin Plan. These limitations apply to storm water discharges to MS4 drainage systems, Lake Tahoe, and tributaries to Lake Tahoe~~ by the Department.

D. RECEIVING WATER LIMITATIONS

1. Receiving water quality objectives, as specified in the Water Quality Control Plans and promulgated policies and regulations of the State and Regional Water Boards, are applicable to discharges from the Department's facilities and properties.
2. The discharge of storm water from a facility or activity shall not cause or contribute to an exceedance of any applicable water quality standard.
3. Storm water discharges shall not cause the following conditions to create a condition of nuisance, or to adversely affect beneficial uses of waters of the United States, ~~or cause any of the following conditions:~~
 - a. Floating or suspended solids, deposited macroscopic particulate matter, or foam;
 - b. Bottom deposits or aquatic growth;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin, and/or;
 - e. Toxic or deleterious substances present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
4. The Department shall comply with Sections A.4, D.2 and D.3 of this Order through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP and other requirements of this Order including any modifications. The SWMP shall be designed to achieve compliance with Sections A.4, D.2 and D.3 of this Order. If exceedance(s) of WQS persist notwithstanding implementation of the SWMP and other requirements of this Order, the Department shall assure compliance with Sections A.4, D.2 and D.3 of this Order by complying with the procedure specified at Section E.2.c.3)c) of this Order.
5. ~~So long as~~Provided the Department has complied with the procedure set forth in Provision E.2.c.3)c) of this Order and is implementing the revised SWMP required by Provision E.1., the Department ~~does is~~ not ~~have~~required to repeat the ~~same~~ procedure called for in Provision E.2.c.3)c) for continuing or recurring exceedances of the same

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receiving water limitations unless directed by the State Water Board's Executive Director or Regional Water Board Executive Officer to develop additional BMPs.

E. PROVISIONS

1. Storm Water Management Plan (SWMP)

- a. The Department shall update, maintain and implement an effective SWMP that reduces pollutants in storm water discharges to the MEP. The SWMP shall identify and describe the BMPs that shall be used. The SWMP shall be reviewed annually and modified as necessary to maintain an effective program in accordance with the procedures of this Order. The SWMP shall reflect the principles that storm water management is to be a year-round proactive program to eliminate or control pollutants at their source or to reduce them from the discharge by either structural or nonstructural means when elimination at the source is not possible.
- b. The SWMP shall contain the following elements:
 - 1) Overview
 - 2) Management And Organization
 - 3) Monitoring And Discharge Characterization Program
 - 4) Project Planning And Design
 - 5) BMP Development
 - 6) Construction
 - 7) Maintenance Program Activities, including facilities operations
 - 8) Non-Departmental Activities
 - 9) Non-Storm Water Activities/ Discharges
 - 10) Training
 - 11) Public Education and Outreach
 - 12) Region Specific Activities (See Section 5 and Attachment V)
 - 13) Program Evaluation
 - 14) Measurable Objectives
 - 15) Reporting
 - 16) References
- c. All policies, guidelines, and manuals referenced by the SWMP and related to storm water are intended to facilitate implementation of the SWMP, and shall be consistent with the requirements of this Order.
- d. The SWMP shall define terms in a manner that is consistent with the definitions in 40 C.F.R. § 122.2. This includes, but is not limited to, the definitions for pollutant, waters of the United States, and point source. Where there is a conflict between the SWMP and the language of this Order, the language of this Order shall govern.
- e. Unless otherwise specified in this Order, proposed revisions to the SWMP shall be submitted to the State Water Board Executive Director for approval by October 1 of each year, as part of the Annual Report. The Department shall revise all other appropriate manuals to reflect modifications to the SWMP.

- f. Upon receipt of a proposed SWMP revision requiring approval of the State Water Board's Executive Director, including revisions required by the iterative procedure described in Provision E.2.c.3)c) of this Order, the proposed revision will be publicly noticed for thirty days on the State Water Board's website and via the storm water electronic notification list. During the public notice period, members of the public may submit written comments or request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing. Upon review of the request or requests for a public hearing, the Executive Director may, in ~~his or her~~ discretion, schedule a public hearing prior to approval of the SWMP revision. The Executive Director shall schedule a hearing if there is a significant degree of public interest in the proposed revision. If no public hearing is conducted, the Executive Director shall consider all public comments received and may approve the SWMP revision if it meets the conditions set forth in this Order and upon issuance of a written response to comments. Any SWMP revision approved by the Executive Director will be posted on the State Water Board's website. Significant changes to the SWMP will be presented to the State Water Board for approval.
- g. The Department shall maintain for public access on its website the latest approved version of the SWMP. The Department shall update the SWMP on its website within 30 days of approval of revisions by the State Water Board.

2. Storm Water Program Implementation Requirements

a. Overview

The Department shall provide an overview of the Storm Water Program in the SWMP. The overview will include:

- 1) A statement of the SWMP purpose;
- 2) A description of the regulatory background;
- 3) A description of the SWMP applicability;
- 4) A description of the relationship of the Permit, SWMP, and related Department documents; and
- 5) A description of the permits addressed by the SWMP.

b. Management and Organization

The Department shall provide in the SWMP an overview of its management and organizational structure, roles and responsibilities of storm water personnel, a description of the role and focal point of the Department's storm water program, and a description of the Storm Water Advisory Teams.

The Department shall implement the program specified in the SWMP. The Department shall also implement any additional requirements contained in this Order.

- 1) *Coordination with Local Municipalities*

- a) The Department is expected to comply with the lawful requirements of municipalities and other local, regional, and/or State agencies regarding discharges of storm water to separate storm sewer systems or other watercourses under the agencies' jurisdictions.
- b) The Department shall include a **MUNICIPAL COORDINATION PLAN** in the SWMP. The plan shall describe the specific steps that the Department will take in establishing communication, coordination, cooperation, and collaboration with other MS4 storm water management agencies and their programs including establishing agreements with municipalities, flood control departments, or districts as necessary or appropriate. The Department shall report on the status and progress of interagency coordination activities in each Annual Report.

2) *Legal Authority*

- a) The Department shall establish, maintain, and certify that it has adequate legal authority through ~~ordinance~~, statute, permit, contract or other means to control discharges to and from the Department's properties, facilities and activities.
- b) The Department has provided a statement certified by its chief legal counsel that the Department has adequate legal authority to implement and enforce each of the key regulatory requirements contained in 40 C.F.R. §§ 122.26(d)(2)(i)(A-F). The Department shall submit annually, as part of the Annual Report, a **CERTIFICATION OF THE ADEQUACY OF LEGAL AUTHORITY**.

3) *Fiscal Resources*

- a) The Department shall maintain adequate fiscal resources to comply with this NPDES Permit. This includes but is not limited to:
 - i) Implementing and maintaining all BMPs;
 - ii) Implementing an effective storm water monitoring program; and
 - iii) Retaining qualified personnel to manage the storm water program.
- b) The Department shall submit a **FISCAL ANALYSIS** of the storm water program annually. At a minimum, the fiscal analysis shall show:
 - i) The allocation of funds to the Districts for compliance with this Order;
 - ii) The funding for each program element;
 - iii) A comparison of actual past year expenditures with the current year's expenditures and next year's proposed expenditures;
 - iv) How the funding has met the goals specified in the SWMP and District workplans; and
 - v) Description of any cost sharing agreements with other responsible parties

in implementing the storm water management program.

c) The fifth year report shall contain a **BUDGET ANALYSIS** for the next permit cycle.

4) *Practices and Policies*

The Department shall identify in the SWMP any of the Department's practices and policies that conflict with implementation of the storm water program. The Department shall annually propose changes, including changes to implementation schedules, needed to resolve these conflicts and otherwise effectively implement the SWMP and the requirements of this Order.

5) *Inspection Program*

The Department shall have an inspection program to ensure that this Order and the SWMP are implemented, and that facilities are constructed, operated, and maintained in accordance with this Order and the SWMP. The program shall include training for inspection personnel, documentation of field activities, a reporting system that can be used to track effectiveness of control measures, enforcement procedures (or referral for enforcement) for noncompliance, procedures for taking corrective action, and responsibilities and responsible personnel of all affected functional offices and branches.

The inspection program shall also include standard operating procedures for documenting inspection findings, a system of escalating enforcement response to non-compliance (including procedures for addressing third party (i.e., contractor) non-compliance, and a system to ensure the timely resolution of all violations of this Order or the SWMP. The Department shall delegate adequate authority to appropriate personnel within all affected functional offices and branches to require corrective actions (including stop work orders).

6) *Incident Reporting - Non-Compliance and Potential/Threatened Non-Compliance*

The Department shall report all known incidents of non-compliance with this Order. Non-compliance may be emergency, field, or administrative. The Department shall submit a completed **INCIDENT REPORT FORM** (Attachment I) and provide verbal notifications as soon as practicable, but no later than the time frames specified in Attachment I. Submission of an Incident Report Form is not an admission by the Department of a violation of this Order. The types of incidents requiring non-compliance reporting are discussed in Attachment I. The State Water Board or Regional Water Board may require additional information.

The Department shall report all potential or threatened non-compliance to the State Water Board and appropriate Regional Water Board ~~as soon as it is known~~ in accordance with the ~~Department.~~ "Anticipated noncompliance" provisions described in Attachment VI (Standard Provisions). The report shall describe the timing, nature and extent of the anticipated non-compliance. An Incident Report

Form is not required for anticipated non-compliance. Anticipated non-compliance may be for field or administrative incidents only.

c. Monitoring and Discharge Characterization Requirements

The Department shall implement the monitoring program specified in the SWMP. The Department shall also implement any additional monitoring requirements contained in this Order and any TMDL-specific requirements contained in Regional Water Board Basin Plans or Regional Water Board Orders.

1) *Characterization of Discharges*

The Department completed and submitted to the State Water Board the “Storm Water Monitoring & Data Management Discharge Characterization Study Report, Final Report, November 2003” (Characterization Study). The Characterization Study identifies major points of discharge and the concentration of selected constituents from these points of discharge. For discharges ~~identified~~ in the Characterization Study that ~~contain pollutants~~ meet the criteria in Provision E.2.c.2)a)ix, the Department shall investigate the source of the pollutants and, where appropriate, eliminate any illegal connections/illicit discharges (IC/ID) or implement BMP programs. ~~The Department shall notify the Regional Water Boards and affected public agencies of pollutant discharges and any anticipated future discharge~~ follow the procedure specified in Provision E.2.c.2)a)ix.

The Department shall conduct characterization monitoring of slope lateral drains. The Department shall sample for constituents as indicated in Attachment II, unless the Regional Water Board has approved a more limited set of monitoring constituents. A minimum of 5 sites shall be monitored each year. Sites shall be identified in the Monitoring Site Selection Report and are subject to review by the Regional Water Board. Monitoring results shall be reported in the Monitoring Results Report.

