STATEWIDE STORM WATER MANAGEMENT PLAN

CTSW-RT-12-286.19.1

California Department of Transportation
Division of Environmental Analysis
1120 N Street
Sacramento, California 95814
May 2003
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### Executive Summary

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EXECUTIVE SUMMARY

ES.1 OVERVIEW OF STORM WATER MANAGEMENT PLAN

This Statewide Storm Water Management Plan (SWMP) March 2011 Revision describes a program to reduce the discharge of pollutants associated with the storm water drainage systems that serve highways and highway-related properties, facilities and activities. It identifies how the California Department of Transportation (Department) will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) permit (Order No. 99-06-DWQ) issued by the California State Water Resources Control Board (SWRCB) on July 15, 1999. In addition, it incorporates provisions to address the October 26, 2010 USEPA Order for Compliance III.B Storm Water Management Plan Revisions.

The Permit requires that the previous edition of the Statewide SWMP be revised to include or describe procedures for implementing the requirements stated in several provisions of the Permit. This Statewide SWMP has been revised to show compliance with this requirement, although the format employed differs somewhat from the specific chapter designations outlined in the Permit.

This Statewide SWMP addresses the primary program elements of all the Department’s activities, including:

- The Project Delivery Storm Water Management Program, which includes the Design Storm Water Management Program and the Construction Storm Water Management Program;
- The Maintenance Storm Water Management Program; and
- The Training and Public Education Program.

This Statewide SWMP also addresses assignment of responsibilities for implementing storm water management practices as well as monitoring (Monitoring and Research Program), program evaluation, and reporting activities.

ES.2 PROGRAM MANAGEMENT

Section 2, Program Management, addresses the organization and responsibilities for overall Permit compliance and storm water management program implementation within the Department. This section also identifies how the Department will coordinate storm water management with municipalities and Regional Water Quality Control Boards (RWQCBs) and the legal authority necessary to implement the Statewide SWMP. The Department’s functions are divided between Headquarters and its 12 Districts. The Department uses a matrix organization with two lines of authority to coordinate Permit and Statewide SWMP compliance activities: traditional line management and functional program management. Traditional line management consists of the 12 District Directors and the functional Deputy District Directors (or Regional Managers) within each District (i.e., Planning, Design, Right of Way, Traffic Operations, Construction and Maintenance). Functional program management consists of the Director, the Deputy Directors, the Headquarters Division Chiefs (i.e., Environmental, Design,
Construction and Maintenance), and their respective functional counterparts in the Districts (e.g., the functional Deputy District Director [or Regional Manager]).

Implementation of the Statewide SWMP is initiated by directives from Headquarters. These directives are developed and communicated through both line management and functional program management as follows:

- **Director**: General directives issued by the Director are communicated to the Deputy Directors and to the District Directors.

- **Headquarters Functional Programs**: The Headquarters functional Divisions provide focused technical guidance, directives and monitoring to the District functional Divisions.

In this way, the functional Divisions in the Districts receive guidance both from line management and from the Headquarters functional Division management. The Headquarters functional Divisions have the responsibility for adopting the policies with respect to storm water control that are subsequently implemented by the corresponding District programs.

The Department has adequate legal authority as required by the federal storm water regulations to manage storm water discharges occurring from Department-owned and maintained facilities and properties located within highway rights-of-way. The Department also has legal authority to manage construction activities within the Department’s rights-of-way and to disconnect or prohibit illicit connections within its rights-of-way. The Department coordinates with other agencies that have appropriate legal authority to pursue and take enforcement action against persons causing or threatening to cause illegal discharges.

**ES.3 BEST MANAGEMENT PRACTICES IDENTIFICATION AND IMPLEMENTATION**

Section 3 of the Statewide SWMP describes the Best Management Practices (BMP) categories that are used by the Department, the process used to identify BMPs, and the BMP implementation process. These BMPs are applied to meet the maximum extent practicable (MEP) and best conventional technology/best available technology (BCT/BAT) requirements and to address compliance with water quality standards. The BMP categories identified in the SWMP are:

- **Category I BMPs**: Technology-based pollution prevention controls to meet MEP requirements for designing and maintaining roadways and related facilities.
  - **Group A**: Maintenance BMPs
  - **Group B**: Design pollution prevention BMPs

- **Category II BMPs**: Temporary construction BMPs to meet BCT/BAT requirements for construction projects resulting in soil disturbance of one or more acres.

- **Category III BMPs**: Treatment controls.

The selected BMPs are identified in Appendix C.
ES.4 PROJECT DELIVERY STORM WATER MANAGEMENT PROGRAM

The Project Delivery Storm Water Management Program (Section 4) addresses the processes, procedures, and responsibilities for incorporating selected BMPs into the planning, design, and construction of new projects and expansion or reconstruction of existing facilities. The program includes responsibilities for the Department's Design and Construction personnel as well as construction contractors.

The Department has incorporated the consideration and selection of BMPs into existing Department project delivery procedures and milestones. Project Delivery personnel will assess the need for and opportunities to incorporate BMPs during the initial planning phases of new facilities and significant expansion or reconstruction of existing facilities. The Department considers and incorporates applicable permanent BMPs during project planning and design. Furthermore, under certain conditions, the project design team may specify temporary BMPs to be used during construction in addition to, or in place of, other temporary measures selected by contractors.

Pollution prevention BMPs (Category IB) are considered for all new facilities, as well as for existing facilities that are reconstructed or expanded.

Construction BMPs (Category II) are temporary BMPs that the Department has selected to meet BCT/BAT for construction projects. The selected temporary BMPs are consistent with the practices required under the State of California NPDES General Permit for Storm Water Discharges Associated with Construction Activities and are intended to achieve compliance with the requirements of the Permit. Where there is an existing or proposed storm drain system with a drainage pipe or collection ditch discharging into either a receiving water or a downstream storm drain system owned by others, approved treatment systems (Category III) will be considered and, where feasible, installed. This applies to both improvement projects and existing discharges.

As part of all transportation improvement projects, the project engineer will maximize the use of vegetation-covered soil areas. These areas are treatment zones known as —bio-filters“(overland flow areas) and —bio-swales“(vegetation-lined ditches).

ES.5 MAINTENANCE STORM WATER MANAGEMENT PROGRAM

The Maintenance Storm Water Management Program (Section 5) addresses the implementation of selected BMPs for maintenance activities. These BMPs are categorized for the following maintenance activities: flexible pavement; rigid pavement; slopes, drainage, and vegetation; litter, debris and graffiti; landscaping; bridges; other structures; electrical; traffic guidance; snow and ice control; storm maintenance; and management of maintenance facilities.

The Maintenance Storm Water Management Program includes BMPs to minimize potential storm water pollution from accidental spills, illicit connections, and illegal discharges and dumping. Illicit connections within the Department’s rights-of-way are rare, due to restricted access. As appropriate, illegal discharges and dumping are reported to local enforcement agencies when discovered.

The Department operates highway maintenance facilities used for storage and repair. Selected BMPs for maintenance facilities are categorized under the following activities: material storage
controls; housekeeping practices; vehicle equipment fueling; vehicle and equipment pressure washing; vehicle and equipment maintenance and repair; outdoor loading and unloading of materials; outdoor storage of materials; minimization, handling, and disposal of waste; and grounds maintenance. The Department will continue to reduce the potential for storm water pollution by the development and implementation of Facility Pollution Prevention Plans (FPPPs), which specify controls to minimize contact between storm water and the various substances at highway maintenance facilities. Periodic inspections are conducted to evaluate whether the BMPs are adequate and properly implemented.

ES.6 TRAINING AND PUBLIC EDUCATION PROGRAM

Section 6 describes the Department’s internal Training and Public Education Program. The Department’s policy and practice is to provide education and training to ensure that all of its employees have the knowledge and skills necessary to perform their functions effectively and efficiently.

The Department develops and presents employee training programs with curricula and materials tailored to specific topics and personnel levels. These programs are evaluated and updated periodically to ensure that the educational messages are both timely and effective.

Storm water training courses have been developed; these courses provide a comprehensive review of storm water pollution prevention concepts and practices. The curriculum focuses on storm water pollution prevention and consists of courses and other training activities. Storm water training materials are also incorporated into routine training programs. This training is reinforced and updated through educational reminders and a storm water Web site.

The Department also provides outreach to construction contractors to raise their awareness and understanding of the problems and causes of storm water pollution and to explain their responsibilities.

The Department currently uses a variety of methods to educate the public about the importance of managing storm water. The goals of the existing program are to:

- Inform the public regarding storm water quality issues that pertain to the Department’s properties, facilities and activities; and
- Change public behavior regarding the release of potential pollutants (e.g., litter, spilled loads, and oil leaks).

This public outreach program consists of a variety of written materials, monthly and quarterly bulletins, a Web site, workshops and the Department’s Adopt-a-Highway Program. The written materials are designed to appeal to the general public, in easy-to-read formats, while providing technical information on selected Department projects and activities. Cooperative public educational programs with local municipalities are described in District Work Plans.

The Department installs “No Dumping” and “Litter Fine” signs at selected locations on highways and freeways. Stenciled warnings prohibiting discharges to drain inlets at state-owned park-and ride lots, rest areas, vista points, and other areas with pedestrian traffic are also used to increase public awareness.
During fiscal year (FY) 2000/2001, the Department initiated a public education research study to determine the effectiveness of public education in reducing highway litter.

**ES.7 MONITORING AND RESEARCH PROGRAM**

The Department’s Monitoring and Research Program (Section 7) provides information on problem pollutants and the performance of storm water controls. This information is used to establish the need for new or improved BMPs. The monitoring of existing or pilot project BMPs helps in the evaluation of existing and potential BMPs.

The research program is used to further characterize pollutants (e.g., litter or pathogens) and to test control technologies. Other support activities include development of models and compiling the key water quality data necessary to make storm water management decisions.

The Department has currently organized the Monitoring and Research Program under four tasks. This organizational structure combines and renames tasks formerly identified for the Monitoring and Research Program. The tasks were reorganized to consolidate similar activities into four teams in place of the original seven teams. This provides some cost economies, reduces duplication, and enhances communication. No research items were deleted; however, some were combined. The modeling efforts were incorporated into Monitoring and Water Quality Research. Litter Management was incorporated into Storm Water Treatment Technology Research. Research Program Management is now accomplished by the leads of the four remaining teams.

The current organizational tasks include:

- Monitoring and Water Quality Research;
- Watershed planning;
- Erosion control; and
- Storm Water Treatment Technology Research.

The Department has created project teams to address each of these tasks.

**ES.8 PROGRAM EVALUATION**

The Department’s overall strategy for protecting receiving waters involves the use of effective storm water management practices and a process of continuous program improvement and refinement. As part of its storm water management program, the Department regularly reviews its activities, inspects its facilities, oversees and guides its personnel and conducts focused studies to obtain information that supports responsible management and allocation of the resources available to implement storm water quality efforts. These program evaluation efforts are described in Section 8.

The primary mechanism for accomplishing program evaluation and ensuring that front line personnel have adequate assistance to be successful is the day-to-day supervision by the Deputy District Directors (or Regional Managers). The Department’s management provides oversight to ensure compliance with the Statewide SWMP. Such oversight includes observing, inspections, and evaluating Design and Construction personnel as they implement the requirements of the
Statewide SWMP on new projects and Maintenance Division personnel as they conduct highway maintenance activities.

The Deputy District Director (or Regional Manager) for Design supervises the District’s Project Engineers to ensure compliance and, as needed, brings in assistance from within the District or from Headquarters. The Deputy District Director (or Regional Manager) for Construction supervises the District’s Resident Engineers in a similar manner. The Deputy District Director (or Regional Manager) for Maintenance supervises the District’s Area Superintendents to ensure compliance and, as needed, brings in assistance from within the District or from Headquarters.

In addition to day-to-day supervision by District managers, the Department’s Headquarters program management (i.e., Design, Construction and Maintenance) provides focused follow-up checks with their counterpart District functional units on a regular basis. These checks involve:

- On-site visits;
- Periodic meetings; and
- Functional reviews of District activities by Headquarters.

The goals of the Department’s self-audits are to evaluate the efficiency and effectiveness of the activities outlined in the Statewide SWMP; to provide a sound basis for re-directing or refining such activities; to recommend ways to revise or refine the Statewide SWMP, as needed; and to assess compliance with Permit and program requirements. The self-audit is viewed as independent from line management. Self-audits will be carried out by the Water Quality Program under the direction of the Director.

Program evaluation serves as a quality control mechanism to help the Department determine how well the activities identified in this Statewide SWMP are being implemented. The Department has three major efforts to assess Statewide SWMP implementation and Permit compliance: Design Compliance Monitoring, Construction Compliance Monitoring and Maintenance Compliance Monitoring.

The stormwater quality assurance and response program define the typical lines of authority from the Director to the Resident Engineer for construction projects and from the Director to the Maintenance Area Supervisor for maintenance activities and facilities. The Construction program encompasses the activities, authority, and protocols for the quality control by the construction project Contractor, quality assurance by the Resident Engineer, quality assurance by the District Stormwater Coordinator, and the independent quality assurance by a Third Party. Similarly, the Maintenance program encompasses the quality control by the Maintenance Area Supervisor, the quality assurance by the District Maintenance Stormwater Coordinator, and the independent quality assurance by a Third Party. The Quality Control, Quality Assurance, and Independent Quality Assurance Team procedures follow the same response plan process for the self-audit and escalation of resolution through an Enforcement Response Program. The enforcement response program could involve, as needed, the four levels of authority from the Construction Manager or the Region Manager to the Deputy District Director, the District Director, and ultimately the Department (Caltrans) Director for enforcement. Corrective action(s) for program enforcement could include any of the following: focused training, administrative correction (e.g., BMP installation, resource allocation), and or programmatic corrections (e.g.,
guidance improvements, policies, and directives). The responses and completion of actions are tracked by the Division of Environmental Analysis (DEA) with oversight by the Chief Environmental Engineer (CEE). Resolution of critical issues is elevated through the enforcement response plan process, the Independent Quality Assurance program, and through the Water Quality Management Assurance Team (WQMAT). Enforcement actions and resolutions will be resolved in a timely manner.

ES.9 REPORTING

The Department’s reporting requirements include preparing the Annual Report, reporting noncompliance with the Statewide SWMP, and reporting discharges that cause or contribute to an exceedance of water quality standards. The Department’s reporting procedures are described in Section 9.

Instances of noncompliance involve nonpermitted non-storm water discharges or discharges that may significantly endanger health or the environment. Such discharges from operations of existing facilities or construction sites will be reported to the appropriate RWQCB. Advance notice of anticipated noncompliance will also be reported to the appropriate RWQCB.

ES.10 LOCATION-SPECIFIC REQUIREMENTS

Location-specific requirements describe regional exceptions/additions to the procedures and practices stated elsewhere in the Statewide SWMP. Such exceptions/additions reflect special conditions within the state and are discussed in Section 10.
SECTION 1 OVERVIEW OF STORM WATER MANAGEMENT PLAN

1.1 INTRODUCTION

This Statewide Storm Water Management Plan (SWMP) was developed by the California Department of Transportation (the Department) for the purpose of describing the minimum procedures and practices the Department uses to reduce the discharge of pollutants in discharges from storm drainage systems owned or operated by the Department. This SWMP is the latest edition in a series of storm water management plans that have been progressively revised by the Department to reflect changes in the state of the art, changes in regulatory requirements, and changes in the Department’s procedures and practices. This latest edition responds to the requirements set forth in the Department’s Statewide National Pollutant Discharge Elimination System (NPDES) Storm Water Permit (Order No. 99-06-DWQ) adopted by the California State Water Resources Control Board (SWRCB) on July 15, 1999 (herein referred to as the Permit). The United States Environmental Protection Agency (U.S. EPA) issued “Findings of Violation and Order for Compliance” (Order) to Caltrans on October 26, 2010. The Order is based on U.S. EPA’s Audit Report, which was issued and posted on March 1, 2010. A requirement of the Order was to prepare a revised Stormwater Management Plan (SWMP) addressing the Audit Report’s major findings.

This Statewide SWMP addresses storm water pollution control related to highway planning, design, construction and maintenance activities throughout the state of California. In addition, this Statewide SWMP addresses assignment of responsibilities within the Department for implementing storm water management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities.