2) *Water Quality Monitoring*

a) The Department shall implement a discharge monitoring program that conforms to the following:

- i) Sampling shall include both storm water and non-storm water discharges.
- ii) All samples shall be analyzed by a certified or accredited laboratory as required by Water Code ~~section~~ § 13176.
- iii) Constituents to be analyzed, analytical methods, and reporting limits, are listed in Attachment II. On a site specific basis, the Department need not analyze for constituents in Attachment II where the Regional Water Board finds that there is little chance that they are present in the discharge.
- iv) ~~Acute and Toxicity~~
 - (1) Chronic toxicity analyses shall be conducted at all non-storm water sites with a minimum ~~—~~ of three test species (vertebrate, invertebrate, and plant) ~~in accordance with the most recently approved U.S.~~

~~Environmental Protection Agency methods, respectively. Test methods are identified in Attachment II.~~ Acute toxicity analyses shall be conducted at all sites with a minimum of two test species (vertebrate and invertebrate).

- (2) The presence of chronic toxicity shall be estimated as specified in Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002; Table IA, 40 C.F.R. § 136 and its subsequent amendments or revisions. The test endpoint data are analyzed using a t-test approach as described in USEPA test method manuals (see EPA/821/R-02/012, page 86), or in USEPA's NPDES Test of Significant Toxicity Implementation Document (June 2010).
- (3) The presence of acute toxicity shall be estimated as specified in Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA/821-R-02-012, October 2002, Table 1A, 40 C.F.R. § 136 and its subsequent amendments or revisions. The test endpoint data are analyzed using a standard t-test approach. Statistical analysis methods shall be consistent with USEPA test method manuals (see EPA/821/R-02/012, page 86).
- (4) Toxicity Identification Evaluations (TIEs) shall be conducted when required by a Regional Water Board (see Provision E.2.c.3)d) below).
- v) Sampling frequency shall be sufficient to characterize seasonal trends. A minimum of three wet weather samples, including the first flush ~~measurements, and two,~~ shall be collected. Two dry weather samples are required at sites discharging ~~both storm water and~~ non-storm water. ~~A minimum of three wet weather samples are required at sites discharging only storm water, including first flush measurements⁷.~~ There shall be a minimum of three weeks between storm water sampling events, and six weeks between non-storm water sampling events. If there is insufficient precipitation in desert areas to collect three samples in a season, the sampling shall be carried over into the following year and the data combined.

Toxicity analyses shall be conducted on the first wet weather (first flush) sample and the first dry weather (non-storm water) sample at each site. Toxicity testing need not be continued at a given site if toxicity is not present in the first wet- and dry weather samples.

- vi) On a site specific basis, the Department may propose alternative test methods to the Regional Water Board in accordance with 40 C.F.R. §§ 136.4 and 136.5.
- vii) -No additional monitoring is required pursuant to this Order in Areas of Special Biological Significance (ASBS) that are subject to monitoring pursuant to the California Ocean Plan. Monitoring conducted on direct

⁷ With the concurrence of the Regional Water Board, non-storm water samples may be collected during the wet season. Non-storm water samples shall not be collected within five days of measureable rainfall.

discharges to non-ASBS ocean waters shall be performed according to Ocean Plan requirements. Monitoring conducted under Ocean Plan requirements shall be reported with monitoring data collected under this Order.

viii) The Department shall submit, separate from the Annual Report, by October 1 of each year, a **MONITORING SITE SELECTION REPORT (SSR)** that shall identify and justify sampling locations. The first year SSR shall establish a candidate pool of sampling locations. The candidate pool shall be representative of the diverse geographic, climatic, hydrologic, demographic (rural and urban), and land use conditions in the State and shall not be limited to locations which do not receive run-on from outside the right-of-way. Locations shall include:

- (1) Highway runoff (sites with high traffic congestion)
- (2) Highway runoff (free-flowing sites)
- (3) Commercial vehicle inspection and weigh stations
- (4) Park and ride lots
- (5) Roadside rest areas
- (6) Toll plazas
- (7) Maintenance yards
- (8) Treatment control sites
- (9) Material storage facilities and sweeper and ~~vactor~~vacuum truck waste storage and disposal sites

The candidate pool shall contain a minimum of ~~1,000~~500 locations; however, for the first year SSR, the candidate pool may be limited to 200 sites. The pool shall be increased to 400 sites in the second year, and 500 sites in the third year. Sites may be designated for storm water sampling only, non-storm water sampling only, or both storm water and non-storm water. The Department shall consult with the Regional Water Boards to identify the sampling locations. There shall be at least one site in each watershed for which the Department has been assigned a TMDL wasteload allocation or other implementation actions in Attachment IV.

The Department shall identify, in consultation with the Regional Water Boards, a minimum total of 100 ~~locations out of the pool which will be sampled in the coming year. Sites to be sampled shall be reported in the SSR~~storm water and non-storm water sites for sampling per year. There may be less than 100 sites from the candidate pool where both storm water and non-storm water are sampled at a given site.

~~ix) For the following year's SSR, and each year thereafter, the Department must continue to include locations from the previous year's SSR for every monitoring location where the criteria below are met. For the first year, sites in watersheds where the Department has not been assigned a TMDL waste load allocation shall be allocated uniformly among the~~

Regional Water Boards. State Water Board staff will re-evaluate the allocation of sites in Year 2.

ix) Figure 1 is a flow chart of the water quality monitoring process. For every location where the criteria or action levels in Table 1 are not ~~met~~equaled or exceeded, monitoring may be discontinued and the Department ~~is not required to include the location in the next year's SSR.~~ Instead, will select a new location ~~may be chosen~~ from the candidate pool. ~~The criteria for continued monitoring are as follows:~~

~~(1) Analytical results for the season indicate three or more exceedances of a water quality objective (WQO) for any single constituent in Attachment II, or~~

Figure 1. Water Quality Monitoring Flowchart

- ~~(2) Analytical results for the season indicate two or more exceedances of a WQO by 50 percent or more for any single constituent, or~~
- ~~(3) Analytical results show acute toxicity (TUa>1) in three or more samples, or~~
- ~~(4) The Regional Water Board orders continued monitoring (e.g., to determine long term trends).~~

~~Notwithstanding the number of locations requiring continued monitoring, no less than 50 locations in each year's SSR shall be new locations chosen from the candidate~~

pool.

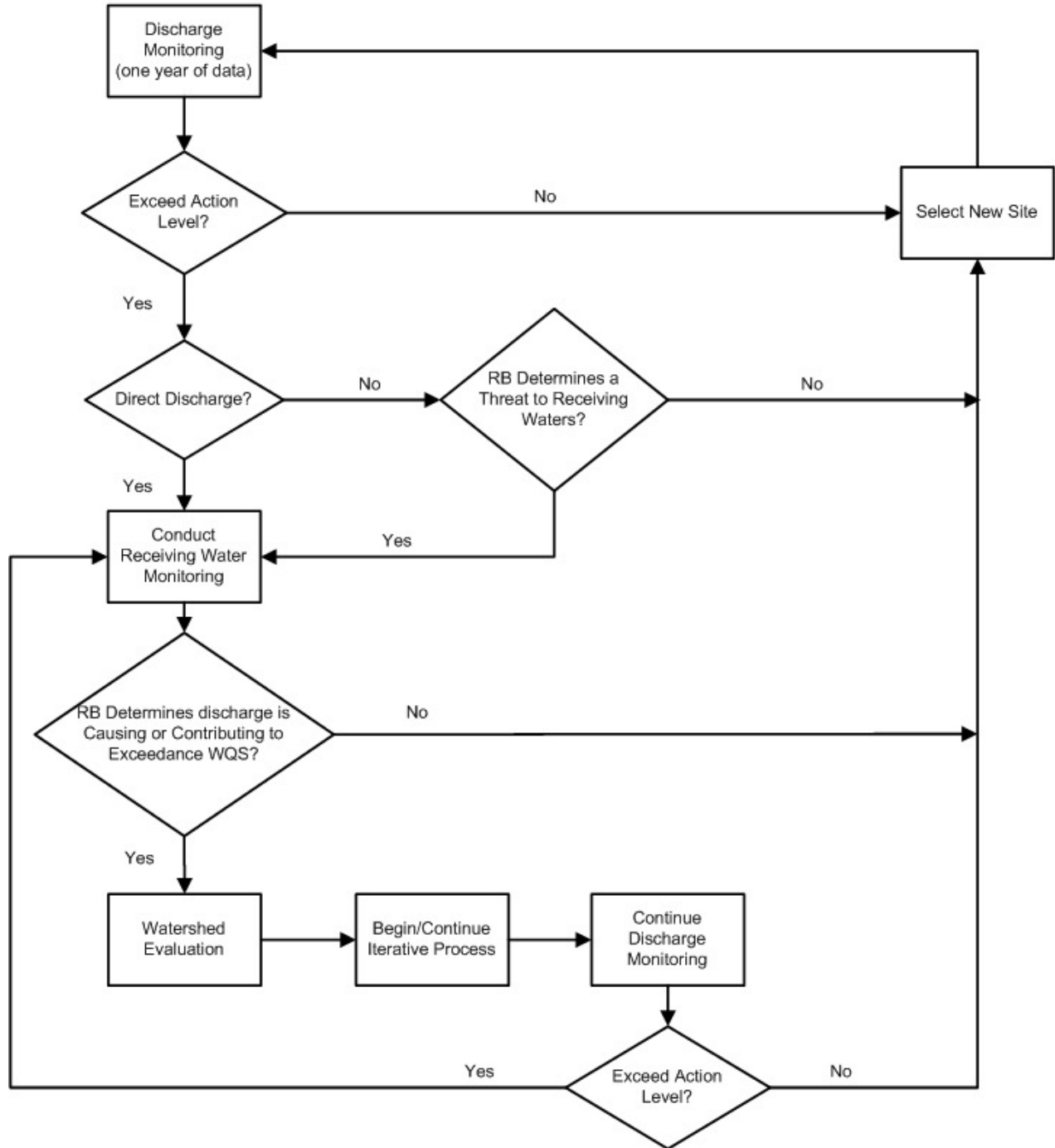


Table 1. Water Quality Action Levels

| Storm Water | | Non-Storm Water | |
|---|---|---|--|
| Direct Discharge ⁸ | Indirect Discharge ⁹ | Direct Discharge | Indirect Discharge |
| <u>≥ 3 exceedances of a WQO¹⁰, or</u> <u>≥ 2 exceedances of a WQO by 50% or more, or</u> <u>≥ 3 TUa > 1</u> | <u>≥ 3 exceedances of a WQO by 10% or more, or</u> <u>≥ 2 exceedances of a WQO by 50% or more, or</u> <u>≥ 3 TUa > 1</u> | <u>≥ 2 exceedances of a WQO, or</u> <u>≥ 1 exceedance of a WQO by 50% or more, or</u> <u>≥ 2 TUa > 1 or TUc > 0</u> | <u>≥ 2 exceedances of a WQO by 10% or more, or</u> <u>≥ 1 exceedance of a WQO by 50% or more, or</u> <u>≥ 2 TUa > 1 or TUc > 0</u> |

Where these action levels are exceeded for a direct discharge to receiving waters, the Department may discontinue discharge monitoring and shall conduct receiving water monitoring. For indirect discharges to receiving waters, the Regional Water Board Executive Officer shall determine if the discharge is a threat to receiving water. If the discharge does not pose a threat, the Department may discontinue monitoring and select a new site from the candidate pool. If receiving water monitoring shows that the discharge is not causing or contributing to an exceedance of a water quality standard, the Department may discontinue monitoring and select a new site from the candidate pool.

If the Department or the Regional Water Board determines that the discharge is causing or contributing to an exceedance of a water quality standard, the Department shall conduct a watershed analysis to determine other Department sources contributing to the exceedance. The Department shall begin the iterative process and install or modify its BMPs in consideration of all sources contributing to the exceedance, and resume discharge monitoring for the constituents causing or contributing to the exceedance. If action levels are not exceeded after revising the BMPs or making other changes to the discharge (e.g., prohibiting the discharge), the Department may discontinue monitoring and select a new site from the candidate pool. If action levels continue to be exceeded, the Department shall resume receiving water monitoring and follow the process described above and in Figure 1.

⁸ A direct discharge to a receiving water is any discharge from the MS4 that does not meet the definition of an indirect discharge.

⁹ An indirect discharge to a receiving water is any discharge from the MS4 that is conveyed to the receiving water through 300 feet or more of an unlined ditch or channel as measured between the discharge point from the MS4 and the receiving water.

¹⁰ Water quality objective

- x) Regional Water Board Executive Officers are authorized to add monitoring locations to the SSR's candidate pool, and designate specific locations in the SSR for monitoring.
- xi) The Department may propose changes to the sampling and analytical requirements for locations needing continued monitoring to focus on problem constituents. ~~With the approval of the Regional Board, constituents~~Constituents not meeting the criteria in ~~Section Provision E.2.c.2)a)~~ix) need not be included in subsequent monitoring.
 - ~~xii) Sampling may be discontinued at a location when appropriate control measures have been implemented and subsequent monitoring does not trigger the criteria for continued monitoring in Section ix) above.~~
- b) ~~The Department shall implement a receiving~~Receiving water monitoring program. ~~The Department shall conduct receiving water monitoring and shall follow the iterative procedure specified in~~shall be conducted when required under Provision E.2.c.3)c) ~~of this Order when effluent analytical results indicate:~~2)a)ix).
 - ~~i) Three or more exceedances of a WQO in a single season for any constituent in Attachment II, or~~
 - ~~ii) Two or more exceedances of a WQO by 50 percent or more in a single season for any constituent in Attachment II, or~~
 - ~~iii) Acute toxicity (TU_a>1) in three or more samples in a single season.~~

Receiving water monitoring shall include the constituents exceeding these criteria and shall include testing for chronic toxicity when required by a Regional Water Board. Testing for acute toxicity need not be conducted unless it was present in the effluent. ~~The appropriate Regional Board may waive the requirement for receiving water monitoring if it finds there is minimal potential for a specific discharge to contribute to a water quality objective exceedance or toxicity in the receiving water.~~

The Department may propose to meet this requirement through cooperative monitoring efforts with other entities. Alternate receiving water monitoring proposals must meet all requirements of this section and are subject to approval by the Regional Water Board.

Receiving water monitoring data and laboratory results shall be comparable with the Surface Water Ambient Monitoring Program (SWAMP) and data management plan. Global Positioning System (GPS) coordinates and highway post mile information shall be included for all monitoring locations. Guidance

on data comparability can be found in the SWAMP Quality Assurance Program Plan (QAPrP) at:

http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml#qa

and at:

<http://swamp.mpsl.mlml.calstate.edu/swamp-comparability/database-comparability>

The Department shall also prepare, maintain, and implement a Quality Assurance Project Plan (QAPP) in accordance with SWAMP QAPP and data reporting requirements, and the USEPA QAPP, EPA AQ/R5, 3/01. Guidance for preparing the QAPP is available at:

<http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/quality-assurance/quality-assurance-project-plan-guidance>

[In addition to the reporting required under Provision E.2.c.2\)g\), the Department shall upload receiving water monitoring data to the California Data Exchange Network \(CEDEN\) at:](#)

<http://www.ceden.org/>

[Receiving water monitoring may be discontinued when appropriate control measures have been implemented and effluent monitoring does not trigger the criteria in Provision E.2.c.2\)a\)ix\).](#)

- c) The Department shall prepare a **LONG TERM MONITORING PROGRAM** to assess long term trends in storm water quality. The long term monitoring program shall include both discharge and receiving water monitoring and shall address Pollutants of Concern [and impacts of hydromodification. The Department may utilize existing sites, and may cooperate with other entities conducting monitoring for other or related purposes.](#) The program shall be submitted to the State Water Board [Executive Director](#) for approval within six months of the adoption of this Order and shall be implemented in ~~year~~Year 2 of the Permit. The Department shall review discharge data sets collected annually for discussion in the Monitoring Results Report. Discharge data will be categorized by geographical location (e.g., hydrologic basin) and by point of collection (e.g., edge of pavement). Other categories, such as site conditions, may also be assigned based on review of the data. The Long Term Monitoring Program will define how data will be analyzed with respect to:
- Regional impacts
 - Source
 - Hot spots
 - Physical factors

- d) When additional information is needed to assess existing or potential adverse impacts by storm water discharges, to evaluate the effectiveness of the SWMP, or to demonstrate compliance with permit requirements, Regional Water Boards may require additional monitoring and reporting by the Department to the extent that such additional requirements are authorized by the Water Code. Regional Water Boards may also request that the State Water Board add monitoring constituents to the monitoring program.
- e) Upon request by the State Water Board or a Regional Water Board, the Department shall submit copies of laboratory analysis reports within 10 days of receiving the laboratory analysis reports.
- f) The State Water Board Executive Director may revise the water quality monitoring and reporting requirements in this Order as necessary to protect water quality. For all revisions to the monitoring and reporting requirements that are not minor permit modifications pursuant to 40 C.F.R. § 122.63, the State Water Board Executive Director shall follow the same public process provided for SWMP revisions.
- g) The Department shall submit, separate from the Annual Report, a **MONITORING RESULTS REPORT (MRR)** by October 1 of each year.
 - i) The MRR shall include the results of the past fiscal year's monitoring activities including ~~TMDL monitoring~~, effluent and receiving water quality monitoring, long term trend monitoring, and any monitoring conducted pursuant to requirements of the California Ocean Plan.
 - ii) The Department shall specifically highlight sample values that exceed applicable WQs, including toxicity objectives. Complete sample results or lab data need not be submitted, but must be retained and provided to the Regional Water Board or State Water Board upon request.
 - iii) The MRR shall include a summary of sites requiring corrective actions needed to achieve compliance with this Order, and a review of any iterative procedures at sites needing corrective actions.
 - iv) The reporting period for the MRR shall be July 1 of the prior year through June 30 of the current year.

3) *Compliance Monitoring and Reporting*

- a) The Department shall review and propose any updates, as needed, to the Non-compliance Reporting Plan for Municipal and Construction Activities in section 9.4.1 of the SWMP. The plan shall identify the staff in each District Office and Regional Water Board to send and receive **INCIDENT REPORT FORMS** (Attachment I). The Department shall continue to implement the July 2008 Construction Compliance Evaluation Plan or any updated plan as approved by the Executive Director.

- b) The Department shall summarize, by District, all non-compliance incidents, including construction, in the Annual Report. The summary shall include incident dates, types, locations, and the status of the non-compliance incidents.
- c) Receiving Water Limitations Compliance
 - i) Upon a determination by the Department or the Regional Water Board Executive Officer that a discharge is causing or contributing to an exceedance of an applicable WQS, the Department shall provide verbal notification within 5 days, and within ~~10 business~~30 days thereafter submit a report to the appropriate Regional Water Board with a copy to the State Water Board. ~~This provision does not apply where the pollutant causing the exceedance is subject to a waste load allocation listed in Attachment IV of this Order and the Department is in violation of that waste load allocation.~~
 - ii) The report shall describe BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance. The report shall include an implementation schedule. The Regional Water Board Executive Officer may require modifications to the report.
 - iii) ~~Submit~~The Department shall submit any modifications to the report required by the Regional Water Board within 30 days of notification.
 - iv) ~~Implement~~The Department shall implement the revised BMPs and conduct any additional monitoring required according to the implementation schedule.
- d) Toxicity Identification Evaluations (TIEs)

Upon a determination that a discharge is causing or contributing to an exceedance of an applicable toxicity standard, a TIE may be required by the appropriate Regional Water Board Executive Officer on a site specific basis.
- e) Maintenance Facility Compliance Monitoring
 - i) District ~~NPDES coordinators and their~~ staff shall inspect all maintenance facilities at least twice annually. Follow up inspections shall be conducted when deficiencies are noted. The inspections are to identify areas contributing to a discharge of pollutants associated with maintenance facility activities, to determine if control practices to reduce pollutant loadings identified in the Facility Pollution Prevention Plans (FPPP) are adequate and properly implemented, and to determine whether additional control practices are needed. The District shall keep a record of inspections. The record of the inspections shall include the date of the inspection, the individual(s) who performed the inspection, a report of the

observations, recommendations for any corrective actions identified or needed, and a description of any corrective actions undertaken.

- ii) The Regional Water Board may require the Department to conduct additional site inspections, to submit reports and certifications, or to perform additional sampling and analysis to the extent authorized by the Water Code.
- iii) Records of all inspections, compliance certifications, and noncompliance reporting shall be retained for a period of at least three years. With the exception of noncompliance reporting, the Department is not required to submit these records unless requested.

4) *Reporting Requirements for Trash and Litter*

The Department shall report on the trash and litter removal activities that are currently underway or are initiated after adoption of this Order. Activities include, but are not limited to, storm drain maintenance, road sweeping, public education and the Adopt-A-Highway program. Reporting and assessment of these or future activities shall follow protocols established by the Department and shall include quantitative measurements of the volume or weight of the trash and litter removed. Results shall be submitted as part of the Annual Report in a summary format by District. Prior year's data shall be included to facilitate an analysis of trends.

d. Project Planning and Design

The Department shall describe in the SWMP how storm water management is incorporated into the project planning and design process, and how the procedures and methodologies used in the selection of Design and Construction BMPs will be used in Department projects. The Department shall implement the program specified in the SWMP, any documents incorporated into the SWMP by reference, and any additional requirements contained in this Order.

Department and Non-Department projects that are new development or redevelopment shall comply with the standard project planning and design requirements for new development and redevelopment specified below. These requirements shall apply to all new and redevelopment projects that have not completed the ~~design~~project initiation phase on the effective date of this Order.

1) *Project Planning and Design Requirements for New Development and Redevelopment*

a) Post-Construction Storm Water Treatment Controls

i) Projects Subject to Post-Construction Treatment Requirements

(1) Department Projects

The Department shall implement post construction treatment control BMPs for the following new development or redevelopment projects:

- (a) Projects that ~~disturb 10,000 square feet or more of soil area or that~~ create 5,000 square feet or more of new impervious surface.
- (b) All projects discharging directly to environmentally sensitive areas.
- (c) All projects located in watersheds subject to a final TMDL that assigns the Department a waste load allocation.
- (d) All projects discharging directly to 303(d) listed water bodies for which Department highways or facilities have been identified as causing or contributing to the impairment.

(2) Non-Department Projects

- (a) The Department shall exercise control or oversight over Non-Department projects through encroachment permits or other means.
- (b) Non-Department development or redevelopment projects shall be subject to the same post-construction treatment control requirements as Department projects.
- (c) For all Non-Department Projects that trigger post-construction treatment control requirements, the Department shall review and approve the design of post-construction treatment controls and BMPs prior to implementation.