This overview section provides introductory information on the following topics:

- Storm water regulations that apply to the Department (Section 1.2);
- The types of properties, facilities, and activities covered by this Statewide SWMP (Section 1.3);
- The relationship between the Permit and this Statewide SWMP (Section 1.4);
- Regulatory roles and responsibilities (Section 1.5); and
- The contents and organization of this Statewide SWMP (Section 1.6).

This document is intended to govern the Department’s storm water management activities on a statewide basis. However, there may be circumstances (e.g., by court order) under which the Department will be required to implement different and/or additional practices.

1.2 STORM WATER REGULATIONS THAT APPLY TO THE CALIFORNIA DEPARTMENT OF TRANSPORTATION

Federal environmental regulations based on the Clean Water Act (CWA) have evolved to require the control of pollutants from municipal separate storm sewer systems (MS4s), construction sites...
and industrial activities. Discharges from such sources were brought under the NPDES permit process by the 1987 CWA amendments and the subsequent 1990 promulgation of storm water regulations by the U.S. Environmental Protection Agency (EPA). In California, EPA has delegated administration of the federal NPDES program to the SWRCB and the nine Regional Water Quality Control Boards (RWQCBs). The SWRCB has issued statewide general NPDES storm water permits for designated types of construction and industrial activities and has also developed and issued the Department’s Permit.

Under the federal storm water regulations, portions of the Department’s properties, facilities and activities come under the jurisdiction of NPDES storm water regulations for two primary reasons:

- The Department’s highways and highway-related properties, facilities and activities are served by extensive storm drain systems that in urban areas are often connected to, and are considered to be comparable to, municipal separate storm sewer systems, which are covered explicitly in the federal storm water regulations.

- Construction of the Department’s highways and related facilities often results in soil disturbance of one acre or more, for which specific requirements are prescribed by the federal storm water regulations and the State’s Construction General Permit (CGP).

- When performing construction projects that cross Tribal boundaries onto Tribal land, Caltrans will seek coverage under the United States Environmental Protection Agency (U.S. EPA) Construction General Permit. In the Lake Tahoe Hydrologic Unit, Caltrans will comply with the Lake Tahoe Construction General Permit (R6T-2011-0019). Caltrans will be responsible for complying with construction stormwater discharge requirements on its projects statewide, whether activities are performed directly by Caltrans staff or by contractors on behalf of Caltrans.

The Code of Federal Regulations (CFR), at 40 CFR 122.26(a)(iii) and (iv), requires that NPDES storm water permits be issued for discharges from large and medium MS4s. The regulations define the term “municipal separate storm sewer systems” to mean “a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) owned or operated by a state, city, town, borough, county….” The Department, as the owner and operator of an MS4, is subject to an NPDES MS4 permit in those areas of California specified under federal regulation (urban areas with population greater than 100,000). Furthermore, federal regulations (40 CFR 122.26) require discharges of storm water associated with construction activity, including clearing, grading and excavation activities, to obtain coverage under the Construction General Permit.

Prior to the issuance of the Permit, the Department’s storm water discharges were permitted under a variety of arrangements in its 12 Districts. Some Districts were covered in part by more than one NPDES MS4 permit; others were covered by none (except for construction projects that covered 2 hectares or more). The Permit and this Statewide SWMP provide a framework for consistent, effective and efficient implementation of storm water management practices statewide in all of the Department’s Districts.
SECTION ONE
Overview of Storm Water Management Plan

1.3 CALIFORNIA DEPARTMENT OF TRANSPORTATION’S FACILITIES AND COVERAGE OF STATEWIDE SWMP

The primary mission of the Department is to provide the people of California with a safe, efficient intermodal transportation system. This mission involves planning, designing, constructing and maintaining large-scale transportation facilities (e.g., freeways, highways, interchanges, bridges and tunnels). The Department also has the responsibility of accomplishing its mission in ways that comply with public policy and applicable regulations, including complying with the federally mandated storm water runoff program through complying with the Permit and by implementing an effective Statewide SWMP.

1.3.1 California Department of Transportation’s Facilities and Storm Water Systems

To protect public safety and prevent property damage, the Department operates its storm water drainage systems to minimize flooding and prevent the presence of standing water on traveled surfaces. Runoff is typically directed off roadway surfaces (and other paved areas and non-paved areas within a right-of-way) via drainage systems within or adjacent to the Department’s rights-of-way. In some locations, runoff drains from off-site areas onto the Department’s rights-of-way or the Department’s facility sites due to local topography and drainage patterns. In these cases, the Department’s drainage systems are designed to convey not only the storm water contributed from the Department’s property, but also storm water from off-site areas.

In urban areas, some drainage systems discharge directly to receiving waters; others discharge to municipal storm drain systems. Highways in urban settings typically have curbs and gutters, whereas freeways and rural highways typically have off-shoulder or median drainage swales.

The Department’s facilities are located in diverse settings, ranging from highly urbanized to very rural areas, including seacoasts, deserts, forests, farmland and mountainous terrain.

Drainage systems that serve the Department’s properties and facilities ultimately discharge storm water and permitted or exempt non-storm water to surface receiving waters as diverse as desert washes, intermittent creeks, perennial streams, lakes, estuaries, coastal waters and wetlands. The sensitivity of receiving waters to potential impacts from storm water discharges also varies widely, depending on factors such as location, local hydrology, the nature of the Department’s facilities and drainage systems, discharges and pollutants from other sources, and the beneficial uses of the receiving waters.

1.3.2 Storm Water Quality Issues

Table 1-1 presents the average Department storm water runoff concentrations compared to the most stringent of the water quality objectives (WQOs) established by the Ocean Plan, Basin Plan, or California Toxics Rule (CTR). For certain constituents/parameters, no numeric WQO is currently established. For those constituents/parameters, a narrative objective was used. The

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1 The term “facilities” means all Department highways and highway-related properties, facilities and activities, as described in Section 1.3.3.

California Department of Transportation
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comparison shows that concentrations in storm water runoff from the Department’s facilities exceed the numeric WQO values for nearly half of the constituents listed. It is important to note that the comparison for metals were made based on the dissolved fraction of the metal as specified in the CTR. In addition, the Department monitored volatile organic, semi-volatile organic, and other organic pesticides in highway and construction site runoff characterization studies, and those parameters were not detected. As more data become available, the Department will be in a better position to assess the actual or threatened impacts runoff from storm drainage systems owned or operated by the Department may have on receiving water quality. These data will be used for a variety of water quality issues, including determining if Department runoff causes or contributes to exceedances of water quality standards, development of total maximum daily loadings (TMDLs), and watershed planning. These data will also be used to characterize runoff from the Department’s facilities and from storm drain systems owned or operated by the Department and to aid the Department in determining appropriate and adequate BMPs.

1.3.3 Coverage of Statewide SWMP

This Statewide SWMP describes the minimum procedures and practices used to reduce the discharge of pollutants from storm water drainage systems owned or operated by the Department. The Department’s activities or properties that may be sources of pollutants are:

- Road surfaces and shoulders (highway rights-of-way);
- Highway-related facilities, including maintenance facilities, park-and-ride lots, rest areas, vista points, toll plazas and inspection stations; and
- Construction activities conducted within highway rights-of-way.

The specific Department owned or operated facilities addressed by the Statewide SWMP are identified in Appendix B.

Additional information has been added to this version of the Statewide SWMP to further explain the Department’s third-party activities. Information previously included in Section 1.3.3 has been moved to Section 2.2.10 and consolidated with the new information to improve readability. No changes have been made to Table 1-1 from the May 17, 2001, SWMP. This table may be updated in the future if additional monitoring data indicate changes are needed.
### TABLE 1-1: COMPARISON OF THE DEPARTMENT’S STORM WATER RUNOFF QUALITY TO WATER QUALITY OBJECTIVES

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbreviation</th>
<th>Unit</th>
<th>WQO&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Average Storm Water Runoff Concentration From the Department’s Facilities&lt;sup&gt;(2)&lt;/sup&gt;</th>
<th>Is the Department’s Average Storm Water Runoff Concentration Greater Than WQO?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highways</td>
<td>Maintenance Yards</td>
</tr>
<tr>
<td>Conventional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological oxygen demand</td>
<td>BOD</td>
<td>mg/L</td>
<td>Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.</td>
<td>15.5</td>
<td>14.2</td>
</tr>
<tr>
<td>Chemical oxygen demand</td>
<td>COD</td>
<td>mg/L</td>
<td>Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.</td>
<td>86</td>
<td>79</td>
</tr>
<tr>
<td>pH</td>
<td>pH</td>
<td>pH units</td>
<td>The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge. The pH of bays or estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.</td>
<td>7.4</td>
<td>7.3</td>
</tr>
</tbody>
</table>
### Average Storm Water Runoff Concentration From the Department's Facilities *(2)*

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbreviation</th>
<th>Unit</th>
<th>WQO (^{(1)})</th>
<th>Is the Department's Average Storm Water Runoff Concentration Greater Than WQO?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature</strong></td>
<td>Temp.</td>
<td>°C</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total dissolved solids</strong></td>
<td>TDS</td>
<td>mg/L</td>
<td>118</td>
<td>70</td>
</tr>
<tr>
<td><strong>Total suspended solids</strong></td>
<td>TSS</td>
<td>mg/L</td>
<td>160</td>
<td>125</td>
</tr>
<tr>
<td><strong>Turbidity</strong></td>
<td>Turb.</td>
<td>NTU</td>
<td>60</td>
<td>170</td>
</tr>
</tbody>
</table>

*(1)* Constituent abbreviation, unit, and WQO are provided in the table. **(2)** For purposes of this comparison, the WQO is the concentration of each constituent that, if exceeded, is believed to be harmful to aquatic life (except aquatic plants) and/or to put public health at risk. The WQO was determined based on the best available science and data and is used as a benchmark to determine if an average concentration of storm water runoff is greater than the WQO. The concentration of each constituent in storm water runoff concentrations from the Department's facilities is compared to the WQO. The table above lists the constituents, their abbreviations, units, WQOs, and a description of the conditions under which discharges of wastes or wastewater shall not increase the concentration of each constituent in receiving waters.

The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the RWQCB that such alteration in temperature does not adversely affect beneficial uses.

Discharges of wastes or wastewater shall not increase the total dissolved solids content of receiving waters, unless it can be demonstrated to the satisfaction of the RWQCB that such an increase in total dissolved solids does not adversely affect beneficial uses of receiving waters.

Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural
**Overview of Storm Water Management Plan**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbreviation</th>
<th>Unit</th>
<th>WQO(^{(1)})</th>
<th>Average Storm Water Runoff Concentration From the Department's Facilities(^{(2)})</th>
<th>Is the Department's Average Storm Water Runoff Concentration Greater Than WQO?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highways</td>
<td>Maintenance Yards</td>
</tr>
<tr>
<td>Litter/Trash</td>
<td>Trash</td>
<td>Lb/acre(^{(3)})</td>
<td>20.5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Metals(^{(4)})</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>Al</td>
<td>ug/L</td>
<td>1,000</td>
<td>155</td>
<td>N/A</td>
</tr>
<tr>
<td>Arsenic</td>
<td>As</td>
<td>ug/L</td>
<td>50</td>
<td>2.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Cd</td>
<td>ug/L</td>
<td>2.2(^{(5)})</td>
<td>0.6</td>
<td>0.3</td>
</tr>
<tr>
<td>Chromium</td>
<td>Cr</td>
<td>ug/L</td>
<td>2</td>
<td>3.1</td>
<td>1.4</td>
</tr>
<tr>
<td>Copper</td>
<td>Cu</td>
<td>ug/L</td>
<td>3.1</td>
<td>15.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Lead</td>
<td>Pb</td>
<td>ug/L</td>
<td>2</td>
<td>7.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Mercury</td>
<td>Hg</td>
<td>ug/L</td>
<td>0.04</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Nickel</td>
<td>Ni</td>
<td>ug/L</td>
<td>5</td>
<td>6.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Selenium</td>
<td>Se</td>
<td>ug/L</td>
<td>5</td>
<td>ND</td>
<td>N/A</td>
</tr>
<tr>
<td>Silver</td>
<td>Ag</td>
<td>ug/L</td>
<td>1.9</td>
<td>0.6</td>
<td>ND</td>
</tr>
<tr>
<td>Zinc</td>
<td>Zn</td>
<td>ug/L</td>
<td>20</td>
<td>89.5</td>
<td>108</td>
</tr>
<tr>
<td>Nutrients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>NH(_3)</td>
<td>mg/L</td>
<td>0.007(^{(6)})</td>
<td>1.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Nitrate (N)</td>
<td>NO(_3)</td>
<td>mg/L</td>
<td>10</td>
<td>1.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Nitrite (N)</td>
<td>NO(_2)</td>
<td>mg/L</td>
<td>1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Ortho- phosphate (P)</td>
<td>Ortho-P</td>
<td>mg/L</td>
<td>0.2</td>
<td>0.1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Constituent</th>
<th>Unit</th>
<th>WQO(1)</th>
<th>Average Storm Water Runoff Concentration From the Department’s Facilities(2)</th>
<th>Is the Department’s Average Storm Water Runoff Concentration Greater Than WQO?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Highways</td>
<td>Maintenance Yards</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Kjeldahl Nitrogen</td>
<td>TKN</td>
<td>mg/L</td>
<td>2.9</td>
<td>2</td>
</tr>
<tr>
<td>Total Phosphorus</td>
<td>TP</td>
<td>mg/L</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Microbiological</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>MPN/100/mL</td>
<td>20</td>
<td>8,170</td>
<td>N/A</td>
</tr>
<tr>
<td>Total Coliform</td>
<td>MPN/100/mL</td>
<td>70</td>
<td>30,500</td>
<td>N/A</td>
</tr>
<tr>
<td>Toxicity</td>
<td>Tox.</td>
<td>% Survival</td>
<td>N/A(7)</td>
<td>N/A</td>
</tr>
<tr>
<td>Oil and Grease</td>
<td>O&amp;G</td>
<td>mg/L</td>
<td>14.5</td>
<td>2.4</td>
</tr>
</tbody>
</table>

that such growth causes nuisance or adversely affects beneficial uses.

Numerical comparison is not possible

Toxicity - All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no acute toxicity in ambient waters. Acute toxicity is defined as a median of less than 90 percent survival, or less than 70 percent survival, 10 percent of the time, of test organisms in a 96-hour static or continuous flow test.

Numerical comparison is not possible

Waters shall not contain oils, greases, waxes, or other similar materials in concentrations that result in
## Overview of Storm Water Management Plan

### Average Storm Water Runoff Concentration From the Department's Facilities

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Abbreviation</th>
<th>Unit</th>
<th>WQO(^{(1)})</th>
<th>Highways</th>
<th>Maintenance Yards</th>
<th>Construction Sites</th>
<th>Is the Department’s Average Storm Water Runoff Concentration Greater Than WQO?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpyrifos</td>
<td>ug/L</td>
<td></td>
<td>No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.</td>
<td>0.6</td>
<td>0.04</td>
<td>0.3</td>
<td>Numerical comparison is not possible</td>
</tr>
<tr>
<td>Diazinon</td>
<td>ug/L</td>
<td></td>
<td>No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.</td>
<td>0.7</td>
<td>0.13</td>
<td>0.4</td>
<td>Numerical comparison is not possible</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>ug/L</td>
<td></td>
<td></td>
<td>700</td>
<td>39.6</td>
<td>N/A</td>
<td>No</td>
</tr>
</tbody>
</table>

### Notes:
- **WQO\(^{(1)}\)**: Most stringent Water Quality Objective (WQO) based on the Basin Plans, California Toxics Rule and the Ocean Plan. Narrative statement was used for those constituents that numerical WQO was not available.
- **Highways**: Average based on the 1997-98 and 1998-99 monitoring data.
- **Acre**: Reported here is the area related to the Department’s right-of-way.
- **Values shown**: Dissolved concentrations.
- **Function of the total hardness**: Values shown corresponds to a total hardness of 100 mg/L.
- **pH and temperature**: pH and temperature dependent. Value shown corresponds to a pH of 7 and temperature of 15 °C.
- **Sufficient toxicity data**: Data is not available to report.
In various areas of the State, waters of the United States or waters of the State pass through, over or under the Department’s property and facilities. Those waters may contain pollutants at the point at which they enter the Department’s property and facilities. In those circumstances, the Department will be responsible only for pollutants contributed to such waters that are discharged from its point source and not for the pollutants present in those waters when they entered the Department’s properties.