(3) ~~(3)~~—Waiver:

Where a Regional Water Board Executive Officer finds that a project will have a minimal impact ~~to~~ on water quality, the Executive Officer may waive the treatment control requirements, or lessen the stringency of the requirements, for ~~that~~ a project. Waivers may not be granted for projects subject to treatment control requirements based on a waste load allocation assigned to the Department.

- ii) Numeric Sizing Criteria for Storm Water Treatment Control BMPs: Treatment control BMPs constructed for Department and Non-Department projects shall ~~infiltrate at least 90 percent of~~ be designed to infiltrate, harvest and re-use, or evapotranspire the storm water runoff volume from an 85th percentile 24-hour storm event ~~or meet at least one of the numeric sizing design criteria below~~. The Department shall use Low Impact Develop (LID) principles with the goal of mimicking pre-project hydrology. The following LID principles shall be incorporated to meet the runoff volume standard:

- (1) Conserve natural areas, to the extent feasible, including existing trees, stream buffer areas, vegetation and soils;
- (2) Minimize the impervious footprint of the project;
- (3) Minimize disturbances to natural drainages;
- (4) Design and construct pervious areas to effectively receive runoff from impervious areas, taking into consideration the pervious areas' soil conditions, slope and other pertinent factors;
- (5) Implement landscape and soil-based BMPs such as compost-amended soils, biofiltration strips, and bioretention;
- (6) Use climate-appropriate landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers; and
- (7) Design all landscapes to comply with the California Department of Water Resources Water Efficient Landscape Ordinance:

<http://www.water.ca.gov/wateruseefficiency/landscapeordinance/technical.cfm>

or, if applicable, any more stringent local water conservation ordinance.

In the event the entire runoff volume from an 85th percentile 24-hour storm event cannot be infiltrated, harvested and re-used, or evapotranspired, the excess volume may be treated by a flow-through treatment system. The release of the excess volume shall be designed for a maximum rate equal to the runoff flow produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area (Excess Volumetric Rate). Any BMP implemented to treat the excess volume shall be designed to treat the Excess Volumetric Rate.

The Department shall not exclude an effective storm water treatment control method or device from consideration solely because that method or device has not been approved by the Department. In addition, other BMPs (e.g. sand filters, infiltration basins, proprietary treatment and filter systems) may be used only after landscape and soil-based BMPs are determined to be infeasible.

~~(1) Volume Hydraulic Design Basis~~ iii) Source Control Design Principles

~~Treatment systems whose primary mode of action depends on volume shall be designed to treat storm water runoff equal to the 85th percentile 24-hour storm runoff event.~~

~~(2) Flow Hydraulic Design Basis~~

~~Treatment systems whose primary mode of action depends on flow capacity shall be sized to treat the flow runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area.~~

~~(3) Combination Flow and Volume Design Basis~~

~~Treatment systems that use a combination of flow and volume shall be sized to treat at least 80 percent of the total runoff volume, using local rainfall data.~~

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Project subject to post-construction treatment requirements shall:

- (1) Minimize storm water exposure to on-site pollutants through design features that may include covered outdoor wash areas, sanitary sewer connections for wash areas, wash area equipment, and accessories;
- (2) Implement proper design of covers and drains, and protections for outdoor material storage areas, repair and maintenance bays, and fueling areas; and
- (3) Implement proper design of trash storage areas to eliminate exposure.

iv) Scope of Design Criteria Applicability for Redevelopment Projects:

- (1) Where redevelopment results in an increase of less than 50% percent of the total impervious area of a previously existing development, the numeric sizing criteria apply only to the addition and not to the entire development.¹¹
- (2) Where redevelopment results in an increase of 50% ~~percent~~ or more of the total impervious area of a previously existing development, the numeric sizing criteria apply to the entire development.

iv) Alternative Compliance with Treatment Sizing Criteria:

If the Department demonstrates to the satisfaction of the Regional Water Board that all or any portion of on-site treatment for a project is infeasible on-site, the Department may satisfy outstanding treatment requirements by meeting one or more of the following requirements, in order of preference:

¹¹ If the redeveloped impervious area is less than 50% percent and cannot be hydraulically separated from the existing impervious area, the Department shall either provide treatment for existing **and** redeveloped areas, or identify off-site treatment opportunities equivalent to the redeveloped ~~or reconstructed~~ area.

- (1) Upon approval by the applicable Regional Water Board, installing Equivalent Offsite Treatment¹² at an offsite location in the same watershed and ensuring the provision of long-term maintenance of any applicable treatment measures; or
- (2) Upon approval by the applicable Regional Water Board, contributing Equivalent Funds¹³ to a Regional Project.¹⁴

Alternative compliance, achieved by installing Equivalent Offsite Treatment, must be achieved ~~before the~~ within one year of completion of the new development or redevelopment project and documented in the Annual Report. Alternative compliance achieved by contributing Equivalent Funds to a Regional Project must be achieved within three years of initiation of the new development or redevelopment project. Alternative compliance is not applicable to projects subject to treatment requirements based on a waste load allocation assigned to the Department.

~~v) **Vegetated Treatment Controls:**~~

~~For all new development or redevelopment projects, regardless of size, the Department shall give priority to vegetated treatment controls and other soil-based BMPs such as biofiltration strips and swales. Other BMPs (e.g. earthen basins and filters, infiltration basins, etc.) may be used only after soil-based BMPs and biofiltration strips and swales are determined to be infeasible.~~

vi) Projects Discharging to CWA § 303(d) listed waters:

For all new development or redevelopment projects discharging directly to CWA § 303(d) listed water bodies, regardless of size, post project discharge of pollutants shall not exceed pre-project levels for such listed pollutants.

b) Hydromodification Requirements

The Department shall ensure that all new development and redevelopment projects do not cause a decrease in lateral (bank) and/or vertical (channel bed) stability in receiving stream channels. The Department shall employ the risk-based approach detailed in this permit. The approach assists the Department

¹² Equivalent Offsite Treatment – Hydraulically-sized treatment of:

- An equal area of new and/or replaced impervious surface of similar land uses (e.g., similar amount of average daily traffic, similar parking use, etc.); or,
- An equivalent amount of pollutant loading as that projected for the project.

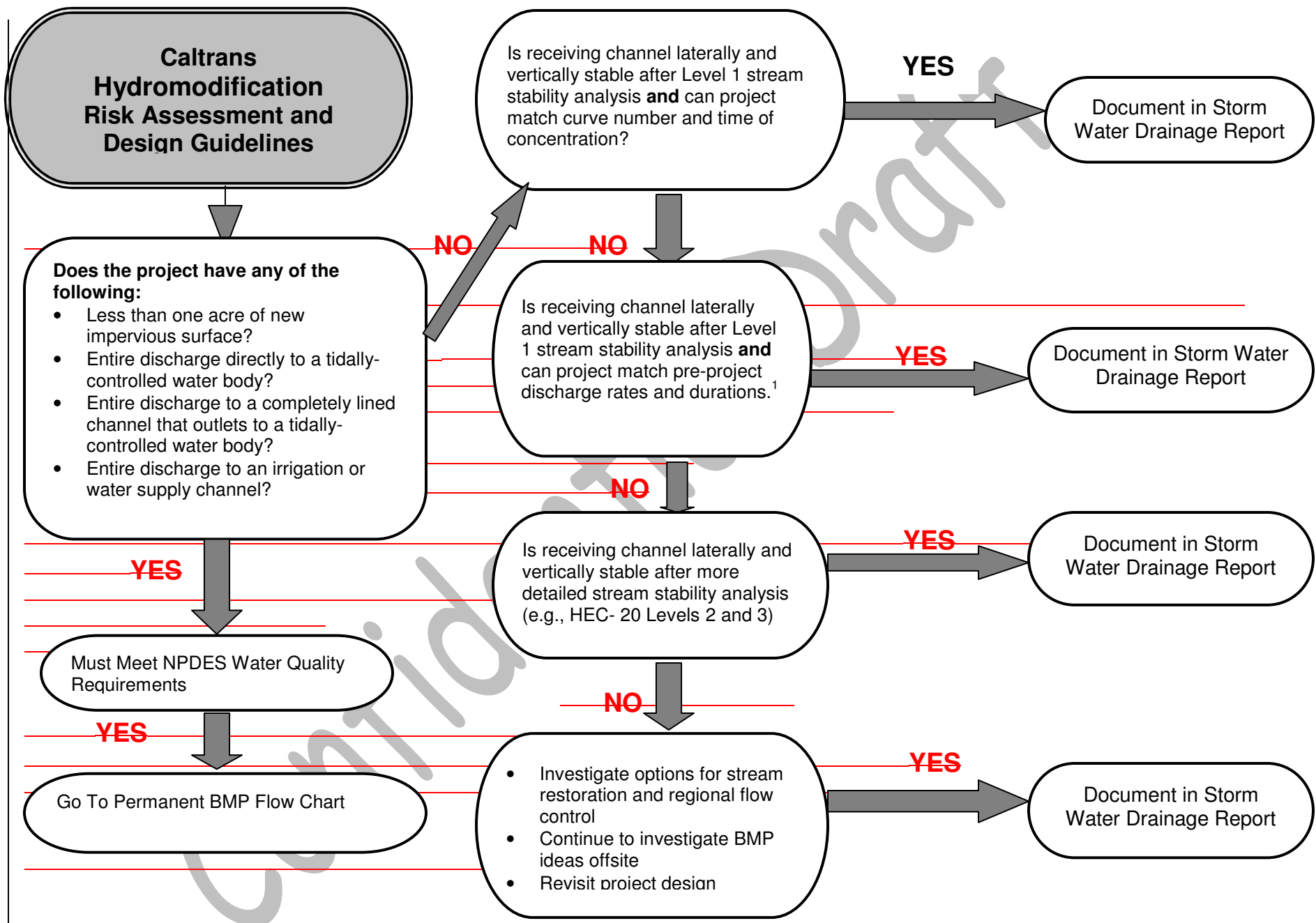
¹³ Equivalent Funds – Monetary amount necessary to provide:

1. Hydraulically-sized treatment of an equivalent amount of pollutant loading as that projected for the project; and
2. Operations and maintenance costs equivalent to what would have been incurred over the project lifetime for the foregone on-site treatment.

¹⁴ Regional Project – A regional or municipal storm water treatment facility in the project's watershed.

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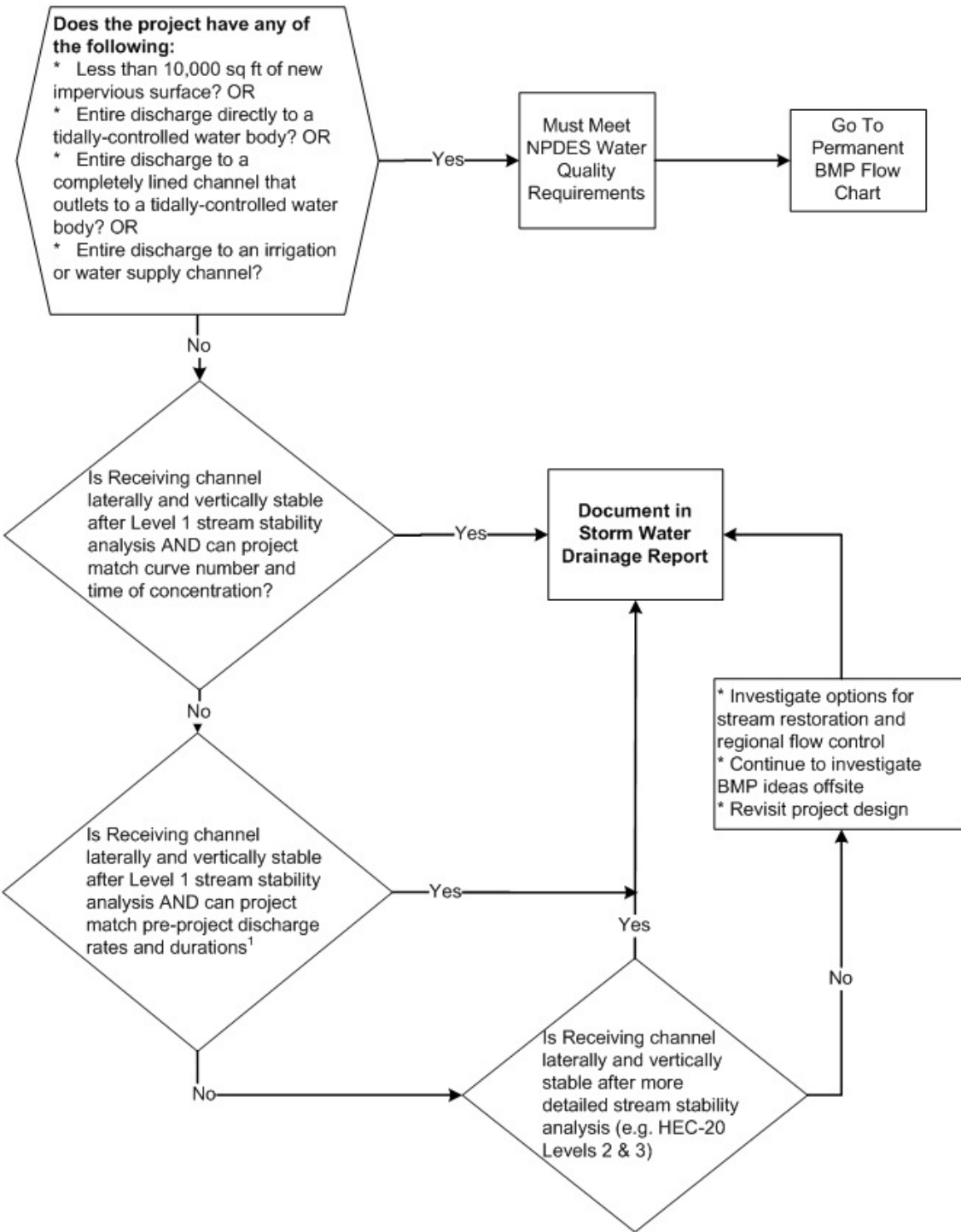
in assessing pre-project channel stability and implementing mitigation measures that are appropriate given a project's potential impact to stream stability. The approach is depicted in ~~the following illustration~~ [Figure 2](#) and described below.



[†]Flows cannot deviate more than 10 percent over more than 10 percent of the length of the curve corresponding to the range of flows to control.

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Figure 2. Hydromodification Risk Assessment and Design Guidelines



¹ Flows cannot deviate more than 10 percent over more than 10 percent of the length of the curve corresponding to the range of flows to control

- i) The following new and redevelopment projects are exempt from the hydromodification requirements:

- (1) Projects that add less than ~~one-acre~~ 10,000 square feet of new impervious surface.
- (2) Projects that discharge directly to a tidally-controlled water body.
- (3) Projects that discharge to a completely lined or armored channel that outlets to a tidally-controlled water body.
- (4) Projects that discharge to an irrigation or water supply channel.

Department projects that do not trigger the hydromodification requirements may be subject to the Post-Construction Treatment Requirements in Section E.2.d.1)a).

- ii) Projects subject to the hydromodification requirements must first conduct a Level 1 stream stability analysis within a representative channel reach to assess lateral and vertical stability. A representative reach is a length of stream channel that extends at least 10 channel widths upstream and downstream of a discharge point (e.g., pipe, culvert, or swale) and bridges (if the work is bridge-related). For example, a 20 foot-wide channel would require analyzing a 200 foot distance upstream and downstream of the discharge point or bridge. If sections of the channel within the 10 channel width distance are immediately upstream or downstream of steps, culverts, grade controls, tributary junctions, or other features and structures that significantly affect the shape and behavior of the channel, more than 10 channel widths should be analyzed. Guidance and worksheets used for the Level 1 stream stability analysis are in the Federal Highway Administration publication “*Assessing Stream Channel Stability at Bridges in Physiographic Regions*” (FHWA, 2006).
- iii) If the results of the Level 1 stream stability analysis indicate that the representative reach is laterally and vertically stable (i.e., a rating of excellent or good), the Department must demonstrate that they can match the pre-project runoff curve number and time of concentration.
- (iv) If the results of the Level 1 stream stability analysis indicate that the representative reach is laterally and vertically stable (i.e., a rating of excellent or good), but the Department cannot match the pre-project runoff curve number and time of concentration, the pre-project discharge rates and durations must be matched for the range of flows that is appropriate for a project’s geomorphic region. To be considered matched, flows cannot deviate more than 10 percent over more than 10 percent of the length of the curve corresponding to the range of flows to control.
- (v) If the Department cannot meet the requirement of (iv), it shall conduct a more detailed Level 2 (and, if warranted, Level 3) analysis. The Department shall follow the Level 2 and 3 analysis guidelines contained in HEC-20 (FHWA, 2001) or a suitable equivalent.

- (vi) If the results of the Level 2 and 3 analysis indicate that the representative reach will not be laterally and vertically stable, other options must be implemented, including, but not limited to, in-stream and floodplain enhancement/restoration, regional flow control, off-site BMPs, and, if necessary, project re-design.
- c) Stream Crossing Design Guidelines to Maintain Natural Stream Processes
The Department shall review and revise as necessary the guidance document “Fish Passage Design for Road Crossings” (Department, 2009). In reviewing and revising the guidance document, the Department shall refer to the latest stream crossing design criteria contained in the California Salmonid Stream Habitat Restoration Manual.¹⁵ The review shall be completed no later than one year after the effective date of this Order. The Department shall submit in the Year 2 Annual Report a report detailing the review of the guidance document. The ~~year~~Year 2 Annual Report shall also report on the implementation of the road crossing guidelines.

The following guidelines shall be followed in the design ~~and~~, construction, and maintenance of stream crossings:

- (i) Sizing and design of stream crossings (i.e., bridges, culverts, grade control, and fishways) shall be consistent with the requirements of the California Department of Fish and Game (2010) and National Marine Fisheries Service (NMFS, 2001) for reaches in use or those with a potential future use by migrating fish, reptiles or amphibians;
- (ii) Stream crossings shall be designed to allow the passage of woody material and other debris;
- (iii) Culverts shall maintain equilibrium stream slope based upon an analysis of the up- and downstream flow and sediment transport regime.;
- (iv) Natural channel materials at road crossings shall be maintained;
- (v) Stream crossings shall be designed, constructed and maintained to ~~maintain~~preserve equilibrium flow and sediment transport so that there is no long term aggradation or degradation of the channel bed and/or bank;
- (vi) A **Level 1 stream stability analysis** shall be conducted ~~every 2 years~~ at all perennial stream crossings, including culverts, where the stream ~~is used by, or has a potential future use by, migrating~~ the designated beneficial uses of fish, reptiles or amphibians, migration (MIGR), fish spawning (SPAWN), and freshwater habitat (COLD). At least 20 percent of the crossings shall be evaluated each year. The results of these analyses shall be submitted as part of the Annual Report ~~and shall be used to inform any necessary corrective actions.~~ Crossings impairing beneficial uses shall be prioritized for retrofit or remediation on a 10-year implementation schedule.

¹⁵ <http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp>

If it is infeasible to meet any of the guidelines specified above, the Department shall prepare written documentation justifying the determination of infeasibility. Documentation shall be provided to the Regional Water Board for approval.

~~d) Low Impact Development (LID)~~

~~The goal of LID is to reduce runoff and mimic a site's predevelopment hydrology by minimizing disturbed areas and impervious cover and then infiltrating, storing, detaining, evapotranspiring, and/or biotreating storm water runoff close to its source. LID employs principles such as preserving and recreating natural landscape features and minimizing imperviousness to create functional and appealing site drainage that treats storm water as a resource, rather than a waste product. LID treatment measures include harvesting and use, infiltration, evapotranspiration, or biotreatment. All new development and redevelopment projects shall integrate LID principles into project designs through:~~

~~i) Site Design Principles~~

- ~~(1) Conservation of natural areas, to the extent feasible, including existing trees, vegetation and soils;~~
- ~~(2) Minimization of the impervious footprint of the project;~~
- ~~(3) Minimization of disturbances to natural drainages;~~
- ~~(4) Design and construction of pervious areas to effectively receive runoff from impervious areas, taking into consideration the pervious areas' soil conditions, slope and other pertinent factors;~~
- ~~(5) Use of climate-appropriate landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers; and~~
- ~~(6) Irrigation systems that are designed and operated according to the methodology found in the California Department of Water Resources Water Efficient Landscape Ordinance:~~

~~<http://www.water.ca.gov/wateruseefficiency/landscapeordinance/technical.cfm>~~

~~or, if applicable, any more stringent local water conservation ordinance.~~

~~ii) Source Control Design Principles~~

- ~~(1) Minimization of storm water exposure to on-site pollutants through design features that may include covered outdoor wash areas, sanitary sewer connections for wash areas, wash area equipment, and accessories;~~

- ~~(2) Proper design of covers and drains, and protections for outdoor material storage areas, repair and maintenance bays, and fueling areas; and~~
- ~~(3) Proper design of trash storage areas to eliminate exposure.~~

~~iii) Storm Water Treatment and Infiltration Principles~~

~~In selecting storm water treatment and infiltration systems to meet the LID requirements of this Order, the Department shall give first priority to storm water treatment systems that reduce runoff, store storm water for beneficial use, and/or enhance infiltration to the extent that is practical and safe. Examples include soil quality improvement and biofiltration strips and swales. Basins, filters, and prefabricated/ proprietary storm water treatment systems shall only be considered where the higher priority alternatives are infeasible.~~

2) **DISTRICT WORKPLANS**

The Department shall submit **DISTRICT WORKPLANS** (workplans) for each District by October 1 of each year, as part of the Annual Report. The workplans will be forwarded to the appropriate Regional Water Board Executive Officer for acceptance. Workplans are deemed accepted after 60 days after receipt by the Regional Water Board unless rejected in writing. District staff shall meet with Regional Water Board staff on an annual basis prior to submittal of the ~~District Work Plans~~[workplans](#) to discuss alternatives and ensure that appropriate post construction controls are included in the project development process through review of the workplan and early consultation and coordination between District and Regional Water Board staff. Workplans shall conform with the requirements of applicable Regional [Water](#) Board Basin Plans and shall include:

- a) A description of all activities and projects, including maintenance projects, to be undertaken by the Districts. For all projects with soil disturbing activities, this shall include a description of the construction and post construction controls to be implemented;
- b) The area of new impervious surface and the percentage of new impervious surface to existing impervious surface for each project;
- c) The area of disturbed soil associated with each project or activity;
- d) A description of other permits needed from the Regional [Water](#) Boards for each project or activity;
- e) Potential and actual impacts of the discharge(s) from each project or activity;
- f) The proposed BMPs to be implemented in coordination with other MS4 permittees to comply with WLAs and LAs assigned to the Department for specific pollutants in specific watersheds or sub watersheds;
- g) The elements of the statewide monitoring program to be implemented in the District;
- h) Identification of high-risk areas (such as locations where spills or other releases may discharge directly to municipal or domestic water supply reservoirs or ground water percolation facilities);

- i) Spill containment, spill prevention and spill response and control measures for high-risk areas; and
- j) Proposed measures to be taken to meet Region-specific requirements included in Attachment V.

e. BMP Development & Implementation

In the SWMP, the Department shall include a description of how BMPs will be developed, constructed and maintained. The Department shall continue to evaluate its existing BMPs and investigate new BMPs through pilot studies. The Department shall submit updates to the **STORM WATER TREATMENT BMP TECHNOLOGY REPORT** and the **STORM WATER MONITORING AND BMP DEVELOPMENT STATUS REPORT** in the Annual Report.