1.3.4 Emergency Actions

Throughout the year, conditions may arise that require the Department to conduct emergency activities to protect public health, safety and property. Conditions during the emergency activities may result in the Department not implementing elements of the SWMP. Such incidents are not considered noncompliance in accordance with the Federal Code of Regulations 40 CFR Section 122.41 (n)(1) through (4) which addresses upsets, such as emergency response for public safety. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations provided certain requirements are met [see 40 CFR Section 122.41(n)(3)].

1.4 RELATIONSHIP BETWEEN THE PERMIT AND THE STATEWIDE SWMP

The Permit directs the Department to implement and maintain an effective Statewide SWMP. Annually the Department is required to report on the SWMP’s implementation and assess its effectiveness. The Permit also requires specific revisions in the Statewide SWMP submitted with the Permit application. The Statewide SWMP was approved by the SWRCB on May 17, 2001. Table 1-2 shows which sections of this Statewide SWMP address the information required by Provisions F through L of the Permit (Provision E.4 has been removed from the table in this version of the SWMP to eliminate a redundant reference). This paragraph has been updated to reflect the current status of the SWMP.

The Department will implement the revised SWMP approved by the SWRCB.

Appendix E consists of the Statewide Storm Water Quality Practice Guidelines hereinafter referred to as “Guidelines” which describe in detail the minimum Best Management Practices (BMPs) to be implemented by the Department to reduce pollutants in discharges from storm drain systems owned or operated by the Department. For each BMP, the Guidelines provide a description, a summary of appropriate applications and implementation details.
### TABLE 1-2: ORGANIZATION OF INFORMATION REQUIRED BY PROVISIONS F THROUGH L OF PERMIT

<table>
<thead>
<tr>
<th>Permit</th>
<th>Topic</th>
<th>Statewide SWMP</th>
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<td><strong>Section</strong></td>
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<tr>
<td>F</td>
<td>Program Overview</td>
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<tr>
<td>G</td>
<td>Program Management</td>
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<td>F</td>
<td>Program Overview</td>
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<td>H</td>
<td>Construction Program Management</td>
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<td>I</td>
<td>Maintenance Program Management</td>
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<td>J</td>
<td>Training And Public Education</td>
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<td>Program Evaluation/Reporting</td>
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<td>Program Evaluation/Reporting</td>
<td>9</td>
</tr>
<tr>
<td>L</td>
<td>Location-Specific Requirements</td>
<td>10</td>
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</tbody>
</table>

Section 3 and Appendix C define the process the Department uses to identify, evaluate, approve, and implement BMPs. Approved BMPs to be implemented by the Department are described in detail in the Guidelines.

Although this Statewide SWMP presents programmatic requirements and provides general guidance, it does not contain the level of detailed guidance and requirements that are needed to serve personnel at all positions within the organization whose daily activities may have an impact on storm water quality. Such specific guidance is contained in a variety of other documents, including manuals, standards and specifications. A complete list and copies of the documents currently being used, excluding project-specific documents, have been provided to the SWRCB by the June 1, 2001, due date. They are also available on the Caltrans website at [http://www.dot.ca.gov/manuals.htm](http://www.dot.ca.gov/manuals.htm). New materials and updates developed will be addressed through the annual SWMP revision process. The SWMP will describe the materials or documents to be developed, what the material will cover, and whom it is for and will provide a time schedule for the development and implementation of the material or document. Copies of all future materials and documents will be provided in future Annual Reports, and a summary of the materials and documents developed will be provided in the Annual Reports. The goal of the Department is to incorporate BMPs identified in this and subsequent SWMPs into the...
Department’s general operational manuals. This allows the Department flexibility to make necessary modifications to expand or improve upon the detailed procedures within the framework of the Statewide SWMP.

The SWMP also encourages the Department to use innovative approaches for implementing BMPs presented in the SWMP and implementing new BMPs not yet addressed in this SWMP. For approved treatment BMPs, the Districts are required to review their proposed changes with the Department’s Headquarters prior to implementing any changes to ensure treatment efficiencies based on siting, design, maintenance and operation requirements are not reduced as a result of the change.

The Department is required in various Sections of the SWMP to submit documents and reports that may be subject to the approval of the Executive Director of the SWRCB. The Department will submit these documents and reports as required. Once SWRCB has reviewed these submittals, the Executive Director will provide written comments to the Department, as appropriate, regarding the adequacy of these submittals to comply with the intent and requirements of the Permit and SWMP.

1.5 REGULATORY ROLES AND RESPONSIBILITIES

An important purpose of the Statewide SWMP and the Department’s Storm Water Management Program is to ensure that those who direct and perform activities that may affect the quality of storm water system discharges are aware of their respective roles and responsibilities. Figure 1-1 and the following paragraphs describe the respective roles of the regulatory agencies in administering the storm water regulatory program and the Permit.

The CWA (as amended) directs EPA to implement federal regulations governing water quality, including discharges from storm water drainage systems. The CWA also allows EPA to delegate NPDES permitting authority to states that have approved regulatory programs. The State of California is a delegated state and issues, monitors, and enforces NPDES permits through its legal authority provided by the California Water Code. EPA retains authority to approve, reject, issue, monitor, and enforce NPDES permits in California.

The SWRCB develops statewide policies and regulations required to effectively implement the NPDES program. The SWRCB developed and issued the Department’s Permit. The SWRCB will generally communicate directly with the Department’s Headquarters, which in turn will coordinate with the 12 Districts. The SWRCB and RWQCBs are responsible for enforcement of the Permit. As shown in Figure 1-2, one District may need to communicate with one or more RWQCBs. In most cases, two or more Districts are located within the jurisdiction of one RWQCB.

The nine RWQCBs, within their respective jurisdictions, provide program implementation at the District level. This oversight will include compliance inspections, program tracking, coordination and enforcement actions. In addition, the RWQCBs regulate other storm water dischargers. In this role, the RWQCBs communicate directly with the Districts. Figure 1-2 is a map showing the relationship between District and RWQCB boundaries (see Appendix B for more detailed District information).
Figure 1-1: Regulatory Responsibilities Under Permit
SECTION ONE

Overview of Storm Water Management Plan

Figure 1-2: Map of California with RWQCB and District Boundaries

KEY

0 Department District Number

- RWQCB Boundary

- Department & RWQCB Shared Boundary

RWQCB Name (Number)
North Coast (1)
San Francisco Bay (2)
Central Coast (3)
Los Angeles (4)
Central Valley (5)
Lahontan (6)
Colorado River (7)
Santa Ana (8)
San Diego (9)
1.6 ORGANIZATION OF THIS STATEWIDE SWMP

The remainder of this document, including the Appendices, describes the essential program elements of the statewide storm water program.

- Section 2 describes the organization and responsibilities for overall Permit compliance and program implementation within the Department. Section 2 also describes coordination with other permittees and agencies.

- Section 3 describes the process for evaluating and selecting BMPs (details are presented in Appendix C).

- Section 4 describes the Project Delivery Storm Water Management Program, which includes the Design Storm Water Management Program, and the Construction Storm Water Management Program.

- Section 5 describes the Maintenance Storm Water Management Program.

- Section 6 describes the Training and Public Education Program.

- Section 7 describes the Monitoring and Research Program used to better define the discharges from specific types of the Department’s facilities and the applied research activities used to develop the information and insight needed to refine the Department’s storm water management program over time.

- Section 8 describes the methods the Department uses to evaluate the overall effectiveness of its storm water management program. Program evaluation consists of management oversight and guidance through tracking and follow-up activities and self-audits of construction projects and maintenance facilities.

- Section 9 describes how the Department will provide reports, including noncompliance reporting, to the SWRCB and RWQCBs.

- Section 10 summarizes requirements, procedures and practices that are unique to specific locations within individual Districts due to the nature of the facilities; the geographic, topographic and/or climatic features within the Districts; or particular local receiving water quality concerns or regulatory requirements.

- Appendix A provides the Stormwater Management Program Enforcement Response Plan.

- Appendix B provides a description of each of the Department’s 12 Districts, including a map of each District, a listing of the District facilities and a map showing RWQCB boundaries.

- Appendix C describes the BMP evaluation and approval process, describes each BMP evaluated and categorizes the BMPs as approved, rejected or further research needed.

- Appendix D provides abbreviations, acronyms and definitions of terms used in the Statewide SWMP.
The Guidelines provide a description of each approved BMP included in the Statewide SWMP for statewide application.
SECTION 2  PROGRAM MANAGEMENT

2.1 OVERVIEW

The goal of the statewide SWMP is to protect and achieve water quality standards at all times. The minimum requirement is to ensure that pollutants in discharges from storm drain systems owned or operated by the Department are reduced to the maximum extent practicable and that pollutants in discharges from construction activities covered by the State of California General Permit for Storm Water Discharges Associated with Construction Activities are reduced by employing BAT/BCT.

This section describes the organizational structure of the Department with regard to storm water program management. This section is organized as follows:

- Section 2.2 describes Caltrans’ organization and the management responsibilities of individuals and groups with respect to storm water quality management. This section also describes program oversight and quality assurance for statewide consistency and stormwater compliance.

- Sections 2.3 and 2.4 describe how Caltrans will coordinate with MS4 permittees (e.g., cities and counties), which also have responsibilities for managing discharges from storm water drainage systems, and with RWQCBs, which enforce permit requirements.

- Section 2.5 describes how Caltrans will coordinate with the public and third parties.

- Section 2.6 describes the legal authority supporting the implementation of Caltrans’ program.

2.2 STORM WATER MANAGEMENT RESPONSIBILITIES WITHIN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION

Caltrans’ Headquarters is in Sacramento. Caltrans’ functions are divided between Headquarters and its 12 Districts. The Department uses a matrix organization to provide statewide coordination and resource sharing. Within this matrix, the Department uses two lines of authority to coordinate and conduct Permit and Statewide SWMP compliance activities: traditional line management and functional program management. Traditional line management consists of the 12 District Directors and the functional Deputy District Directors (or Regional Managers) within each District (i.e., Planning, Design, Construction and Maintenance). Functional program management consists of the Director, the Deputy Directors, the Headquarters Division Chiefs (i.e., Environmental, Design, Construction, Right of Way, Maintenance and Traffic Operations), and their respective functional counterparts in the Districts (e.g., the functional Deputy District Directors [or Regional Managers]).

Implementation of the Statewide SWMP is initiated by directives from Headquarters. These directives are developed and communicated through both line management and functional program management as follows:
- **Director:** General directives issued by the Director are communicated to the Deputy Directors and to the District Directors.

- **Headquarters Functional Divisions:** The Headquarters functional Divisions provide focused technical guidance, directives and monitoring to the District functional Divisions.

In this way, the functional Divisions in the Districts receive guidance from both line management and the Headquarters functional program management. The Headquarters functional programs have the responsibility for adopting the policies with respect to storm water control that are subsequently implemented by the corresponding District programs. Follow-up on directives, implementation tracking and compliance monitoring are described in Section 8.

The organization chart shown in Figure 2-1 illustrates the chain of responsibilities for implementing the SWMP by line (Districts) and functional (Headquarters) organizations. Detailed discussions of the responsibilities of each organization to develop and implement the elements of the SWMP are provided in the following sections. Headquarters groups have responsibilities in areas of program and policy development, oversight, and monitoring and reporting. The Districts have the responsibility for implementing the storm water program in the field.

![Figure 2-1: Functional Organization Chart for the Storm Water Program](image-url)
The Water Quality Program (discussed in Section 2.2.3) has the overall responsibility for managing the Storm Water Management Program. The Water Quality Program coordinates implementation of the Statewide SWMP with the Districts and the functional programs. The Water Quality Program, together with the other programs in Project Delivery (discussed in Section 2.2.4) and Maintenance (discussed in Section 2.2.5), supports the Storm Water Advisory Teams (SWATs) (discussed in Section 2.2.7), which have a key role in evaluating and improving BMPs. The District NPDES Storm Water Coordinators (discussed in Section 2.2.9) are the main focal point for Permit issues. The Headquarters functional Divisions take the lead in facilitating implementation of the Statewide SWMP by the corresponding functional units in the Districts.

**Focal Point – Chief Environmental Engineer**

The need for a single focal point was identified and established under a Budget Change Proposal in April 2002 due to the significant size of the Department’s Stormwater Program. This position is referred to as the Department’s Chief Environmental Engineer (CEE) and is located within the Division of Environmental Analysis (DEA). The CEE is the Department’s focal point for advising executive management, local transportation agencies, and other government entities of procedural requirements for complying with the Department’s NPDES Permit and the SWMP. The CEE promotes coordination between the functional units to ensure statewide consistency in the implementation of stormwater management policy and procedures. The CEE is responsible for negotiating and resolving issues with external agencies, and responding to political inquiries and assisting Department counsel in responding to litigation related to the Department’s Permit and the SWMP.

The CEE is the single entity for all issues related to the Department’s overall Stormwater Program (District coordination is described in Section 2.4.1). In addition to providing program and policy guidance to the functional Programs within the Department, the CEE is a liaison to other agencies, including Department of Finance, SWRCB, RWQCBs, California Coastal Commission, Department of Toxic Substances Control, U.S. Environmental Protection Agency, California Environmental Protection Agency, and Transportation Planning Agencies.

The CEE reports to the Chief of the Headquarters DEA. The CEE supervises Stormwater staff members within the DEA who are assigned the following tasks:

- Ensure consistent implementation of the NPDES Permit and Stormwater Management Plan (SWMP);
- Prepare the SWMP and Annual Reports;
- Ensure establishment, accuracy, and adequacy of stormwater resources for each fiscal year;
- Assist the Districts and other Headquarters Divisions in prioritizing and evaluating stormwater resources, activities, and operations;
- Implement and manage program evaluation tasks, including the management and implementation of activities for measuring the level of compliance (i.e., compliance-monitoring);
Program Management

2.2.1 Stormwater Program Oversight and Quality Assurance

Caltrans’ adopted organizational structure, via line and functional management, ensures that the Permit and the SWMP compliance activities are implemented consistently statewide. Line management positions are responsible for day-to-day overall operations, whereas functional program managers oversee specific program areas. Stormwater program requirements and activities are vested with the functional program elements.

The stormwater program is unique in that it must be adaptive to changes in technology, regulations, and requirements, and it operationally relies on feedback from the SWATs, as well as communication from the Division of Environmental Analysis (DEA), to ensure program compliance. Stormwater program compliance oversight plays a critical role in implementation due to the dynamic nature of the regulations and the fact that compliance activities are required for all HQ Divisions. The authority to operate with this flexibility is drawn from the highest line and functional management positions (executive management) in the organization. Recognizing this, the Caltrans Water Quality Management Assurance Team (WQMAT) has been established to provide direct communication between the Division of Environmental Analysis, Headquarters functional managers, and District functional managers.

The WQMAT provides leadership and focus from Caltrans’ executive management (line and functional management positions) to the statewide single focal point (Chief Environmental Engineer) for water quality compliance. This will assure that the goals and directives issued by the Chief Environmental Engineer will be implemented. The specific responsibilities of the WQMAT are as follows:

- Ensure water quality initiatives, policies, and standards reflect Caltrans’ environmental stewardship goals, including:
  1. Preservation of the state’s waters and enhancement of Caltrans’ stormwater discharges for the benefit of California’s water quality resources
  2. Improving the effectiveness and sustainability of best management practices (BMPs)
- Provide clear direction and priorities on the allocation of all water quality resources for support and capital expenditures for program management, project delivery, maintenance and operations.

- Assure the consistent statewide implementation of water quality program management, policies, standards, and specifications by:
  
  1. Seamless cross-functional integration of all Caltrans and water quality management activities into day-to-day practices.
  
  2. Educating department managers, supervisors and staff of the importance of water quality management practices in preservation and enhancement of California’s waters.

- Provide a mechanism for establishing training, education, and communication regarding water quality policy, standards, and technical information (See New TRAINING Section below).

- Provide for a feedback mechanism (District functional managers to the Headquarters equivalent, and District NPDES coordinators through the SWATs to the DEA) to adaptively manage the program and correct program deficiencies.

- Ensure accountability of Resident Engineers (REs) and Maintenance Area Supervisors through delegated authority for compliance with the Caltrans Statewide NPDES Permit, State Construction General Permit (CGP), and the Caltrans Statewide SWMP.

- Respond and provide action based on resolution of issues discussed by the WQMAT, the Chief Environmental Engineer, and respond to recommendations elevated for resolution through the enforcement response program, independent assurance program, (See Stormwater Program Oversight and Quality Assurance and the Program Evaluation Sections).

Figure 2-2 illustrates how the organization will collaborate to accomplish the goals and ensure statewide consistency and compliance with the NPDES Permit and the SWMP. Current or ongoing collaborations among committees and teams are noted in the shaded areas. The list of advisory/steering committees is provided as an example and could include other categories or subgroups.
Resident Engineers and Maintenance Area Supervisors report to both line and functional managers within the Districts, though the final authority at the District level is the line manager: the District Director. The WQMAT recognizes this and includes District Director representation from throughout the state (north, central and south) to enforce stormwater program implementation at the field management level.

Headquarters’ Division of Environmental Analysis and Headquarters functional units will ensure consistency and accountability by District staff on implementation and full compliance of the SWMP and Permit requirements through oversight, inspections, and enforcement programs.

The Headquarters Stormwater Management Teams receive feedback from the Functional Stormwater Advisory Teams (SWATs) regarding specific issues and programmatic changes that may be needed, including critical deficiencies resulting from the stormwater quality assurance and enforcement response programs.
The lines of authority for the stormwater quality assurance response program are depicted in the chart below. Specifically, the chart shows the line of authority from the Caltrans Director to the construction project Resident Engineer and similarly, the line of authority from the Caltrans Director to the Maintenance Area Supervisor.

**STORMWATER QUALITY ASSURANCE RESPONSE PROGRAM
TYPICAL LINES OF AUTHORITY**

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**2.2.2.1 Caltrans Disciplinary Action Process**

The Caltrans Office of Disciplinary Services provides guidance to management and supervisors on the graduated disciplinary policy of the Department. Some of the graduated steps may include preventive, corrective and formal adverse actions. Further, California Government Code §19570-19593 contain the California state law regarding State employees’ discipline and tenure of managerial employees. Respective collective bargaining agreements (CBA) contain the terms and conditions of employment for represented employees. If an employee is subject to the terms of a CBA, the CBA should always be consulted. If the Government Code and the CBA have different processes, the process identified in the CBA is controlling and should be used in lieu of the process identified by the Government Code. All disciplinary actions taken are subject to State Personnel Board regulations and actions on appeal taking into consideration the grievance and arbitration provisions of the applicable CBA. The decision to initiate any level of personnel action against Caltrans personnel must be at the discretion of the immediate supervisor.
2.2.2 Storm Water Management Responsibilities

The discussions provided in this section of the SWMP describe the responsibilities for the overall SWMP development and implementation. Annually, the Districts prepare District Work Plans (Section 9.2.4) that provide specific tasks to be conducted during the reporting period.

The Department is committed to meeting the Permit requirements through implementation of the Statewide SWMP. It should be noted that the organizational arrangements within the Department are dynamic and may evolve to meet changing needs and priorities. In addition, District boundaries may change. However, the commitment to implement the Statewide SWMP will be maintained in any reorganization.

The following subsections describe the storm water management responsibilities of these organization units:

- The Department’s Management;
- Headquarters Water Quality Program;
- Headquarters Project Delivery, including the Divisions of Design, Environmental Analysis, Right of Way and Construction;
- Headquarters Divisions of Maintenance and Traffic Operations;
- SWATs; and
- Districts (specific District functions are described in later sections of the Statewide SWMP).

2.2.3 California Department of Transportation’s Management

2.2.3.1 Director of the California Department of Transportation

The Director of the Department is responsible for overall compliance with the Permit. The Director establishes Permit compliance policy; directs the development, implementation and evaluation of the Statewide SWMP; and seeks resources from the Legislature for implementation. The Director or designee will also certify that reports and plans submitted by Headquarters are in compliance with the Permit.

2.2.3.2 Division Chiefs

Division Chiefs are responsible for statewide implementation for policies and procedures necessary to implement the SWMP. Division Chiefs provide support to the respective Divisions with the Districts during the implementation of the SWMP.

2.2.4 Water Quality Program

The Water Quality Program assists the Headquarters functional programs, the Districts and the Department's transportation partners in complying with the Permit, SWMP and state and federal environmental laws.
The roles of the Water Quality Program in the Department’s storm water program are as follows:

- **Regulatory Coordination:** The Water Quality Program coordinates overall storm water management program compliance with the SWRCB. In addition, the Water Quality Program assists the Districts in coordinating storm water compliance with the RWQCBs through the District NPDES Storm Water Coordinator.

- **Development and Updating of Statewide SWMP:** The Water Quality Program coordinates the ongoing development of the Statewide SWMP and Guidelines and implementation in conformance with the requirements of the Permit. This includes the coordination planning for statewide compliance and identifying area-specific storm water management needs with the Districts. The Water Quality Program also updates the Statewide SWMP annually as required in the Permit; the updating includes public input.

- **Evaluation and Approval of Treatment BMPs:** The Water Quality Program coordinates the evaluation and approval of the treatment BMPs identified for inclusion in the Statewide SWMP to manage the quality of discharges from storm water drainage systems associated with the Department’s facilities. The process for evaluation and approval of BMPs is discussed in more detail in Section 3.2 and in Appendix DC. The Water Quality Program also oversees the evaluation and approval of new storm water quality management techniques, products and designs. The Water Quality Program coordinates the Water Quality SWAT.

- **Water Quality Research Program:** The Water Quality Program coordinates research activities used to assess potential BMPs and investigate water quality issues.

- **Coordination with Districts and Functional Programs:** In consultation with the functional programs, the Water Quality Program provides general guidance regarding compliance with the Permit. This guidance includes providing information on the Permit requirements, Statewide SWMP implementation, storm water BMPs, compliance schedules, reporting formats, legal authorities, budgeting assistance and other information needed to effectively implement the Permit and Statewide SWMP requirements. In addition, the Water Quality Program provides feedback to the Districts and the functional programs regarding the status of the Department’s overall compliance with the Permit.

- **Monitoring:** The Water Quality Program oversees monitoring related to storm water quality management to advance the state of knowledge regarding water quality issues and to provide direction for making program improvements.

- **Program Evaluation:** The Water Quality Program coordinates the assessment of the effectiveness of implementing the Statewide SWMP. The Water Quality Program also conducts compliance monitoring of construction projects and maintenance facilities as described in Section 8.

- **Reporting:** The Water Quality Program coordinates the preparation of the Annual Report, which is discussed in Section 9.2.

- **Training:** The Water Quality Program provides annual refreshers and training for new employees as well as annual updates, as described in Section 6.2.
2.2.5 Project Delivery

Project Delivery includes the Design program, the Construction program, the Right of Way program, and associated functional units. Project Delivery provides guidance and direction to the District Design, Construction, Right of Way and Traffic Operations Divisions. Responsibility matrices showing functional relationships and key positions in the Project Delivery Storm Water Management Program are presented in Figures 2-3 and 2-4.

Figure 2-3: Design Storm Water Management Responsibility Matrix
2.2.5.1 Headquarters Design Division

The role of the Design Storm Water Management Program includes:

- **Coordination**: In coordination with the Water Quality Program, the Design Program provides general guidance to the Design Divisions in the Districts on the implementation of water quality management practices.

- **Program Evaluation**: The Design Program assesses District incorporation of storm water quality management features into facility designs.

- **Reporting**: The Design Program assists the Water Quality Program in the preparation of the Annual Report to the SWRCB, as it relates to Design activities.

The Design Division Chief is responsible for statewide implementation policies and procedures and the personnel of the Design program. This includes ensuring compliance with all elements of the Statewide SWMP required to be implemented by the Design Program.

2.2.5.2 Headquarters Construction Division

The role of the Construction Program includes:

**Coordination**: In conjunction with the Water Quality Program, the Construction Division provides general guidance to Construction Divisions in the Districts on implementation of construction BMPs and the review of Storm Water Pollution Prevention Plans (SWPPPs) and Water Pollution Control Programs (WPCPs).
**Program Evaluation**: The Construction Division assesses the District’s implementation of storm water BMPs for managing the storm water discharges associated with the Department’s construction projects.

**Reporting**: The Construction Division assists the Water Quality Program in the preparation of the Annual Report to the SWRCB, as it relates to Construction activities.

The Construction Division Chief is responsible for statewide implementation policies and procedures and the personnel and equipment of the Construction Program. This includes ensuring compliance with all elements of the Statewide SWMP required to be implemented by the Construction Program.

### 2.2.6 Headquarters Maintenance and Equipment Divisions

The role of the Maintenance Program includes:

- **Coordination**: In coordination with the Water Quality Program, the Headquarters Maintenance Division provides general guidance to the Maintenance Divisions in the Districts on the implementation of maintenance BMPs.

- **Program Evaluation**: The Headquarters Maintenance Division assesses District implementation of BMPs in managing the storm water discharges associated with the maintenance of the Department’s facilities.

- **Reporting**: The Headquarters Maintenance Division assists the Water Quality Program in the preparation of the Annual Report to the SWRCB, as it relates to Maintenance activities.

Figure 2-5 presents the functional relationships and key positions within the Maintenance Storm Water Management Program.

The Maintenance Division Chief is responsible for statewide implementation policies and procedures and the personnel and equipment of the Maintenance Program. This includes ensuring compliance with all elements of the Statewide SWMP required to be implemented by the Maintenance Division.

The role of the Equipment Program Chief includes:

- **Coordination**: In coordination with the Water Quality Program, the Headquarters Equipment Division provides general guidance to the Equipment Shops in the Districts on the implementation of maintenance BMPs.

- **Program Evaluation**: The Headquarters Equipment Division assesses District implementation of BMPs in managing the storm water discharges associated with the operation of the Department’s equipment facilities.

- **Reporting**: The Headquarters Equipment Division assists the Water Quality Program in the preparation of the Annual Report to the SWRCB, as it relates to the Division of Equipment’s activities.
Figure 2-5 presents the functional relationships and key positions within the Equipment Storm Water Management Program.

The Equipment Division Chief is responsible for statewide implementation policies and procedures and the personnel and equipment of the Equipment Program. This includes ensuring compliance with all elements of the Statewide SWMP requiring implementation by the Equipment Division.

2.2.7 Headquarters Traffic Operations and Right-of-Way Programs

The roles of the Traffic Operations and ROW Program in managing third-party activities have been better defined and their descriptions expanded in this version of the SWMP. Traffic Operations is primarily focused on third-party activities during construction. The ROW Program is primarily focused on maintenance activities by third parties.
The role of the Traffic Operations Program includes:

- Coordination: In coordination with the Water Quality Program, Encroachment Permits, a Division of Traffic Operations Program, provides general guidance to the Encroachment Permit Divisions in the Districts on the implementation of water quality management practices.

- Reporting: The Traffic Operations Program assists the Water Quality Program in the preparation of the Annual Report to the SWRCB, as it relates to Encroachment Permit activities.

Figure 2-5 presents the functional relationships and key positions within the Traffic Operations Storm Water Management Program.

The role of the ROW Program includes:

- Coordination. In coordination with WQ Program, ROW provides general guidance to District ROW on the implementation of storm water quality management practices.

- Reporting. The ROW program assists the WQ Program in the preparation of the Annual Report as it relates to ROW activities.

2.2.8 Storm Water Advisory Teams
The Department has established four Department-wide Stormwater Advisory Teams (SWATs). The purpose of the SWATs is to advise the CEE of technical issues of concern within the program, including those that may arise as a result of the quality control, quality assurance, and the enforcement response program. The CEE must approve any SWAT recommendations before changes can be made to the Stormwater Program. The CEE will be responsible for initiating and completing any changes to the stormwater program guidance. The CEE will elevate, as needed, any issues (e.g., policy and directives) that may require resolution through the WQMAT.

The specific functions of the five SWATs are described as follows:

- **The Water Quality SWAT (WQ-SWAT)** is composed of the District NPDES Stormwater Coordinators (DNCs) and representatives from each of the affected Headquarters Divisions. The WQ-SWAT reviews proposed and existing treatment BMPs, and prioritizes research or studies of treatment BMPs. The WQ-SWAT is a forum for discussing stormwater coordination activities underway or planned with other municipalities, reviewing and recommending public education efforts, sharing technical information, providing advice on compliance issues, and resolving issues of dispute on stormwater. Many of these activities result in recommendations for changes to the SWMP or policies and other documents on stormwater. The WQ-SWAT discusses stormwater budget allocations for the Districts and HQ Divisions. The WQ-SWAT reviews data and findings from compliance-monitoring and evaluation activities, and recommends changes in practices to improve compliance efforts.

- **The Project Design SWAT (PD-SWAT)** is composed of District representatives from Design and related functional units and representatives from each of the affected Headquarters Divisions, including the Division of Environmental Analysis (DEA). The PD-SWAT reviews proposed and existing BMPs used in the planning and design of projects. BMPs include construction BMPs, design pollution prevention BMPs, and treatment BMPs. In addition, the PD-SWAT reviews and assists in the development of training classes and guidance documents for implementing stormwater activities relevant to project design.

- **The Construction (includes Encroachment Permit) SWAT (C/EP-SWAT)** is composed of District Construction Stormwater Coordinators and representatives from each of the affected Headquarters Divisions, including DEA. The C/EP-SWAT reviews proposed and existing construction BMPs and measures used for stabilization of soils. In addition, the C/EP-SWAT reviews and assists in the development of training classes and guidance documents for implementing stormwater activities relevant to construction activities. The C/EP SWAT also includes District Encroachment Permit Stormwater Coordinators and...
The Maintenance SWAT (M-SWAT) is composed of District Maintenance Stormwater Coordinators and representatives from each of the affected Headquarters Divisions, including DEA. The M-SWAT provides any necessary review and/or evaluation of proposed and existing BMPs used by the Division of Maintenance. In addition, the M-SWAT reviews and assists in the development of training classes and guidance documents for implementing stormwater activities described in this SWMP for maintaining highways, bridges, facilities, and other appurtenances related to transportation.

Any program recommendations and critical issues discussed during SWAT meetings that require resolution and action are discussed with the Headquarters Stormwater Management Team. The CEE, as the statewide focal point person will discuss as appropriate, any critical stormwater management issues and receive direction from the WQMAT.

### 2.2.9 District Responsibilities

The Districts have the primary responsibility for day-to-day implementation of the Statewide SWMP. Line responsibility for implementation lies with the District Director and each functional Deputy District Director (or Regional Manager). The Districts are responsible for implementation of the stormwater program consistent with statewide model practices in collaboration with Headquarters Division of Environmental Analysis and other applicable Headquarters Functions consistent with the process as described in Section 2.1.1.

#### 2.2.9.1 District Design Divisions

The District is responsible for ensuring that a Notification of Construction is submitted to the appropriate RWQCB at least 30 days prior to the start of construction for projects that require a SWPPP. In addition, the District is responsible for ensuring that a Notice of Completion is submitted to the RWQCB upon completion of construction and stabilization at a site. These responsibilities may be carried out by Project Delivery, Design Division or Construction Division, depending on the District.

The following positions within the Department are responsible for implementing the Design Storm Water Management Program within the Districts:

- **Design Deputy District Director (or Regional Manager):** The Design Deputy District Directors (or Regional Managers) are responsible for the implementation of the policies, procedures and personnel of the Design Program within their respective Districts. This includes ensuring compliance with all elements of the SWMP required to be implemented by the District Design Division.

- **Project Engineer:** The Project Engineer is responsible for the preparation of Project Study Reports and Project Reports during the project planning phase, and plans, specifications and estimates (PS&E) documents (otherwise known as contract plans or bid documents) during the design phase. The Project Engineer determines whether an
SWPPP or a WPCP is required for the construction project and incorporates appropriate permanent BMPs into the project. The Project Engineer, with the assistance of the Design Stormwater Coordinator, determines the project Risk Level. See Section 4.2.1 for additional Project Engineer responsibilities.

### 2.2.9.2 District Construction Divisions

The following positions within the Department are responsible for implementing the Construction Storm Water Management Program within the Districts:

- **Construction Deputy District Director (or Regional Manager):** The Construction Deputy District Directors (or Regional Managers) are responsible for the implementation of the policies, procedures, personnel and equipment of the District Construction Program within their respective Districts. This includes ensuring compliance with all elements of the Statewide SWMP required to be implemented by the District Construction Division. The Construction Deputy District Director (or Regional Manager) is responsible for ensuring that the training program is implemented (per Section 6 of this SWMP), the construction self audit program is implemented (per Section 8 of this SWMP) and that the inspection tracking and construction site inventory programs are implemented (per Section 8 of this SWMP).