1) Vector Control

- a) All storm water BMPs that retain storm water shall be designed, operated and maintained to minimize mosquito production, and to drain within 96 hours of the end of a rain event, unless designed to exclude vectors. BMPs shall be maintained at the frequency specified by the manufacturer. This limitation does not apply in the Lake Tahoe Basin and in other high-elevation regions of the Sierra Nevada above 5000 feet elevation with similar alpine climates. The Department shall operate and maintain all BMPs to prevent the propagation of vectors, including complying with applicable provisions of the California Health and Safety Code relating to vector control.
- b) The Department shall cooperate and coordinate with the California Department of Public Health (CDPH) and with local mosquito and vector control agencies on issues related to vector production in the Department's structural BMPs. The Department shall prepare and maintain an inventory of structural BMPs that retain water for more than 96 hours. The inventory need not include BMPs in the Lake Tahoe Basin or other regions of the Sierra Nevada above 5000 feet. The inventory shall be provided to CDPH in electronic format for distribution to local mosquito and vector control agencies. The inventory shall be provided in Year 2 of the permit and updated every two years.

2) *Storm Water Treatment BMPs*

- a) The Department shall inspect all newly installed storm water treatment BMPs within 45 days of installation to ensure they have been installed and constructed in accordance with approved plans. If approved plans have not been followed, the Department shall take appropriate remedial actions to bring the BMP or control into conformance with its approved design.
- b) The Department shall inspect all installed storm water treatment BMPs at least once every year, beginning one year after the adoption of this Order.
- c) The Department may drain storm water treatment BMPs to the MS4 if the pollutants in the discharge have been reduced to the MEP and do not cause or contribute to exceedances of water quality standards. Retained sediments

shall be disposed of properly, in compliance with all applicable local, State, and federal acts, laws, regulations, ordinances, and statutes.

d) The Department shall develop and utilize a watershed-based database to track and inventory treatment BMPs and treatment BMP maintenance within its jurisdiction. At a minimum, the database shall include:

- i) Name and location of BMP;
- ii) Watershed, Regional Water Board and District where project is located;
- iii) Size and capacity;
- iv) Treatment BMP type and description;
- v) Date of installation;
- vi) Maintenance certifications or verifications;
- vii) Inspection dates and findings;
- viii) Compliance status;
- ix) Corrective actions, if any; and
- x) Follow-up inspections to ensure compliance.

Electronic reports for each BMP inspected during the reporting period shall be submitted to each associated Regional Water Board in tabular form. A summary of the tracking system data shall be included in the Annual Report along with a report on maintenance activities for post construction BMPs. The tracking system database shall be made available to the State Water Board or any Regional Water Board upon request.

3) BMPs shall not constitute a hazard to wildlife.

4) *Biodegradable Materials.*

The Department shall utilize wildlife-friendly 100% biodegradable¹⁶ erosion control products wherever feasible. The Department shall not use or allow the use of permanent¹⁷ erosion control products at any site or facility that contain non-biodegradable (e.g., plastic or nylon) netting or materials. At any site where erosion control products containing non-biodegradable materials have been used for temporary site stabilization, the Department shall remove such materials when they are no longer needed. If the Department finds that erosion control netting or products have entrapped or harmed wildlife at any site or facility, the Department shall remove the netting or product and replace it with wildlife-friendly biodegradable products. The Department shall not use or allow the use of soil stabilization products that contain non-biodegradable materials within waters of the United States or waters of the State at any time.

¹⁶ For purposes of this Order, photodegradable synthetic products are not considered biodegradable.

¹⁷ For purposes of this Order, permanent erosion control products are considered to be products left in place for two years or more or after the project is completed.

5) *Conduct Pilot LID Retrofit Projects*

- a) ~~For The Department shall conduct a minimum of 36 pilot LID retrofit projects statewide. In Year 1, for~~ each Department District, the Department shall identify ~~at least two to~~ four locations associated with existing roadways and/or facilities that present opportunities to install on-site treatment and runoff control systems (e.g., infiltration basins, sand filters, treatment wetlands, vegetated swales) and shall assess the best LID design options for those locations. This effort shall identify potential locations draining a variety of land uses within the Department's right-of-way ~~and discuss technological and economical feasibility~~. Additional consideration shall be given to areas of elevated mercury and PCB concentrations, areas with lowered ground water tables, and areas with downstream hydromodification.
- b) ~~Based on first year reporting (c)(1) (below), select sites to perform pilot studies. Conduct~~In Year 2, initiate pilot studies in the ~~two to~~ four selected locations in each District. ~~Pilots~~ Pilot studies should be conducted such that they span treatment types, runoff control methods, and drainage characteristics.
- c) Reporting:
- i) In the Year 1 Annual Report, the Department shall report on candidate locations and types of LID features for retrofit at each location. ~~The report shall include assessment of at least four locations in each District; and~~ Progress reports shall be included in each subsequent Annual Report.
- ii) In the Year 4 Annual Report, report the status, results, and lessons learned from the ~~four~~ pilot studies ~~in each District, including their effectiveness and technical and economic feasibility~~. The Year 4 Annual Report should also include a plan for implementing LID features on an expanded basis throughout each District during the next Permit term.

f. Construction

- 1) *Compliance with the Statewide Construction Storm Water General Permit (CGP) and Lake Tahoe Construction General Permit (TCGP)*

Construction activities are not covered under this MS4 Permit. The Department shall electronically file Permit Registration Documents (PRD) for coverage under the CGP or TCGP for all projects subject to the CGP or TCGP.

- 2) *Construction Activities not Requiring Coverage Under the Construction General Permit*

For construction activities that are not subject to the Construction General Permit, the Department shall implement BMPs to reduce the discharge of pollutants to the MEP in storm water discharges associated with land disturbance activities including clearing, grading and excavation activities that result in the disturbance of less than one acre of total land area. The Department shall also implement

BMPs to reduce the discharge of pollutants to the MEP for construction and maintenance activities that do not involve land disturbance such as roadway and parking lot repaving and resurfacing. The Department must comply with any region-specific waste discharge requirements, including any requirements applicable to activities involving less than one acre land disturbance.

3) *Construction Projects Involving Lead Contaminated Soils*

The Department has applied for and received variances from the California Department of Toxic Substances Control (DTSC) for the reuse of some soils that contain lead. For construction projects that have received a DTSC variance, the Department shall notify the appropriate Regional Water Board in writing 30 days prior to advertisement for bids to allow a determination by the Regional Water Board of the need for development of Waste Discharge Requirements (WDRs).

4) *Contractor Compliance*

The Department shall require its project contractors to comply with this Order and with all applicable requirements of the CGP.

5) *Construction Non-Compliance Reporting*

Incidents of non-compliance with the CGP shall be reported pursuant to the provisions of the CGP. The Department shall provide in the Annual Report a summary of all construction project non-compliance (Section E.2.c.3)b).

g. Compliance with Statewide Industrial Storm Water General Permit (IGP)

Industrial activities are not covered under this MS4 permit. The Department shall electronically file PRDs for coverage under the IGP for all facilities subject to coverage under the IGP. The categories of industrial facilities are provided in Attachment 1 of the Industrial General Permit (NPDES Permit No. CAS0000001; the current Order No. 97-03-DWQ). The Department shall require its industrial facility contractors to comply with all requirements of the IGP. The discharge of pollutants from facilities not covered by the Industrial General Permit will be reduced ~~controlled~~ to the MEP through the appropriate implementation of BMPs.

h. Maintenance Program Activities

1) *Implement SWMP Requirements*

The Department shall implement the program specified in the SWMP to reduce or eliminate pollutants in storm water discharges from Department maintenance facilities and maintenance activities. The Department shall also implement any additional requirements contained in this Order.

2) A **FACILITY POLLUTION PREVENTION PLAN (FPPP)** describes the activities conducted at a facility and the BMPs to be implemented to reduce or eliminate the discharge of pollutants in storm water runoff from the facility.

The Department shall prepare, revise and/or update the FPPPs for all maintenance facilities by ~~the end~~October 1 of the first year. Each facility shall be evaluated separately and assigned appropriate site specific BMPs. The FPPP shall describe the activities conducted at the facility and the BMPs to be implemented to reduce or eliminate the discharge of pollutants in storm water runoff from the facility. The FPPP shall describe the inspection program used to ensure that maintenance BMPs are implemented and maintained. The Department shall identify in each Annual Report the status of the FPPP for each Maintenance Facility by District and Region, including the date of the last update or revision and the nature of any revisions.

The Department shall evaluate all non-maintenance Facilities for water quality problems. If the Department identifies a water quality problem at a non-maintenance facility, it shall prepare an FPPP for that facility. If Regional Water Board staff determines that a non-maintenance facility may discharge pollutants to the storm water drainage system or directly to surface waters, the Department shall prepare an FPPP for that facility.

Regional Water Board staff has the authority to require the submittal of an FPPP at any time, to require changes to a FPPP, and to require changes in the implementation of the Provisions of a FPPP.

3) *Highway Maintenance Activities*

- a) The Department shall develop and implement runoff management programs and systems for existing roads, highways, and bridges to reduce runoff pollutant concentrations and volumes entering surface waters. The Department shall:
 - i) Identify priority and watershed pollutant reduction opportunities (e.g., improvements to existing urban runoff control structures). Priority shall be given to sites in sensitive watersheds or where there is an existing or potential threat to water quality;
 - ii) Establish schedules for implementing appropriate controls; and
 - iii) Identify road segments with slopes that are prone to erosion and sediment discharge and stabilize these slopes to control the discharge of pollutants to the MEP. An inventory of vulnerable road segments shall be maintained in the District Work Plans. Stabilization activities shall be reported in the Annual Report. This section does not apply to landslides and other forms of mass wasting which are covered under section E.2.h.3)d).

- b) *Vegetation Control*

The Department shall control its handling and application of chemicals including pesticides, herbicides, and fertilizers to reduce or eliminate the discharge of pollutants to the MEP. At a minimum, the Department shall:

 - i) Apply herbicides and pesticides in compliance with federal, state and local use regulations and product label directions.