- **Construction Storm Water Coordinators:** The Construction Storm Water Coordinator is responsible for conducting inspections to assist the RE in ensuring that storm water controls are implemented on construction sites and to assist the REs in reviewing SWPPPs/WPCPs for adequacy. The Construction Storm Water Coordinator will also ensure that the Construction Inventory completed as a part of the Year-End Summary Performance Report (See SWMP Section 8.4.1.5) is completed for each District on a quarterly basis.

- **Resident Engineer (RE):** The RE is the Department’s representative charged with administering construction contracts and is responsible for ensuring that storm water controls are implemented on construction sites. The RE makes decisions regarding acceptability of material furnished and work performed, and exercises contractual authority to direct the contractor. The RE may impose sanctions if the contractor fails to take appropriate actions specified in the contract to correct deficiencies. See Section 4.2.2 for additional RE responsibilities. The RE shall also ensure that inspectors and the contractor attend construction site stormwater training, and shall cooperate with the self-audit program (SWMP Section 8).(or Caltrans Oversight Engineer)

- **Contractor:** The Contractor is responsible for carrying out the contract per the plans and specifications. The contract requires a contractor to develop and implement elements of the construction program subject to the review and approval of the RE. These activities include preparation, amendments and updates of the SWPPP/WPCP (subject to the approval of the RE), implementation of the SWPPP/WPCP, inspection and maintenance of temporary control practices (BMPs), construction of permanent BMPs and completion of the annual certification for projects requiring an SWPPP. The Contractor will also be required to attend construction site stormwater training.
2.2.9.3 District Maintenance Divisions

The following positions within the Department are responsible for implementing the Maintenance Storm Water Management Program within the Districts:

- **Maintenance District Deputy District Directors (or Regional Managers):** The Maintenance Deputy District Directors (or Regional Manager) are responsible for the implementation of the policies, procedures, personnel and equipment of the District Maintenance Storm Water Management Program within their respective Districts. This includes ensuring compliance with all elements of the SWMP required to be implemented by the District Maintenance Divisions.

- **Maintenance Managers:** The Maintenance Managers direct maintenance activities within regions or programs of a District. Each region is subdivided into Maintenance Areas. The Maintenance Manager provides direct supervision to the Maintenance Superintendent within each region or program.

- **Maintenance Superintendents:** The Superintendents direct maintenance activities within Maintenance and provide direction to Maintenance Area Supervisors. Maintenance Areas contain multiple maintenance facilities. The Superintendents are responsible for ensuring that maintenance BMPs are implemented in their jurisdictions.

- **Maintenance Area Supervisors:** The Maintenance Area Supervisors are responsible for direct supervision of a maintenance crew. Supervisors provide on-the-job training for specific crew assignments, including compliance with water quality protection requirements. Supervisors have on-site responsibility for BMP implementation.

2.2.10 Storm Water Coordinators

All Districts have designated NPDES Storm Water Coordinators. Other functional unit Storm Water Coordinators exist in the Planning, Design, Construction and Maintenance Divisions. The role of the Storm Water Coordinators is to facilitate implementation of the Storm Water Management Program. However, they do not have line supervisory authority. The District NPDES Storm Water Coordinators serve as liaison with the Water Quality Program. Liaison activities include conducting meetings related to storm water management issues with the coordinators from each functional unit and with other MS4 permittees to discuss problems and concerns. Liaison activities also include regular communications with representatives of the RWQCB. The functional unit coordinators will assist the District Divisions in implementing the Division’s storm water management activities.

The District NPDES Storm Water Coordinators also provide coordination with the Department’s Headquarters functional programs and the Districts. This aspect of the matrix organization is shown in Figure 2-6.

In addition, the NPDES Storm Water Coordinators have the following responsibilities:

- Serving as the point of contact for regulatory inquiries regarding implementation of the Statewide SWMP.
- Receiving and responding to public inquires made to the Districts regarding storm water management issues.
- Coordinating, tracking and reporting the District’s response to illicit connections/illegal discharges (IC/IDs) and nonpermitted non-storm water discharges.
- Reporting instances of noncompliance to the RWQCBs unless otherwise indicated in the District Work Plan.

Figure 2-6: California Department of Transportation’s Storm Water Program Management Organizational Matrix

2.2.11 Encroachment Permits and Third-Party Activities

Public and private third party activities on the Department’s right-of-way are handled by the Division of Traffic Operations and Right of Way.

2.2.11.1 Traffic Operations

Any third parties (individuals, contractors, corporations, utilities, cities, counties and other government agencies) proposing to conduct any type of activity in the State right-of-way must
obtain an Encroachment Permit. Encroachment Permits are issued by the Division of Traffic Operations. Such activities may include utility construction, roadway approaches and driveways, landscaping, drainage facilities, filming, special events, signals and lighting, geophysical testing, noise barrier construction, material removal, sidewalks, airspace development, and contractor’s yards.

The cost of the project determines whether District Project Delivery or the Encroachment Permit Branch is responsible for oversight responsibilities. Encroachment Permits generally oversee the smaller projects of less than $1,000,000 while Design oversees larger encroachment projects. Encroachment Permit Inspectors inspect projects less than $300,000 while Construction Resident Engineers inspect projects greater than that amount.

An Encroachment Permit also requires compliance with the Department’s standard plans and specifications, including storm water requirements. As in the Construction program, construction contractors of permitted projects must prepare and implement a program to effectively control water pollution during the construction of their projects.

The California Highway Patrol (CHP) operates and maintains several commercial vehicle enforcement facilities (weigh stations) on the Department’s rights-of-way. Standard language outlining storm water requirements is inserted into agreements entered into between the Department and the CHP. These agreements are managed by the Headquarters Operations Program. The cleaning of commercial vehicle enforcement facilities is often accomplished by contractors. The CHP is responsible for ensuring that standard language outlining storm water requirements is inserted into agreements between the CHP and the contractors.

Discharges from storm drain systems owned or operated by the Department contain flows from sources other than facilities owned by the Department. Flows generated from facilities owned and operated by the Department are commonly referred to as “sole source” discharges. Other flows into the Department’s drainage systems include flows allowed by encroachment permits, flows allowed through leases or other similar documents for third-party facilities located in the Department’s rights-of-way, flows from adjacent properties outside the Department’s rights-of-way, flows from illicit discharges, and flows that must be accepted due to drainage laws. When these other flows are determined to be significant sources of pollutants, they are to be controlled through legal authorities or other appropriate BMPs identified in this SWMP. When such flows are not subject to NPDES permit regulations, the Department will instead report the flows to the appropriate RWQCB for appropriate action. Other flows may be directly controlled by the Department through its own legal authorities provided through conditions specified in encroachment permits where appropriate, leases, or other legally binding documents and through implementing the Department’s illicit connections BMP program identified in this SWMP. Other direct legal authorities may include monitoring and conducting inspections. Acknowledging that the Department does not have the traditional police powers associated with municipal government, the Department may meet the legal authority requirement by establishing interagency agreements with municipalities, special districts, or other agencies and establishing agreements with the California Highway Patrol or other state policing powers, etc. The Department may not have, or be able to acquire, adequate legal authority to control certain sources of pollutants (e.g., pesticides or brake pad dust) in other flows discharged to the Department.
Department’s storm drain system. When this occurs, the Department will develop and implement appropriate source-specific public education and outreach programs and include them in its Public Education Program described in Section 6.4 of this SWMP. The Department will adequately demonstrate, document, and report in the Annual Report such situations to the SWRCB and appropriate RWQCB.

2.2.11.2 Right-of-Way

The Division of Right-of-Way (ROW) administers properties associated with the development of transportation projects. ROW acquires, maintains and leases suitable properties to public and private third parties. ROW inspects these properties for compliance with water quality management practices.

Prior to construction of a transportation project, ROW may contract to have any facilities on the properties cleared, demolished, or relocated. This demolition is performed by contractors who are required to comply with the Department’s storm water permit and the substantive provisions of the CGP.

Airspace is defined as any area within operating State highway right-of-way that can safely accommodate a privately managed use, such as parking lots, self storage units, commercial businesses, light industry and cellular telephone towers. ROW executes airspace leases with third parties for these kinds of uses. Existing leases are contracts that include language requiring that the lessee comply with all applicable local, state, and federal rules, laws and regulations. In the future, newly executed airspace leases will include appropriate storm water language.

The Department reviewed all airspace leases by the required due date of January 1, 2002. The results of this review are documented in the April 2003 Annual Report.

Water Quality controls may include treatment, inspections, monitoring, sampling, and reporting to the Department. A summary of the Department’s progress on the review and revision of existing air space leases will be provided each year in the Annual Report.

As discussed in Section 2.6, illicit connections to the Department’s storm drainage system are considered encroachments, and the Department will use its legal authority to permit remove or otherwise correct these inappropriate encroachments.

2.3 COORDINATION WITH MUNICIPAL STORM WATER PERMITTEES

2.3.1 Coordination with Local Agencies

Coordination with municipalities on storm water management responsibilities and ensuring implementation of the Department’s existing municipal coordination policies is the responsibility of the District Directors. In many cases, discharges from the Department’s storm water drainage systems flow to storm water drainage systems owned and operated by municipalities (e.g., cities or counties) and vice versa. The municipalities and the Department are ultimately responsible for the quality of the discharges from their storm water drainage systems. To comply with its Permit, the Department will ensure pollutants are reduced or controlled in discharges from the...
Department’s storm water drainage systems into municipal systems. Permitted municipalities will do the same for discharges from their facilities into the Department’s storm drain system.

The Department coordinates storm water management activities with municipalities, flood control districts, RWQCBs and other entities as necessary or appropriate. Coordination is implemented through formal and informal discussions, meetings, agreements and procedures. The coordination takes place at three levels:

- **Ongoing Maintenance Activities:** Maintenance Area Supervisors coordinate with their municipal counterparts as part of their daily activities. Many of these activities include control or removal of materials that could potentially contaminate runoff.

- **Construction Projects:** District Design Division staff communicate with municipal planning staff and others on new projects to resolve storm water control and disposal issues.

- **Planning issues:** To identify opportunities for regional or shared storm water treatment controls and public education and outreach coordination and cooperation.

This coordination includes attending meetings, participating in special studies, identifying storm water run-on issues, reporting spills, etc. To facilitate regional compliance with MS4 permit requirements and to take advantage of opportunities for collaboration, the Department will share its Statewide SWMP with other agencies and, where appropriate, the District NPDES Storm Water Coordinator will become familiar with the storm water management plans prepared by other MS4 permittees.

Specific District-level coordination activities are described in the District Work Plans discussed in Section 9.2. Section 9.2 describes certification of the DWP by the District Director and tasks specific to coordination with municipalities on storm water matters including routine or case-by-case Caltrans municipal storm water management coordination.

### 2.3.1.1 General Coordination Meetings

Coordination meetings are conducted on a countywide, regional or watershed basis with most MS4 permittees throughout the state. In addition, the Department participates in the California Storm Water Quality Task Force (SWQTF). This participation includes serving on the Executive Committee and taking part in the various activities of the SWQTF. The frequency of coordination meetings varies, depending on the participants and local water quality needs.

Participation in these meetings provides the Department and the municipalities an opportunity to share information in the development and implementation of storm water management programs, including planning and design for capital and private development projects, construction activities, public education, IC/IDs and monitoring. These meetings also provide an opportunity for discussing noncompliance and/or project-specific issues that involve both the Department and the municipalities.

### 2.3.1.2 Special Coordination Meetings

Special meetings are conducted as necessary or appropriate by municipalities and the Department to coordinate implementation of water quality monitoring, public education,
inspection and enforcement activities and other specific storm water management program issues.

In some cases, Districts participate in supporting training activities or other special initiatives with other MS4 permittees, RWQCBs and others.

### 2.3.1.3 Cooperative Agreements

On an ongoing basis, the Department implements projects to improve or add to the state highway system and support facilities. When local agency facilities (including storm water drainage systems) are involved or otherwise impacted, the Department enters into project-specific cooperative agreements with the local counties and cities that outline both short- and long-term roles and responsibilities. These agreements address the responsibilities of the Department when discharging into municipal storm water drainage systems and the responsibilities of municipalities’ permittees when discharging into the Department’s storm water drainage systems.

### 2.3.2 Encroachment Permits for Municipalities

Similar agreements or contracts will be developed when local agencies build roads that are ultimately dedicated to the Department and when state highways are operated or maintained by municipalities. Individuals, corporations, utilities, cities, counties and other governmental agencies conduct a variety of activities within the Department’s highway rights-of-way. All agencies/developers proposing to conduct any activity within, under or over a Department highway right-of-way are required to obtain an encroachment permit. All encroachment permits issued will be conditioned to require implementation of all BMPs that would otherwise have been implemented if the Department were directly conducting these activities. The Department will inspect these activities to ensure compliance.

### 2.3.3 Information Sharing

#### 2.3.3.1 General Storm Water Information

The Department maintains a Web site [http://www.dot.ca.gov/hq/env/stormwater/index.htm](http://www.dot.ca.gov/hq/env/stormwater/index.htm) that provides information on the Statewide SWMP. In addition to general information on the Department’s program, this Web site presents information for use by other MS4 permittees under the following categories:

- Ongoing Department projects, such as:
  - Storm water research and monitoring studies;
  - Litter Management Program;
  - BMP retrofit pilot studies;
  - San Diego Water Quality Control Study; and
  - Compliance Program.
• Information on additional planned studies will be included as they are implemented.

• Continuing publications, such as:
  – Infolink (general information regarding the Permit);
  – Water Quality NewsFlash (weekly update from Water Quality Unit);
  – Maintenance bulletins;
  – Project delivery bulletins; and
  – Construction bulletins.

• Conferences/workshops (including information regarding storm water workshops held by the Department); and

• Water Quality Standards Database.

Location and information on Caltrans current construction projects are provided on a statewide map and maintained on the following website:
http://dot.ca.gov/hq/construc/consMap/conskml.php

2.3.2 California Department of Transportation’s Program Information

With the completion of the Statewide SWMP, the District Directors will send letters to MS4 permittees within their respective Districts announcing the adoption of the Permit and transmitting a copy of the Statewide SWMP. In addition, this letter will inform the MS4 permittees of the Department’s storm water Web site, identify the District NPDES Storm Water Coordinator, and describe the Department’s interest in communicating and collaborating with the MS4 permittees on water quality issues.

The Department, MS4 permittees and others share information on approaches and conclusions on different aspects of storm water programs on an ongoing basis. These programs include, but are not limited to, construction activities, public information, storm water monitoring and BMP technology.

On a case-by-case basis, the Department collaborates with MS4 permittees to identify and assess available resources to jointly implement common activities of their respective storm water management programs.

2.4 COORDINATION WITH RWQCBs

Although the Permit was issued by the SWRCB, the RWQCBs will be the primary agencies to carry out inspections and enforcement. The Department seeks to work closely with the RWQCBs. Coordination with RWQCBs is accomplished through several mechanisms, including:

• Annual reporting;

• Notification of noncompliance (notification and follow-up reports for reportable noncompliance as described in the plan for reporting noncompliance [Section 9.3]);
• Notification of spills and identification of IC/IDs;
• Development of District Work Plans; and
• Meetings.

The point of contact for the RWQCB is the District NPDES Storm Water Coordinator. In addition, the Department coordinates with the RWQCBs, SWRCB and EPA through participation in the SWQTF. In addition, the Department participates in watershed planning, as described in Section 7.3.3.

2.5 COORDINATION WITH THE PUBLIC

Public interface will occur through three primary mechanisms:

• **Public-initiated contact with the District offices regarding complaints, suggestions and requests:** Each District office has a widely publicized phone number. All public-initiated calls are directed to the District’s Public Affairs Office. Calls are screened, logged and routed to the appropriate party within the District office. Water quality related calls are directed to the District NPDES Storm Water Coordinator.

• **The Public review opportunity as part of the annual report preparation process:** Draft Statewide SWMP updates and draft annual reports are made available for a public comment period. Workshops on these documents are noticed and held in both Northern and Southern California. The Department responds to comments received as these documents are finalized for submittal to the SWRCB each April 1.

• **Public input on proposed project alternatives during the environmental evaluation process:** Typically, one or more public hearings are held for major highway projects.

2.6 LEGAL AUTHORITY

The California Streets and Highways Code gives the Department jurisdiction over and responsibility for designing, building and maintaining the California Highway System. Pursuant to Section 90 of the Streets and Highways Code, “The department shall have full possession and control of all state highways and all property and rights in property acquired for state highway purposes. The Department is authorized and directed to lay out and construct all state highways between the termini designated by law and on the locations as determined by the commission.”