- (1) Violations of regulations shall be reported to the County Agricultural Commissioners within 10 business days.
 - (2) The Annual Report shall include a summary of violations and follow-up actions to correct them.
- ii) Minimize the application of chemicals by using ~~alternative methods of~~integrated pest management and integrated vegetation management. For example, the Department may ~~include native species to~~ reduce the need for application of fertilizers and herbicides; ~~reduce the application of herbicides~~ by using native species and using mechanical and biological methods for control of exotic species, ~~and reduce the application of pesticides by using symbiotic foliage to promote a stable predator/prey relationship.~~
 - iii) ~~Do not spray within 48 hours of a forecast rain event having a 30 percent probability as predicted by the National Weather Service.~~
 - iv) Prior to chemical applications, assess site-specific and application-specific conditions to prevent discharge. The assessment shall include the following variables:
 - (1) Expected precipitation events, especially those with the potential for high intensity;
 - (2) Proximity to water bodies;
 - (3) Intrinsic mobility of the chemical. ~~To consider intrinsic mobility, conduct a soil profile analysis and identify the herbicide sorption coefficient to determine the affinity for adsorption;~~
 - (4) Application method, including any tendency for aerial dispersion;
 - (5) Fate and transport of the chemical after application;
 - (6) Effects of using combinations of chemicals; and
 - (7) Other conditions as identified by the applicator.
 - iv) Apply nutrients at rates and by means necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water.
 - vi) Ensure that all employees or contractors who, within the scope of their duties, prescribe or apply herbicides, pesticides, or fertilizers (including over-the-counter products) are appropriately trained and licensed to comply with these provisions.
 - vii) Propose SWMP provisions as appropriate.
 - viii) Include the following items in the Annual Report:
 - (1) A summary of the Department's chemical use. Report the quantity of chemicals used during the previous reporting period by name and type of chemical, by District, and by month.
 - (2) An assessment of long-term trends in herbicide usage. Include a table presenting yearly District herbicide totals by chemical type;

- (3) A comparison of the statewide herbicide use with the Department's herbicide reduction goals;
- (4) An analysis of the effectiveness of implementation of vegetation control BMPs. Improvements to BMP implementation either being used or proposed for usage shall be discussed. If no improvements are proposed, explain why;
- (5) Justification for any increases in use of herbicides, pesticides, and fertilizers;
- (6) A report on the number and percentage of employees who apply pesticides and have been trained and licensed in the Department's Pesticide and Fertilizer Pollution Control Program policies; and
- (7) Training materials, if requested by the State Water Board.

c) Storm Water Drainage System Facilities Maintenance

- i) ~~i)~~ The Department shall inspect all drainage inlets and catch basins a minimum of once per year and shall remove all waste and debris from drainage inlets and catch basins when they have reached 2550 percent capacity. Total weight or volume of waste and debris removed from drainage inlets shall be reported by District in the Annual Report.
- ii) Waste and debris, including sweeper and vacuum truck waste, shall be managed in accordance with all applicable laws and regulations, including the ~~California~~ Code ~~of Regulations (CCR)~~ Regs. Title 27, Division 2, Subdivision 1.
- iii) Drainage inlets that contain significant amounts of waste and debris shall be scheduled for an illicit discharge and illegal connection investigation and considered for an enhanced BMP program to identify the sources of the material and reduce the discharge of waste.
- iv) The Department shall develop a **Waste Management Plan** that includes a comprehensive inventory of waste storage, transfer, and disposal sites; the source(s) of waste and the physical and chemical characterization of the waste retained at each site; estimated annual volumes of material and existing or planned waste management practices for each waste and facility type. The Waste Management Plan shall be submitted for State Water Board review and approval at the end of Year 1.

d) Landslide Management Activities

The Department shall develop a **Landslide Management Plan** that includes BMPs for Department construction and maintenance work landslide-related activities (e.g., prevention, containment, clean-up). The *Landslide Management Plan* shall ~~also address all forms of mass wasting such as slumps, mud flows, and rockfalls, and shall~~ include BMPs specifically for burn site management activities. The Department shall submit the *Landslide Management Plan* with the Year 1 Annual Report and implement the *Landslide Management Plan* for the remainder of the Permit term.

4) *Surveillance Activities*

a) Spill Response

- i) The Department will follow the applicable ~~Office of Emergency Services (OES)~~ Management Agency (EMA) procedures and timelines specified in Water Code ~~sections~~ §§ 13271 and 13272 for reporting spills.
- ii) For spills not covered by ~~OES~~ EMA procedures, the Department shall provide the following notification to local agencies as applicable: if the spill occurs within the boundaries of another MS4 regulated by an MS4 permit or the spill may flow into another such MS4, the Department shall notify the owner/operator of the MS4 and the principal permittee as soon as possible, but no later than 24 hours after onset of or threat of a discharge which can cause adverse impacts to the storm sewer system or receiving waters.
- iii) For spills not covered by OES procedures, the Department shall also provide verbal notification to the appropriate Regional Water Board as soon as possible, but in no case later than 24 hours after any spill with the potential to impact receiving waters. The Department shall submit a completed **INCIDENT REPORT FORM** within 5 days of any spill. The Department shall perform follow-up monitoring and analysis of significant spills to ensure that threats to receiving waters have been eliminated as determined by the local Regional Water Board.

b) Illegal Connection/Illicit Discharge (IC/ID) Detection and Elimination

- i) The Department shall implement the BMPs and other requirements of the SWMP and this Order to reduce and eliminate illegal connections and illicit discharges.
- ii) The Department shall also implement the following additional requirements:
 - (1) The Department shall develop a **STORM DRAIN SYSTEM SURVEY PLAN** to survey all Department owned MS4s for IC/IDs. The plan shall include:
 - (a) A description of a proposed program to identify IC/IDs to the Department's MS4, and respond to public complaints on IC/IDs.
 - (b) Inspection procedures and methods for detecting and preventing IC/IDs.
 - (c) A timetable for completing the proposed program; and
 - (d) A program for ongoing system inspections and reporting of IC/IDs. Within 6 months of the effective date of this Order, the Department shall submit the Storm Drain System Survey Plan to the State Water Board Executive Director for approval.
 - (2) The Department shall develop an **ILLEGAL DUMPING RESPONSE PLAN** that includes, at a minimum, the following:

- (a) A detailed proposal for educating the public to raise awareness and change behaviors to prevent illegal dumping and to encourage the public to contact the appropriate local authorities if they witness illegal dumping;
- (b) A reporting, response, and follow-up mechanism; and
- (c) Plans for illegal dumping cleanup.

Within 6 months of the effective date of this Order, the Department shall submit the Illegal Dumping Response Plan to the State Water Board Executive Director for approval.

c) **Department Activities Outside the Department's Right-of-Way**

The Department shall inspect and ensure that appropriate pollution prevention control measures are implemented at facilities and operations outside the Department's right-of-way when these facilities are active for the primary purpose of accommodating Departmental activities. Facilities may include concrete or asphalt batch plants, staging areas, concrete slurry processing or other material recycling operations, equipment and material storage yards, material borrow areas, and access roads.

d) [Agricultural Irrigation Return Flows](#)

[As part of its routine maintenance operations, the Department shall conduct surveillance of agricultural irrigation return flows entering the MS4. Irrigation return flows that are not regulated by WDRs, conditional waivers of WDRs, or prohibitions of discharge shall be reported to the Regional Water Board.](#)

5) *Operation and Maintenance of Post-Construction BMPs*

The Department shall prepare and implement long-term operation and maintenance plans for every site subject to the post-construction storm water treatment design standards. The plans must ensure the following: a) Long-term structural LID BMPs are maintained as necessary to ensure they continue to work effectively; b) Proprietary devices are maintained according to the manufacturer's directions; and c) Post-construction BMPs are replaced if they lose their effectiveness.

i. [Non-Departmental Activities](#)

The Department shall summarize its control over all non-departmental (third party) activities performed on Department Right-of-Way (ROW) in the SWMP. The summary shall describe how the Department shall ensure compliance with this Order in all non-departmental activities.

The Department shall not grant or renew encroachment permits or easements benefitting any third party required to obtain coverage under the Statewide Construction and/or Industrial Storm Water General Permits unless the party has obtained coverage. Once the third party obtains coverage, the Department shall report the applicable Waste Discharge Identification (WDID) to the Regional Water

Board. In all leases, rental agreements, and all other contracts with third parties conducting activities within the ROW, the Department shall require the third party to comply with applicable requirements of the Construction General Permit, the Industrial General Permit, and this Order.

j. Non-Storm Water Activities/ Discharges

1) The Department shall describe the management activities for all non-storm water discharges in the SWMP. Management activities shall include the procedures for prohibiting illicit discharges and illegal connections, and procedures for spill response, cleanup, reporting, and follow-up.

2) Agricultural Return Flows

The Department shall provide reasonable support to the monitoring activities of agricultural dischargers whose runoff enters the MS4. Reasonable support includes facilitating monitoring activities, providing necessary access to monitoring sites, and cooperating with monitoring efforts as needed. It does not include actively conducting monitoring or providing funding.

3) See Section B of this Order for the complete list of conditionally exempt non-storm water discharges and compliance requirements.

k. Training

1) The Department shall implement a training program for Department employees and construction contractors. The training program shall be described in the SWMP.

2) The training program shall cover:

- a) Causes and effects of storm water pollution;
- b) Regulatory requirements;
- c) Best Management Practices;
- d) Penalties for non-compliance with this Order; and
- e) Lessons learned.

3) The Department shall provide a review and assessment of all training activities in the Annual Report.

l. Public Education and Outreach

The Department shall implement a Statewide Public Education Program and describe it in the SWMP. The Department shall continue to seek opportunities to participate in public outreach and education activities with other MS4 permittees.

1) The Statewide Public Education Program shall include the following elements:

- a) Research: A plan for conducting research on public behavior that affects the quality of the Department's runoff. The information gathered will form the foundation for all the public education conducted.
- b) Education: Education of the general public to modify behavior and communicate with commercial and industrial entities whose actions may add pollutants to the Department's storm water.
- c) Mass Media Advertising: Continue the advertising campaign as a focal point of the public education strategy. The campaign should focus on the behaviors of concern and should be designed to motivate the public to change those behaviors. The public education campaign should be revised and updated according to the results of the research. The Department may cooperate with other organizations to implement the public education campaign.
- ~~d) Community Based Social Marketing (CBSM): Utilize CBSM strategies as part of the research and education program elements to target audiences, change behaviors, and reduce the barriers to changing behavior.~~

- 2) A **PUBLIC EDUCATION PROGRAM PROGRESS REPORT** shall be submitted as part of the Annual Report.

m. Program Evaluation

- 1) The Department shall implement the program specified in the SWMP and any additional requirements contained in this Order.
- 2) *Field Activities* **SELF-AUDIT**
The Department will perform compliance evaluations for field activities including construction, highway maintenance, facility maintenance, and selected targeted program components. The results of the field compliance evaluations for each fiscal year will be provided in the Annual Report.
- 3) **OVERALL PROGRAM EFFECTIVENESS EVALUATION:**
Each year, the Department shall submit an **OVERALL PROGRAM EFFECTIVENESS EVALUATION** together with the Annual Report. The Department shall increase the scope of the evaluation each year in response to the environmental monitoring data it collects. The effectiveness evaluation shall be comparable to that outlined in CASQA's *Municipal Stormwater Program Effectiveness Assessment Guidance*¹⁸ and shall emphasize assessment of BMPs specifically targeting primary pollutants of concern. The effectiveness evaluation shall include, but is not limited to, the following components:
 - a) Assessment of program effectiveness in achieving permit requirements and measurable objectives.
 - b) Assessment of program effectiveness in protecting and restoring water quality and beneficial uses.