Section 83 of the Streets and Highways Code states,

> “any public street or highway or portion thereof which is within the boundaries of a state highway, including a transferable highway adopted or designated as a state highway, shall constitute a part of the right-of-way of such state highway without compensation.

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1 Spill notification may take place through the procedures instituted by the California Office of Emergency Services (OES): initial notification goes to OES, which then notifies the appropriate RWQCB, Department of Fish & Game, and other concerned state agencies.
being paid therefore, and the department shall have jurisdiction there over and
responsibility for the maintenance thereof.”

The legislature gave the Department incidental powers under Section 92 of the Code. This
section states, “The Department may do any act necessary, convenient or proper for the
construction, improvement, maintenance or use of all highways which are under its jurisdiction,
possession or control.”

The Department possesses adequate legal authority to disconnect or prohibit point source illicit
connections to its storm drain systems pursuant to Streets and Highways Code §660, which
defines an encroachment as

“any tower, pole, pole line, pipe, pipe line, fence, billboard, stand or building, or any
structure, object of any kind or character not particularly mentioned in this section, or
special event, which is in, under, or over any portion of the highway...”

Thus, illicit connections to the Department’s storm drainage system are considered
encroachments. Streets and Highways Code §670 prohibits placing, changing or renewing an
encroachment without a permit. Any person placing an encroachment without the authority of a
permit is guilty of a misdemeanor. Generally, a permit granting an encroachment on a highway
constitutes a mere revocable license which may be withdrawn at will (People by and through the
Department of Public Works v. DiTomaso, 57 C.A. 2D 741).

Encroachment permits may also be conditioned to require compliance with storm water
regulations and the requirements of the Department’s program (see Section 2.2.9).

According to Streets and Highways Code §720, if any encroachment exists in, under or over any
state highway, the Department may require the removal of such encroachment. Notice shall be
given to the owner. The Department may immediately remove from any state highway any
encroachment that:

- Is not removed, or the removal of which is not commenced and thereafter diligently
  prosecuted, prior to the expiration of five days from and after the service of the notice;
- Obstructs or prevents the use of such highway by the public;
- Consists of refuse; or
- Is an advertising sign (Streets and Highways Code §721).

The Department may remove any encroachment on the failure of the owner to comply with a
notice or demand of the department and shall have an action to recover the expense of such
removal, costs and expenses of suit and $10 per day (Streets and Highways Code §722). If the
owner denies the existence of the encroachment or refuses to remove the encroachment, the
Department may commence, in any court of competent jurisdiction, an action to abate the
encroachment as a public nuisance (Streets and Highways Code §723). Any person owning,
controlling, or placing, or causing or suffering to exist, any encroachment within any state
highway after service of notice, in addition to any civil liability therefore, is guilty of a
misdemeanor (Streets and Highways Code §724).
Within the Business, Transportation and Housing Agency of California, the CHP is established under the California Vehicle Code §2100 et seq. The CHP has full responsibility and primary jurisdiction for the administration and enforcement of the laws on all toll highways and state highways constructed as freeway, including transit-related facilities located on or along the rights-of-way of those toll highways or freeways. City police officers and county sheriffs, while engaged primarily in general law enforcement duties, may incidentally enforce state and local traffic laws and ordinances on toll highways and state freeways within incorporated areas of the state. In any city having either a population in excess of 2,000,000 or an area of more than 300 square miles, city police officers shall have full responsibility and primary jurisdiction of the administrative and enforcement of those laws and ordinances, unless the city council of the city by resolution requests administration and enforcement of those laws by the commissioner of the CHP (Vehicle Code §2400).

The CHP may enforce those provisions relating to the transportation of hazardous waste found in Health and Safety Code Section 25160 et seq., which requires a manifest for the transport of hazardous waste. In addition, the CHP may enforce the provisions of the Hazardous Waste Haulers Act in Health and Safety Code Section 25167.1 et seq., which requires every transporter of hazardous waste to respond and pay for damages for environmental restoration, including restitution for the loss, damage or destruction of natural resources.

The CHP shall serve as the statewide information, assistance and notification coordinator for all hazardous substance spill incidents occurring on highways within the State of California (Vehicle Code §2453).

In addition to local antilitter ordinances, the Department relies on Sections 23112, 23113, 23114 and 23115 of the Vehicle Code as legal authority to prevent spills, dumping or disposal of materials on the highways and freeways under its jurisdiction.

- Section 23112 states:

  No person shall throw or deposit, nor shall the registered owner or the driver, if such owner is not then present in the vehicle, aid or abet in the throwing or depositing upon any highway any bottle, can, garbage, glass, nail, offal, paper, wire, any substance likely to injure or damage traffic using the highway, or any noisome, nauseous, or offensive matter of any kind.

  No person shall place, deposit, or dump, or cause to be placed, deposited, or dumped, any rocks, refuse, garbage, or dirt in or upon any highway, including any portion of the right-of-way thereof, without the consent of the state or local agency having jurisdiction over the highway.

- Section 23113 states:

  Any person who drops, dumps, deposits, places or throws, or causes or permits to be dropped, dumped, deposited, placed or thrown, upon any highway or street any material described in Section 23112 or in subdivision (d) of Section 23114 shall immediately remove the material or cause the material to be removed.

  If the person fails to comply with subdivision (a), the governmental agency responsible for the maintenance of the street or highway on which the material has been deposited may
remove the material and collect, by civil action, if necessary, the actual cost of the removal 
operation in addition to any other damages authorized by law from the person made 
responsible under subdivision (a).

- Section 23114 states (in pertinent part):

  No vehicle shall be driven or moved on any highway unless the vehicle is so constructed, 
  covered, or loaded as to prevent any of its contents or load other than clear water or feathers 
  from live birds from dropping, sifting, leaking, blowing, spilling, or otherwise escaping from 
  the vehicle.

- Section 23115 of the Vehicle Code states (in pertinent part):

  No vehicle loaded with garbage, swill, cans, bottles, waste papers, ashes, refuse, trash, or 
  rubbish, or any other noisome, nauseous, or offensive matter, or anything being transported 
  to a dump site for disposal shall be driven or moved upon any highway unless the load is 
  totally covered in a manner which will prevent the load or any part of the load from spilling 
  or falling from the vehicle.

The Department relies on the CHP and local police forces for enforcement of all local laws and 
ordinances, as outlined above. These local laws and ordinances protect the storm water drainage 
systems from illicit discharges and spills. The CHP, sheriffs and local police departments possess 
the appropriate legal authority to pursue and take enforcement actions against persons causing, or 
threatening to cause, illegal discharges. The Department possesses the authority to recover the 
costs associated with the cleanup and other activities resulting from illegal discharges.

The Department will control the contribution of pollutants in discharges of storm water from 
industrial sites and activities (including construction) located within Department-owned rights-
of-way to the waters of the United States as described in this Statewide SWMP.
SECTION THREE  

BMP IDENTIFICATION AND IMPLEMENTATION

3.1 OVERVIEW

This section describes how the Department identifies and implements BMPs. This section is organized as follows:

- Section 3.2 describes the BMP categories used by the Department.
- Section 3.3 describes the steps involved in adopting BMPs.
- Section 3.4 describes the BMP implementation process.

The process can be divided into two main components: (1) identifying, evaluating and approving the BMPs that are to be considered for the Department’s facilities (i.e., creating the BMP “tool box”) and (2) selecting specific BMPs from the toolbox for use on a particular site or facility.

3.2 BMPS

3.2.1 Background

BMPs are designed and implemented to reduce the discharge of pollutants from the Department’s storm drain system to the “maximum extent practicable” (MEP), and to control the discharge of pollutants from regulated construction projects by employing “best conventional technology” (BCT) and “best available technology” (BAT).

Additionally, if it is determined that the Department’s discharges are causing or contributing to an exceedance of an applicable water quality standard, and if waste load allocations (from TMDLs) are not in place, then the Department will implement control measures and other actions per Provision C of the Permit.

As used in this document, the term BMP refers to operational activities or physical controls that are applied to storm water and other runoff to reduce the discharge of pollutants. Accordingly, the term BMP refers to both structural and nonstructural controls that have direct effects on the release, transport or discharge of pollutants. This Statewide SWMP does not use the term BMP when referring to exclusively administrative activities or procedures, such as internal audits and inspections.

3.2.2 BMP Categories

Three general categories of BMPs have been identified for use in the Statewide SWMP:

Category I BMPs: Technology-based pollution prevention controls to meet the maximum extent practicable (MEP) requirements for designing and maintaining roadways and related facilities.

Group A: Maintenance BMPs

BMPs applicable to all maintenance operations (i.e., litter pickup, street sweeping, etc.)

Group B: Design pollution prevention BMPs
BMP Identification and Implementation

BMPs applicable to the design of new facilities or major renovations of existing facilities (i.e., permanent soil stabilization, ditch channel lining systems, etc.)

Category II BMPs: Controls to meet BCT/BAT requirements for construction projects that disturb 5 or more acres.

Category III BMPs: Treatment BMPs to meet MEP requirements.

Specific BMPs that have been evaluated for these categories are listed in Appendix C.

3.2.3 BMP Groups (Within Categories)

Each BMP category is further subdivided into the following groups:

- Approved: These BMPs have been approved by the Department for statewide implementation. Implementation is dependent on the site conditions and BMP applicability of deployment described as part of the BMP.

- Further Research Needed: Statewide implementation of BMPs in this grouping is deferred, unless noted otherwise, until further research is completed.

- Rejected: These BMPs have been evaluated and rejected.

3.3 BMP ADOPTION PROCEDURES

3.3.1 Overview

This section describes how the Department will identify, evaluate and approve BMPs for consideration into the Department’s activities and projects on a statewide basis. The SWMP provides a “BMP toolbox” that the Department’s personnel can draw upon when making implementation plans and decisions at a District-specific or site-specific level. The use of BMPs on a particular site is dependent on the “conditions of deployment,” which are specified as part of the description of the BMPs, and on the site-specific environment, including pollutants of concern in existing or new discharges and within the receiving water(s). The selection of BMPs for a specific construction site, section of roadway or maintenance facility is described in the Guidelines.

The evaluation criteria and the approved and rejected BMPs are presented in Appendix C. A listing of the BMP categories and the programs responsible for their implementation is shown in Table 3-1. Figure 3-1 provides a graphic summary of the BMP identification, evaluation and approval process. Approved BMPs can be rejected at any stage of this process based on the BMP evaluations performed.
### TABLE 3-1: BMP CATEGORIES AND RESPONSIBLE DIVISIONS

<table>
<thead>
<tr>
<th>BMP Category</th>
<th>Description</th>
<th>Responsible Division for BMP Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category IA</td>
<td>Maintenance BMPs: litter pickup, toxics control, street sweeping, etc.</td>
<td>Division of Maintenance</td>
</tr>
<tr>
<td>Category IB</td>
<td>Design Pollution Prevention BMPs: permanent soil stabilization systems, etc.</td>
<td>Division of Design</td>
</tr>
<tr>
<td>Category II</td>
<td>Construction Site BMPs: temporary runoff control</td>
<td>Division of Construction</td>
</tr>
<tr>
<td>Category III</td>
<td>Treatment BMPs: permanent treatment devices and facilities</td>
<td>Divisions of Design, Construction and Maintenance</td>
</tr>
</tbody>
</table>

Figure 3-1: BMP Identification, Evaluation, and Approval Process
The components of the BMP identification, evaluation and approval process are described in the following subsections. An important part of this process is the re-evaluation and improvement of existing approved BMPs. This re-evaluation process will be a primary responsibility of the SWATs, using feedback from Self-Audits, Field Compliance Reviews, and the Monitoring and Research Program (discussed in Sections 7 and 8).

3.3.2 BMP Identification, Evaluation and Approval Process

The BMP identification, evaluation and approval process consists of the following steps:

- Step 1 – BMP Research;
- Step 2 – Evaluation of Candidate BMPs (Including Re-Evaluation of Current BMPs); and
- Step 3 – Approval of BMPs for implementation, as appropriate.

These steps are described in the following paragraphs.

3.3.2.1 Step 1 – BMP Research

Potential new BMPs not currently used by the Department on a statewide basis will be described in the annual New Technology Report(s). These reports will consolidate information about practices and research by others. Pilot studies and other research conducted through the Monitoring and Research Program (Section 7) directly evaluating the effectiveness of new and existing BMPs is ongoing. The progress of this research will be reported in the Annual Report (Storm Water Treatment Technology Research Status Report). These reports, along with all reports from completed research, will be compiled and then forwarded to the SWATs for review and consideration.

3.3.2.2 Step 2 – Evaluation of Candidate BMPs (Including Re-Evaluation of Current BMPs)

As part of the general BMP evaluation process, function-based SWATs will evaluate the results of the Monitoring and Research Program and feedback from the Program Evaluation (Section 8) effort to identify opportunities for improving current BMPs (those that the Department is already using). This feedback will include information on BMP difficulties or inadequacies as well as improvements to the BMPs developed by field personnel. The ongoing Department self-assessment effort is described in more detail in Sections 7 and 8.

In addition to re-evaluating current BMPs, the SWATs will evaluate potential new BMPs drawn from the New Technology Report and other sources described in Step 1. The SWATs will use evaluation criteria appropriate for the BMP category (see Appendix C). As necessary, the Monitoring and Research Program will provide in-depth technical review of candidate BMPs through pilot projects or other applied research.

Within their assigned BMP categories, the SWATs have responsibility for recommending that a proposed or revised BMP be approved, proposed for field innovation, withheld for further research, or rejected.

BMPs that are judged by the SWATs to be promising but not yet ready for implementation will be referred to research. These would include BMPs for which effectiveness and/or reliability...
information is lacking or for which design or operational parameters are unavailable. These BMPs will be tested in a pilot program or subjected to other research prior to implementation. See Section 7 for more discussion of this effort.

3.3.2.3 Step 3 – Approval of BMPs for Implementation, as Appropriate

Headquarters Division Chiefs from Design, Construction, Maintenance, and Water Quality have the responsibility to evaluate and approve BMPs. The Division Chiefs can also reject a BMP either based on the initial evaluation of the BMP by the SWATs or based on the results of field compliance reviews after an approved BMP has been implemented. Criteria that can be used to reject BMPs include relative effectiveness, technical feasibility, cost/benefit analysis, and legal or institutional constraints. It is acknowledged that previously rejected BMPs could subsequently be reconsidered through the process should evaluation factors change or new data become available.

BMP Selection Report: The results of the BMP identification, evaluation and approval process are described in detail in Appendix C. This information constitutes the BMP Selection Report required by the Permit.

3.3.3 Public Review of BMP Adoption Process

The Department will annually solicit comments from interested parties and the public during the process of identifying, evaluating and approving BMPs. The Department will announce and make available the draft Annual Report, including the revised Statewide SWMP, which will include the BMP adoption analysis. Specific procedures are as outlined in Section 9.2.3.

3.4 BMP IMPLEMENTATION

The Design Project Engineer, the Construction Resident Engineer and the Maintenance Area Supervisors will evaluate, on a site-by-site basis, when and where to deploy the BMPs based on the selection factors in the Guidelines. The Project Engineer and the Resident Engineer will implement BMPs in accordance with Section 4. The Maintenance Area Supervisors will implement BMPs in accordance with Section 5.

BMPs for treatment will be considered both for incorporation into transportation improvement projects (new construction and major reconstruction) and to retrofit existing storm drain systems. These BMPs will be selected and implemented by the Design Project Engineer in accordance with Section 4.4.

As stated in Section 1.4, this SWMP encourages the Department to use innovative approaches to implementing BMPs presented in the SWMP and implementing new BMPs not yet addressed in this SWMP. For approved treatment BMPs, the Districts are to review proposed changes with the Department’s HQ prior to implementation.
SECTION FOUR  
Project Delivery Storm Water Management Program

SECTION 4  PROJECT DELIVERY STORM WATER MANAGEMENT PROGRAM

4.1 OVERVIEW

This section describes how the Department complies with Permit requirements by incorporating storm water management into the Department’s Project Development process. Within the Department, Project Delivery encompasses the activities of project planning, design and construction. Compliance will be accomplished by implementing the Project Development Storm Water Management Program described herein. This section is organized as follows:

- Section 4.2 describes the Project Delivery Storm Water Management Program responsibilities;
- Section 4.3 describes Design Pollution Prevention BMPs (Category IB);
- Section 4.4 describes Treatment BMPs (Category III).
- Section 4.5 describes Construction Site BMPs (Category II).
- Section 4.6 describes the Department’s approach to illicit connections and illegal discharges on construction sites.
- Section 4.7 describes the Department’s approach to address non-storm water discharges on construction sites.