¹⁸ <https://www.casqa.org/store/products/tabid/154/p-7-effectiveness-assessment-guide.aspx>

- c) Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions.
 - d) Identification of how the Department will propose revisions to the SWMP to optimize BMP effectiveness when effectiveness assessments identify BMPs or programs that are ineffective or need improvement.
- n. Measurable Objectives
The Department shall implement the program specified in the SWMP and any additional requirements contained in this Order. In the SWMP, the Department shall identify measurable objectives to meet the SWMP's goals, proposed activities and tasks to meet the objectives, and a time schedule for the proposed activities and tasks. In the Annual Report, the Department shall report on its progress in meeting the measurable objectives.
- o. References
The Department shall provide references for all information, documents, and studies used in the development of the SWMP.

3. Annual Report

The Department shall submit 13 copies of an **ANNUAL REPORT** to the State Water Board Executive Director by October 1 of each year. Electronic copies shall also be submitted on compact disk in the portable document format (PDF). [The reporting period for the Annual Report shall be July 1 through June 30.](#) The Annual Report shall contain all information and submittals required by this Order including, but not limited to:

- a. A District-by-District description of storm water pollution control activities conducted during the reporting period;
- b. A progress report on meeting the SWMP's measurable objectives;
- c. An Overall Program Effectiveness Evaluation as described in section E.2.m.3);
- d. Proposed revisions to the SWMP, including revisions to existing BMPs, along with corresponding justifications;
- e. A report on post-construction BMP maintenance activities;
- f. A list of non-approved BMPs that were implemented in each District during the reporting period including the type of BMP, reason for use, physical location, and description of any monitoring;
- g. An evaluation of project planning and design activities conducted during the year;
- h. A summary of non-compliance with this Order and the SWMP as specified in Section E.2.c.3(b). The summary shall include an assessment of the effectiveness of any Department enforcement and penalties, and as appropriate, proposed solutions to improve compliance;
- i. An evaluation of the Monitoring Results Report, including a summary of the monitoring results;
- j. Proposed revisions to the Department's Vegetation Control Program;

- k. Proposals for monitoring and control of non-storm water discharges that are found to be sources of pollutants as described in Section B. of this Order;
- l. District Workplans; and
- m. Measures implemented to meet region-specific requirements.

A partial summary of reporting requirements is contained in Attachment III of this Order.

4. TMDL Compliance Requirements

a. Implementation

The Department shall comply with all applicable TMDLs approved pursuant to 40 C.F.R. § 130.7 by the date this Order is adopted for which the Department has been assigned a ~~Waste Load Allocation (WLA)~~, where roads in general have been assigned a ~~load allocation LA~~, or where the Department is specifically assigned actions to implement the TMDL. ~~Compliance may include, but is not limited to, implementation of BMPs and other measures identified in the respective TMDL implementation plan.~~

~~Effluent~~Waste Load Allocations, Load Allocations, effluent limitations, and implementation requirements are specified in the adopted and approved Regional Water Board Basin Plans ~~and authorizing resolutions~~ which are incorporated herein by reference as enforceable parts of this Order. Applicable Basin Plan Amendments and resolutions are identified in Attachment IV. Attachment IV also contains a ~~partial~~ list of deliverables and action items with their associated due dates; however, the Department shall comply with all applicable TMDL-related requirements even if not included in Attachment IV. In some cases, due dates are given in Attachment IV that fall outside the term of this Order. Compliance dates that have already passed are enforceable ~~on~~ as of the effective date of this Order. Compliance dates that exceed the term of this Order are included for reference, and become enforceable in the event that this Order is administratively extended.

The State Water Board or its Executive Director may revise this Order to incorporate any modifications or revisions to the TMDLs in Attachment IV to include more specific TMDL permitting requirements as described in Finding 36, or to incorporate any new TMDLs adopted during the term of this Order that assign a WLA to the Department or that ~~identifies~~identify the Department as a responsible party in the TMDL implementation plan. In revising Attachment IV, the State Water Board's Executive Director will follow the same public process provided for SWMP revisions.

b. ~~Status Review Report~~

~~The Department shall prepare a **TMDL STATUS REVIEW REPORT** to be submitted with each Annual Report. The TMDL Status Review Report shall include the following information for all TMDLs approved by USEPA that assign a WLA to the Department, where roads have been assigned a load allocation, or that designates the Department as a responsible party:~~

- ~~1) An update of the Department Statewide TMDLs table;~~
- ~~2) The name of each TMDL approved during the past year;~~
- ~~3) An analysis of the effectiveness of existing BMPs and activities in meeting existing TMDLs;~~
- ~~4) A summary update of any monitoring needed to demonstrate compliance with an approved TMDL;~~
- ~~5) A summary of measures implemented to comply with existing TMDLs; and~~
- ~~6) A summary of measures and a time schedule to meet existing TMDLs.~~

~~c. Compliance~~ Supplemental TMDL Implementation Plan

The Department shall ~~prepare a **TMDL COMPLIANCE PLAN** for each TMDL listed in Attachment IV. The Compliance Plan shall include all implementation actions necessary to comply, in consultation with the TMDL, including monitoring and reporting. The Compliance Plan shall be submitted to the Regional Water Board Executive Officer for approval by year 2, unless indicated otherwise in the approved TMDL. This requirement does not apply with regard to those, prepare a **SUPPLEMENTAL TMDL IMPLEMENTATION PLAN** for all applicable TMDLs listed in Attachment IV adopted by the San Francisco Bay. The Plan shall propose the clear deliverables and action items to be met by the Department in implementing the TMDLs identified in Attachment IV. The Regional Water Quality Control Board for which Boards may limit the information to be included in the Supplemental TMDL Implementation Plan or waive the requirement for a Supplemental TMDL Implementation Plan for specific TMDLs where the specific TMDL implementation requirements are already fully specified and incorporated into this Order, in Attachment IV. The Supplemental TMDL Implementation Plan shall be formatted consistent with Attachment IV and shall be accompanied by supporting documentation that explains how the Plan implements each TMDL, how the Plan is consistent with the assumptions and requirements of any applicable WLA, and, where a BMP-based approach to permit limitations is selected, how the BMPs will be sufficient to implement applicable WLAs. The Supplemental TMDL Implementation Plan shall be submitted to the State Water Board for approval by the end of Year 2, unless indicated otherwise in the approved TMDL.~~

In the case that this Order is reopened under provision E.10.c. for incorporation of specific TMDL ~~implementation-related permit~~ requirements for an adopted TMDL, prior to ~~year~~ Year 2 or the relevant time period in the approved TMDL, the Department will comply with the incorporated requirements, in lieu of ~~submission of a TMDL Compliance Plan~~ submitting a Supplemental TMDL Implementation Plan for that TMDL. The Department is not required to prepare a Supplemental TMDL Implementation Plan for the TMDLs in Attachment IV adopted by the San Francisco Bay Regional Water Quality Control Board for which specific TMDL implementation requirements are already specified and incorporated into this Order.

c. Status Review Report

The Department shall prepare a **TMDL STATUS REVIEW REPORT** to be submitted with each Annual Report. The TMDL Status Review Report shall include the

following information for all TMDLs approved by USEPA that assign a WLA to the Department, where roads in general have been assigned a LA, or where the Department is assigned actions to implement the TMDL:

- 1) An analysis of the effectiveness of existing BMPs and activities in meeting existing TMDLs;
- 2) A summary update of monitoring activities for each TMDL and any monitoring needed to demonstrate compliance with an approved TMDL;
- 3) A summary of measures implemented to comply with existing TMDLs;
- 4) A summary of measures and a time schedule to meet existing TMDLs;
- 5) An update of the Department Statewide TMDLs table;
- 6) A summary of TMDLs adopted during the past year where the Department is assigned a WLA, roads in general are assigned a LA, or the Department is identified as a responsible party in the implementation plan.

5. Region Specific Requirements

- a. The Department shall implement the region-specific requirements specified in the approved SWMP and this Order.
- b. In the SWMP, the Department shall describe how individual Districts will address region-specific requirements in each Regional Water Board.
- c. Region specific requirements are specified in Attachment V of this Order.

6. Regional Water Board Authorities

- a. Following adoption of this Order, the Regional Water Boards shall enforce the requirements of this Order. Enforcement may include, but is not limited to, reviewing FPPPs, reviewing workplans and monitoring reports, conducting compliance inspections, conducting monitoring, reviewing Annual Reports and other information, and issuing enforcement orders.
- b. Regional Water Boards may require submittal of FPPPs.
- c. Regional Water Boards may require retention of records for more than three years.
- d. To the extent authorized by the Water Code, Regional Water Boards may impose additional monitoring and reporting requirements and may provide guidance on monitoring plan implementation (Water Code § 13383).
- e. Regional Water Board staff may inspect the Department's facilities, roads, highways, bridges, and construction sites.
- f. Regional Water Boards may issue other individual storm water NPDES permits to the Department, particularly for discharges beyond the scope of this Order.

7. 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) and local municipalities to prohibit, restrict, or control storm water discharges and conditionally exempt non-storm water discharges to storm drain systems or other watercourses within their jurisdictions as allowed by State and federal law.

8. Standard Provisions

The Department shall comply with the Standard Provisions (Attachment VI) and any amendments thereto.

9. Permit Compliance and Rescission of Previous Waste Discharge Requirements

This Order shall serve and become effective as an NPDES permit and the Department shall comply with all its requirements 50 days after adoption by the State Water Board. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 99-06-DWQ, except for compliance purposes for violations occurring before the effective date of this Order.

10. Permit Re-Opener

The State Board may reopen and modify this Order at any time prior to its expiration under any of the following circumstances:

- a. Present or future investigations demonstrate that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses.
- b. New or revised Water Quality Objectives come into effect, or any new TMDL is adopted or revised that assigns a WLA to the Department or that identifies the Department as a responsible party in the TMDL implementation plan. In such cases, effluent limitations and other requirements in this Order may be modified as necessary to reflect the new TMDLs or the new or revised Water Quality Objectives;
- c. Specific TMDL implementation requirements for adopted TMDLs are developed by a Regional Water Board for incorporation into this Order; or
- d. The Board grants the Department an exception to the Ocean Plan's prohibition of discharges into an Area of Special Biological Significance.

11. Order Expiration and Reapplication

- a. This Order expires on xxxxx.

- b. If a new order is not adopted by xxxx, then the Department shall continue to implement the requirements of this Order until a new one is adopted.
- c. In accordance with Title 23, Division 3, Chapter ~~3~~, ~~Subchapter~~ 9 of the California ~~Administrative~~ Code of Regulations, the Department shall file a report of waste discharge no later than 180 days before the expiration date of this Order as application for reissuance of this permit and waste discharge requirements. The application shall be accompanied by a SWMP, and a summary of all available water quality data for the discharge and receiving waters, including conventional pollutant data from at least the most recent three years, and toxic pollutant data from at least the most recent five years, in the discharge and receiving water. Additionally, the Discharger shall include the final results of any studies that may have a bearing on the limits and requirements of the next permit.

CERTIFICATION

The undersigned, ~~Administrative Assistant~~Clerk to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on xxxxx, 2011.