Critical adjuncts to this section are Appendix C, which provides descriptions for the BMPs, and the Guidelines, which describe the implementation associated with each approved storm water management practice or BMP.

4.2 PROJECT DELIVERY STORM WATER MANAGEMENT PROGRAM RESPONSIBILITIES

4.2.1 Design Storm Water Management Program

The following positions within the Department are responsible for implementing the Design Storm Water Management Program within the Districts:

Design Deputy District Director (or Regional Manager): The Design Deputy District Directors (or Regional Managers) are responsible for the implementation of the policies, procedures and personnel of the Design Program within their respective Districts. This includes ensuring compliance with all elements of the Statewide SWMP required to be implemented by the District Design Division.

Project Engineer: The Project Engineer is responsible for the preparation of Project Study Reports and Project Reports during the “Project Approval/Environmental Documents” phase and PS&E documents (otherwise known as contract plans or bid documents) during the design phase. Where the re-use of soils that contain lead is proposed, the Project Engineer will ensure that written notification is provided to the RWQCB 30 days prior to advertisement for bids, as...
discussed in Section 4.3. The Project Engineer determines whether a SWPPP or a WPCP is
required for the construction project and incorporates appropriate permanent and temporary
BMPs into the project.

When feasible, the Project Engineer incorporates treatment control practices into project plans
and specifications. The Project Engineer may also include specific temporary control practices
(including contaminated soil management BMPs) into the PS&ES. In addition, the Project
Engineer is responsible for assembling information necessary to assist the Resident Engineer and
contractor in preparing and reviewing the SWPPP/WPCP for inclusion in the Resident
Engineer’s pending file. The Project Engineer, with the assistance of the Design Stormwater
Coordinator, determines the project Risk Level.

The District is responsible for ensuring that a Notice of Construction is submitted to the
appropriate RWQCB at least 30 days prior to the start of construction for projects that require an
SWPPP. In addition, the District is responsible for ensuring that a Notice of Completion is
submitted to the RWQCB upon completion of construction and stabilization of the site. These
responsibilities may be carried out by the Design Division or the Construction Division,
depending on the District.

4.2.2 Construction Storm Water Management Program

The following positions within the Department are responsible for implementing the
Construction Storm Water Management Program within the Districts:

Construction Deputy District Director (or Regional Manager): The Construction Deputy
District Directors (or Regional Managers) are responsible for the implementation of the policies,
procedures, personnel and equipment of the District construction program within their respective
Districts. This includes ensuring compliance with all elements of the Statewide SWMP required
to be implemented by the District Construction Division. The Construction Deputy District
Director (or Regional Manager) is responsible for ensuring that the training program is
implemented (per Section 6 of this SWMP), the construction self audit program is implemented
(per Section 8 of this SWMP) and that the inspection tracking and construction site inventory
programs are implemented (per Section 8 of this SWMP).

Resident Engineer: The RE is the Department’s representative charged with administering
construction contracts and responsible for ensuring that storm water controls are implemented on
construction sites. The RE makes decisions regarding the acceptability of material furnished and
work performed and exercises contractual authority to direct the contractor. The RE should
impose sanctions if the contractor fails to take appropriate actions specified in the contract to
correct deficiencies. The RE shall also ensure that inspectors and the contractor attend
construction site stormwater training as directed by the Construction Deputy District Director (or
Regional Manager), and shall cooperate with the self-audit program (SWMP Section 8).

The RE reviews and approves the WPCP or SWPPP and indicates any required changes to the
contractor. The RE must approve the WPCP or SWPPP prior to the commencement of soil-
disturbing activities. Amendments to the WPCP or SWPPP must also be approved by the RE.
The RE periodically inspects the construction site for proper installation and maintenance of
BMPs and overall implementation of the approved WPCP or SWPPP. The RE also ensures that
the contractor is practicing self-monitoring as required in the contract. The RE is responsible for ensuring annual certification of compliance for projects that require a SWPPP is completed.

Additional duties of the RE include maintaining SWPPP or WPCP documentation; inspecting for, reporting, and, under certain circumstances, directing the cleanup and/or removal of illegally dumped material, spills or discharges through illicit connections within the limits of the construction site and forwarding noncompliance reports to the Construction Storm Water Coordinator.

**Contractor:** The contractor is responsible for carrying out the contract per the plans, specifications and all applicable permits. The contract requires a contractor to develop and implement elements of the construction program subject to the review and approval of the RE. These activities include preparation, amendments and updates of the SWPPP/WPCP (subject to the approval of the RE), implementation of the SWPPP/WPCP, inspection and maintenance of construction site BMPs, construction of permanent BMPs and completion of the annual certification for projects requiring an SWPPP. The contractor will also be required to attend construction site stormwater training.

### 4.2.2.1 Construction Site Enforcement Program

Caltrans has developed a Construction Site Enforcement Program to ensure that the provisions of the Construction General Permit are enforced for all construction sites requiring coverage under the Order.

The Stormwater Program Enforcement Response Plan (ERP) defines the typical lines of authority from the Director to the RE for construction projects (see Section 8 and Appendix, Enforcement Response Program). The Construction program involves the activities, authority, and protocols for the quality control by the construction project Contractor, quality assurance by the RE, quality assurance by the District Stormwater Coordinator, and the independent assurance administered by DEA through a third party. The Quality Control, Quality Assurance, and Independent Quality Assurance Team procedures follow the same response plan process for the self-audit and escalation of resolution through an Enforcement Response Program (see Appendix A) which could involve, as needed, the four levels of authority from the Construction Manager to the Deputy District Director, the District Director, and ultimately the Department (Caltrans) Director for enforcement. Corrective action(s) for program enforcement could include any of the following: focused training, administrative correction (e.g., BMP installation, resource allocation), and or programmatic corrections (e.g., guidance improvements, policies, and directives). The responses and completion of actions are tracked by the DEA with oversight by the CEE. Resolutions of critical issues are elevated through the Enforcement Response program, the Independent Quality Assurance Program, and through the WQMAT. Enforcement actions and resolutions are expected to be resolved in a timely manner.

Enforcement at construction sites is carried out primarily by the RE, with support from the Assistant RE, Inspector, Structures Representative, Construction Stormwater Coordinator and the Independent Assurance Team.

The RE has sufficient contractual tools supported in the Standard Special Provisions to enforce construction site stormwater regulations on a progressive basis and depending on the nature and
severity of the nonconformance. The following are the primary tools used for enforcement by the RE and other Caltrans personnel as described in the Enforcement Guidance Manual.

- Verbal warning with letter. Outlines the corrective actions needed as well as the potential penalties for non-compliance
- Withhold payment for incomplete pay items.
- Withhold payment of up to 25% of the monthly contract payment for stormwater non-compliance
- Removal of person or contractor from the job site for nonconformance with stormwater regulation
- Suspension of work
- If regulatory fines are imposed, the RE can withhold progress payments up to the fine amount.
- Deduction from contract. The RE can deduct the amount of regulatory fines from the contract amount.

4.3 DESIGN POLLUTION PREVENTION BMPS (CATEGORY IB)

4.3.1 Incorporation of Design BMPS into Projects

As discussed in Section 3, during the process of planning and design of all new facilities and reconstruction or expansion of existing facilities, the Project Engineer considers and, as appropriate, incorporates Design Pollution Prevention BMPS. These BMPS are standard technology-based, non-treatment controls selected to reduce pollutant discharges to the MEP requirements. The evaluation and approval of BMPS to be considered on a project-by-project basis statewide was accomplished through the process summarized in Section 3.2 (and defined in detail in Appendix C). Table 4-1 lists the Design Pollution Prevention BMPS that have been selected by the Department for project-specific consideration statewide. Detailed descriptions and guidance regarding implementation of these BMPS are provided in Appendix C and the Guidelines.

<table>
<thead>
<tr>
<th>TABLE 4-1: DESIGN POLLUTION PREVENTION BMPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration of Downstream Effects Related to Potentially Increased Flow</td>
</tr>
<tr>
<td>Preservation of Existing Vegetation</td>
</tr>
<tr>
<td>Concentrated Flow Conveyance Systems</td>
</tr>
<tr>
<td>Ditches, Berms, Dikes and Swales</td>
</tr>
<tr>
<td>Overside Drains</td>
</tr>
<tr>
<td>Flared Culvert End Sections</td>
</tr>
<tr>
<td>Outlet Protection/Velocity Dissipation Devices</td>
</tr>
<tr>
<td>Slope/Surface Protection Systems</td>
</tr>
<tr>
<td>Vegetated Surfaces</td>
</tr>
<tr>
<td>Hard Surfaces</td>
</tr>
</tbody>
</table>
Project-specific BMP consideration is an iterative process that begins with initial project planning and scoping activities. As the project moves into detailed design, the Department revisits the BMP consideration process and detailed BMP selection and design commences together with detailed design of the highway and drainage facilities.

During the project delivery process, expected storm water run-on to the project site will be calculated and provided to the RE prior to construction so that appropriate control measures can be implemented to convey concentrated flows around or through the site in a non-erodible fashion. To determine run-on, the tributary drainage area will be examined and evaluated to determine the quantities and locations where run-on can be expected to enter the project area.

New construction may have an effect on downstream channel stability through changes in the rate and volume of runoff, the sediment load due to changes in the land surface, and other hydraulic changes from stream encroachments, crossings or realignment. The peak flow rate, runoff velocities, and erosive characteristics of the soils in the area will be assessed with regard to downstream watercourses to determine potential impacts.

During the design of both new and reconstructed facilities, the Department often incorporates additional surface paving as needed to enhance the operational safety and functionality of the facility. Total paved area and impervious surfaces should be kept to a practical minimum to reduce project costs and to reduce total and peak runoff discharges.

Where an increase in paved surfacing leads to an increase in total or peak runoff discharges, a thorough evaluation is performed to determine if any adverse effects will result. If increased runoff will result in an increased potential for downstream effects in channels, the Department will consider the following:

- Modifications to channel (both natural and man-made) lining materials, including vegetation, geotextile mats, rock and rip-rap;
- Energy dissipation devices at culvert outlets;
- Smoothing the transition between culvert outlets/headwalls/wingwalls and channels to reduce turbulence and scour; and
- Incorporating retention or detention facilities to reduce peak discharges.

The Department will implement appropriate reasonable measures in an effort to ensure that runoff from the Department’s facilities will not significantly increase downstream effects.

In new construction and reconstruction of facilities, the Department preserves existing vegetation during the construction of the project that is providing erosion and sediment control benefits to the maximum extent feasible. This is described in the Preservation of Existing Vegetation BMP presented in Section 3 of the Guidelines.

To maximize water quality benefits, the Department is committed to maximizing the use of vegetation. The Department shall accomplish this by:

- Preserving existing vegetation as appropriate;
- Incorporating vegetated areas such as Design Pollution Prevention BMPs; and
Keeping total paved area and impervious ground cover to a practical minimum.

The Department also designs vegetative surfaces to address stabilization of completed slope/surface areas to prevent erosion from storm water and non-storm water runoff. In designing vegetative systems for these purposes, the Department’s Design Program staff will conduct appropriate investigations to consider factors to provide a long-term sustainable environment for these vegetative systems. These factors may include soil type and condition; site topography; climate and season; types of native and adapted vegetation appropriate and suited to the site; and maintenance. This is described in the Vegetated Surfaces BMP presented in Section 3.3.4 of the Guidelines.

To help ensure that the Department is meeting its goals to incorporate Design Pollution Prevention BMPs into its projects, the Department will provide opportunities for comment from RWQCB staff. These opportunities shall include:

- Meetings with the RWQCB during the project design phase;
- Opportunities for RWQCB and SWRCB staff to attend Department training;
- A summary of the deployment of Design Pollution Prevention BMPs implemented within projects shall be included within the Annual Report; and
- Opportunities for the RWQCB to review Storm Water Data Reports. These reports document the incorporation of BMPs and are included in each project file.

Upon completion of the project, the Department’s Division of Maintenance will assume responsibility and implement maintenance BMPs. Vegetation maintenance is discussed in Section 2.19 of the Guidelines.

Project and site conditions may allow implementation of enhanced permanent pollution prevention management practices that go beyond those set forth in Table 4-1, described in Appendix C and detailed in the Guidelines. The Department will continue to encourage experimentation and innovation on deploying such measures to minimize pollution. Feedback from the implementation of innovative measures is gathered for analysis and reporting in the Annual Report process including updating the SWMP and Guidelines as appropriate. Through feedback stemming from these enhanced efforts, the Department expects that the statewide permanent pollution prevention management practices identified herein will continue to evolve and improve in their effectiveness in managing the quality of discharges from the Department’s facilities.

**Alternative Highway and Storm Drainage Design Standards**

Current highway and storm drainage design standards hinder or prohibit the Department from implementing some BMPs due to safety or access concerns. To address this, the Department will conduct a research study (Appendix C.3.3) to investigate alternative highway and storm drainage design standards for new, major reconstruction and retrofit projects. Design alternatives considered in the study will address but not be limited to: (1) improving maintenance safety and access to clean storm drain inlets located in left lanes and medians (2) routing storm water runoff from areas that are not accessible to storm water BMPs, and (3) location and design of inlets to...
reduce concern of flooding associated with some BMPs. The Department will complete its study by January 1, 2003, and will submit a technical report of its findings, subject to the approval of the Executive Director of the SWRCB, in the April 1, 2003, Annual Report. Progress reports on the study are being submitted in each Annual Report until the final report is submitted.

**Fueling Island and Activities**

In 1997, the California Storm Water Quality Task Force created a work group that consisted of representatives from permitted municipalities and the petroleum industry to develop and publish guidelines that recommended BMPs for retail gasoline outlets. Some of the recommended BMPs involve structural or engineered changes to fueling islands. The Department evaluated the applicability of the structural and engineered BMPs in the guidelines and is developing appropriate design standards and specifications for future new or major reconstructed fueling islands at the Department’s permanent maintenance facilities. When appropriate, the Department will consider retrofit opportunities for existing fueling islands. Progress on this review and development of standards will be reported in the Annual Report.

### 4.3.4 Re-use of 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. The Department will provide written notification to the RWQCB at least 30 days prior to advertisement for bids of projects that involve soils subject to this variance. This notification period will allow a determination by the RWQCB(s) of the need for development of Waste Discharge Requirements (WDRs) or written conditional approvals by RWQCB staff. When WDRs are necessary, the Department will submit the appropriate application forms and documents and will not implement any uses of lead contaminated soils, including stockpiling of such soils, until the WDRs are issued by the appropriate RWQCB. Where the re-use of soils that contain lead is proposed, appropriate contaminated soil management BMPs will be included in the PS&ES-

### 4.4 TREATMENT BMPS (CATEGORY III)

Where there is, or is proposed to be, a storm drain system discharging directly or indirectly to a surface water, the treatment BMPs listed in Table 4-2 will be considered. Once a BMP is approved for statewide use, it will be considered in all proposed new construction and major reconstruction projects. This applies to both improvement projects and existing discharges.

<table>
<thead>
<tr>
<th>TABLE 4-2: APPROVED TREATMENT BMPS (CATEGORY III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biofiltration: Strips/Swales</td>
</tr>
<tr>
<td>Infiltration Basins</td>
</tr>
<tr>
<td>Detention Devices</td>
</tr>
<tr>
<td>Traction Sand Traps</td>
</tr>
<tr>
<td>Dry Weather Flow Diversion</td>
</tr>
</tbody>
</table>
Project-specific BMP consideration is an iterative process that begins with initial project planning and scoping activities. As the project moves into detailed design, the Department revisits the BMP consideration process and detailed BMP selection and design commences together with detailed design of the highway and drainage facilities. The approved treatment BMPs listed in Table 4-2 are considered to be technically and fiscally feasible. The Department’s experience has found these BMPs to be constructible, maintainable, and effective at removing pollutants to the maximum extent practicable.

To help ensure that the Department is meeting its goals to incorporate treatment BMPs into its projects, the Department will provide opportunities for comment from the RWQCB staff. These opportunities shall include:

- Meetings with the RWQCB during the project design phase;
- Opportunities for SWRCB and RWQCB staff to attend Department training;
- A summary of the deployment of treatment BMPs implemented within projects in the Annual Report; and
- Opportunities for RWQCB staff to review Storm Water Data Reports. These reports document the incorporation of BMPs and are included in each project file.

### 4.4.1 New Construction and Major Reconstruction Projects

For new construction and major reconstruction projects, the Department considers treatment BMPs by integrating the SWMP into the Department’s existing project delivery process that begins with project feasibility studies and ends when construction is complete. At the present time, the Department has many projects in various phases of project delivery, and how the Department will implement treatment BMPs into new construction and major reconstruction program will vary depending on the phase of a project. The process by which the Department will implement treatment BMPs into the project delivery process is summarized in Table 4-3. Except for categories C.1.a, D.1 and D.2 described in Table 4-3, the Department will notify the appropriate RWQCB during the planning or design stages of a new construction or major reconstruction project to provide RWQCB staff an opportunity to meet and discuss storm water quality issues and design pollution prevention and treatment BMPs for the proposed project. Projects in Categories C.1.a, D.1 and D.2 described in Table 4-3 are projects that will be tagged as high priority retrofit projects. For these projects, the Department will consult with the RWQCB within 180 days after the completion of construction to discuss storm water quality issues and design pollution prevention and treatment BMPs for the proposed project.

For all categories of project delivery described in Table 4-3, the Department will:

- Maximize vegetation-covered soil areas of a project.
- Evaluate treatment BMPs that may be incorporated into a project. In this evaluation the Department at a minimum will:
Evaluate the potential impacts to downstream hydrology and aquatic life and habitat that could be caused by the project (can reference environmental documents if needed).

Evaluate and consider approved design pollution prevention BMPs for all projects determined to have the potential to cause downstream impacts.

Evaluate and consider approved treatment BMPs at each project based on site-by-site conditions.

Document the feasible treatment opportunities of each approved BMP for every project.

Incorporate the appropriate approved treatment BMPs into the project.

For all project categories described in Table 4-3, when the Department has rejected all of the five approved BMPs listed in Table 4-2 for a specific project, the Department will document its findings in a technical report submitted to the RWQCB:

- At a minimum **180 days** prior to the start of construction for all project categories except categories C.1.a, D.1 and D.2
- **Within 90 days** subsequent to meeting with the RWQCB for project categories C.1.a, D.1 and D.2

During the Annual Report review process, the Department will evaluate the applicability of Categories B, C and D listed in Table 4-3 and revise or eliminate categories as appropriate. As part of its Annual Report, the Department will provide a summary of the new construction and major reconstruction projects and high priority retrofit projects initiated during the reporting period that will include a description of the permanent and treatment BMPs implemented in the project.

**TABLE 4-3: PHASES OF PROJECT DELIVERY FOR NEW CONSTRUCTION AND MAJOR RECONSTRUCTION PROJECTS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Project Delivery Status</th>
<th>Process to Incorporate Approved Treatment BMPs</th>
<th>How Approved BMPs are Addressed and Funded</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Beginning of Project Delivery Process prior to approval of the PSR</td>
<td>Storm water quality issues will be evaluated and treatment BMPs considered during the project alternatives and work plan development.</td>
<td>Cost of treatment BMPs will be programmed into the project.</td>
</tr>
<tr>
<td>B</td>
<td>PSR approved but Environmental Documents are not final</td>
<td>Treatment BMPs will be evaluated and where feasible, incorporated into a project’s design and addressed in the environmental documents.</td>
<td>Will incorporate BMPs and seek funding from the CTC. The Department will report to the SWRCB when the CTC has rejected the Department’s request for funding.</td>
</tr>
<tr>
<td>Category</td>
<td>Project Delivery Status</td>
<td>Process to Incorporate Approved Treatment BMPs</td>
<td>How Approved BMPs are Addressed and Funded</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>C</td>
<td>Environmental documents final</td>
<td>Environmental documents are not reopened for any reason.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment BMPs can be incorporated into project without needing the environmental documents to be reopened.</td>
<td>Will incorporate BMPs and seek funding from the CTC. The Department will report to the SWRCB when the CTC has rejected the Department’s request for funding.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment BMPs cannot be incorporated into project without needing the environmental documents to be reopened.</td>
<td>Project will be tagged for high priority retrofit to incorporate BMPs. Will seek funding from the CTC. The Department will report to the SWRCB when the CTC has rejected the Department’s request for funding.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Environmental documents are reopened for some other reason other than storm water.</td>
<td>Notify RWQCB; follow process identified in Category B above.</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Environmental documents final, design complete and project in the construction phase of project delivery</td>
<td>Project construction is not scheduled within 180 days (to be established with the Department).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment BMPs can be incorporated into project without needing the environmental documents to be reopened.</td>
<td>Will incorporate BMPs and seek funding from the CTC. The Department will report to the SWRCB when the CTC has rejected the Department’s request for funding.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment BMPs cannot be incorporated into project without needing the environmental documents to be reopened.</td>
<td>Project will be tagged for high priority retrofit to incorporate treatment BMPs. Will seek funding from the CTC. The Department will report to the SWRCB when the CTC has rejected the Department’s request for funding.</td>
<td></td>
</tr>
</tbody>
</table>
### 4.4.2 Retrofit Opportunities

Provision F.4 of the Permit requires that the Department shall seek opportunities to retrofit its storm water drainage system for water quality improvements for systems in urban areas subject to a MS4 permit whenever a section of the Department’s right-of-way undergoes significant construction or reconstruction, and in other instances in which retrofit is recommended by the RWQCB. When considering projects for retrofit opportunities, the Department will:

- Undertake an inventory of all existing drainage pipe or collection ditch locations discharging into a receiving water or a downstream storm drain system owned by others in the area of the significant construction and reconstruction area;
- Consider impacts to stream hydrology and aquatic life and habitat resulting from the construction of and/or discharges from existing Department facilities;
- Determine the feasibility of design pollution prevention and approved treatment BMPs; and
- Request that the appropriate funding authorities consider allocating funds to install design pollution prevention or approved treatment BMPs when such BMPs are determined to be feasible.

A summary of the retrofit projects implemented by the Department during the reporting period will be reported in the Annual Report. The summary will include the site location, the date the project was completed, a description of the BMP(s) implemented, why the particular BMP was selected, and a brief description of the characteristics of the drainage area being served by the retrofit BMP(s).

Procedures for determining which treatment BMPs should be considered are described in Appendix C and Section 5 of the Guidelines. Guidance determining the volume of water to treat is presented in Appendix C and Section 5 of the Guidelines.

### 4.4.3 Infiltration Devices

The Department will adequately evaluate the potential impacts to groundwater quality that could be caused by implementing BMPs that result in runoff being ultimately discharged to groundwaters of the State, i.e., infiltration devices. To implement this, the Department will work cooperatively with the appropriate RWQCB and local agency to address groundwater quality concerns for each site being considered for groundwater infiltration devices. Infiltration devices
will automatically be eliminated from further consideration in areas with known groundwater quality concerns or in areas where infiltration is prohibited by the RWQCB or local agency.

### 4.4.4 Vegetated Treatment BMPs

To maximize water quality benefits, the Department is committed to the use of vegetated treatment BMPs. For all new construction, major reconstruction, and retrofit projects, the Department shall accomplish this by:

- Incorporating vegetated strips and swales designed as treatment BMPs as appropriate; and
- Implementing operation and maintenance procedures established specifically for vegetated treatment BMPs (Section 5.5.1).

Design engineers shall use the Water Quality Practice Guidelines and other Department guidance documents to determine the appropriate use of vegetated treatment BMPs. Decisions regarding the incorporation of vegetation within each project shall be documented in the project Storm Water Data Report. The design engineers shall consult other functional units to ensure that safety and vegetation sustainability and maintenance issues are addressed. The Department shall provide opportunities for comment from RWQCB staff in accordance with Sections 4.3.1 and 4.4.

The Annual Report will provide a summary of the vegetated treatment BMPs implemented within projects during the reporting period. Reasons why vegetated treatment BMPs were not used are to be documented in the project files.

### 4.5 Construction Site BMPS (Category II)

Table 4-4 is a matrix of the construction site BMPs (Category II) that the Department will implement, as appropriate, on construction sites. The temporary control practices are consistent with the BMPs and control practices required under the State of California NPDES General Permit for Storm Water Discharges Associated with Construction Activity, and are intended to achieve compliance with the requirements of the Permit. The Permit specifies minimum BMPs based on the Risk Level of the project. The BMPs in Table 4-4 are consistent with the minimum BMP requirements in the Permit. The selected BMPs are directed at reducing pollutants in storm water discharges and eliminating non-storm water discharges. The selection of BMPs is accomplished through an evaluation process summarized in Section 3.2 and described in detail in Appendix C. Detailed descriptions and guidance regarding implementation of these BMPs are provided in Appendix C and the Guidelines. As described in Section 2.2.9, third parties conducting construction activities are required to implement BMPs comparable to those required of the Department.

At least 30 days prior to the start of construction, the Department will submit a Notice of Construction to the appropriate RWQCB for all construction projects that require an SWPPP to be prepared for the site. SWPPPs shall be prepared in accordance with the requirements set forth in the State of California NPDES General Permit for Storm Waters Discharges Associated With Construction Activity (General Permit). WPCPs must be prepared for all construction projects...
that do not require the preparation of an SWPPP. The SWPPP or WPCP shall be approved by the RE prior to commencement of soil-disturbing activities.

The Department implements storm water pollution management on construction sites year-round. The temporary control practices deployed on construction sites will be regularly inspected in accordance with Section 4.2 of the Guidelines, and improperly installed or damaged practices shall be corrected immediately, or by a later date and time, if requested by the Contractor and approved by the RE in writing, but not later than the onset of subsequent rain events.

For projects that require an SWPPP, the Department will submit a Notice of Completion to the appropriate RWQCB when construction is complete and when the construction site is stabilized. In accordance with the General Permit, a site is stabilized when a uniform vegetative cover with 70% of the native background vegetative coverage has been established or equivalent stabilization measures have been employed.

The individual BMPs designated by an “X” in Table 4-4 as being applicable to a particular typical construction activity, will not necessarily be appropriate for all projects involving the noted activity. For example, not all projects will have on-site vehicle fueling and maintenance operations; however, those that do will be required to conduct those operations in a manner consistent with the intent of the BMP description contained in Appendix D and BMP implementation detailed in the Guidelines.

Project and site conditions may allow implementation of enhanced temporary construction pollution management practices that go beyond those set forth in Table 4-4, described in Appendix D, and detailed in the Guidelines. The Department will continue to encourage experimentation and innovation on deploying such measures to minimize pollution. Information will be gathered from the use of innovative measures and analyzed and reported in the Annual Report process. Through feedback stemming from these enhanced efforts, the Department expects that the statewide temporary construction management practices identified herein will continue to evolve and improve in their effectiveness in managing the quality of storm water discharges from the Department’s facilities.

On September 2, 2009, the State Water Resources Control Board issued a new General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ). The new Order has substantially different requirements than the Order (1999) it replaces. Caltrans has revised its guidance to be consistent with the requirements of the new Order. Table 4-5 provides a summary of the changes between the new Order and the previous Order.
### TABLE 4-4: CONSTRUCTION SITE BMPS (CATEGORY II) FOR TYPICAL HIGHWAY CONSTRUCTION ACTIVITIES

<table>
<thead>
<tr>
<th>Best Management Practices</th>
<th>Typical Highway Construction Activities</th>
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<td><strong>Temporary Sediment Control</strong></td>
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<td>Sandbag Barrier</td>
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<td>Straw Bale Barrier</td>
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<td>Fiber Rolls</td>
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<td>Sediment Basin</td>
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<td><strong>Temporary Soil Stabilization</strong></td>
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<td>Hydraulic Mulch</td>
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<td>Hydroseeding</td>
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<td>Soil Binders</td>
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<td>Straw Mulch</td>
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<td>Geotextiles, Mats/Plastic Covers and Erosion Control Blankets</td>
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<td><strong>Scheduling</strong></td>
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### Typical Highway Construction Activities

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Typical Highway Construction Activities

| Sanitary/Septic Waste Management | X X X X X X X X X X X X X X X |
| Liquid Waste Management | X X X X X X X X X X X X X X X |
| **Materials Handling** | |
| Material Delivery and Storage | X X X X X X X X X X X X X X X |
| Material Use | X X X X X X X X X X X X X X X |
| **Best Management Practices (cont’d)** | |
| **Vehicle and Equipment Operations** | |
| Vehicle and Equipment Cleaning | X X X X X X X X X X X X X X X |
| Vehicle and Equipment Fueling | X X X X X X X X X X X X X X X |
| Vehicle and Equipment Maintenance | X X X X X X X X X X X X X X X |
| **Paving Operations** | |
| Stockpile Management | X X X X X X X X X |
| Water Conservation Practices | X X X X X X X X X X X X X X X |
| Potable Water/Irrigation | |
| Dewatering Operations | X X X X X X X X X X X X X X X |
| Illicit Connection/Illegal Discharge Detection and Reporting | X X X X X X X X X X X X X X X |
| Storm Drain Inlet Protection* | X X X X X X X X X X X X X X X |
| Stabilized Construction Entrance/Exit * | X X X X X X X X X X X X X X X |

**Notes:**
- BMP may be applicable to activity
- See Section B.4.3

California Department of Transportation
Statewide Storm Water Management Plan

4-16
<table>
<thead>
<tr>
<th>Administrative Tasks</th>
<th>New CGP</th>
<th>Risk 2</th>
<th>Risk 3</th>
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<tr>
<td>• NOC</td>
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<td>BMP Implementation</td>
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</table>
| • Implement BMPs according to site-specific SWPPP | • Cover stockpiled materials | • Risk Level 1 requirements and:
| • Cover stockpiled materials | • Store chemicals in watertight containers | • Document all good housekeeping BMPs in SWPPP |
| • Store chemicals in watertight containers | • Implement track-out BMPs | • Implement erosion and sediment controls in active areas of construction |
| • Implement track-out BMPs | • No rinse or wash materials on to impervious surfaces | • Apply sediment controls along toe, top and face of slope per permit |
| • No rinse or wash materials on to impervious surfaces | • Contain portable toilets | • Limit site ingress and egress to locations with tracking controls |
| • Contain portable toilets | • Cover waste containers at end of day and before rain | |
| • Cover waste containers at end of day and before rain | • Watertight concrete wash-out areas | • Risk Level 2 requirements and:
| • Watertight concrete wash-out areas | • Discontinue application of erodible landscape materials 2 days prior to rain | • Inlet protection and perimeter controls maintained and protected. |
| • Discontinue application of erodible landscape materials 2 days prior to rain | • Store landscape material on palettes and cover | • Implement additional controls at the request of the Board |
| | • Effect repairs within 72 hrs | | |
### Project Delivery Storm Water Management Program

#### Table: Risk Assessment and Monitoring Requirements

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<th>1999 CGP</th>
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<td>• Effluent: NAL for pH and turbidity</td>
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<td>monitoring required</td>
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<td>• Annual Certification of</td>
<td>• Annual Report</td>
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<td>compliance</td>
<td>• NAL Exceedance Report, if required by</td>
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<td><strong>Enforcement Triggers</strong></td>
<td>• NAL Exceedance data</td>
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<td>• Compliance with water</td>
<td>• NEL Violation</td>
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<td>quality standards and</td>
<td>• Potential for Mandatory Minimum Penalties</td>
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<td>other compliance</td>
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<td>activities</td>
<td>• &quot;Any permit noncompliance constitutes a</td>
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<td>• &quot;Any permit noncompliance</td>
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<td>constitutes a violation</td>
<td>Porter Cologne Water Quality Control Act</td>
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<td>of the Clean Water Act</td>
<td>and is grounds for enforcement and/or</td>
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<td>and the Porter Cologne</td>
<td>removal from General Permit Coverage.</td>
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<td>Water Quality Control Act</td>
<td>• Discharge of any debris</td>
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<td>and is grounds for</td>
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**California Department of Transportation**  
Statewide Storm Water Management Plan  
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<th>1999 CGP</th>
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<td>Post Construction has requirements to implement post-construction</td>
<td>Post Construction has requirements to comply with post-construction</td>
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<td>controls as proposed in the site-specific SWPPP</td>
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<td>Caltrans permit and SWMP requirements</td>
<td>Caltrans permit and SWMP requirements</td>
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<td>SWPPP Requirements</td>
<td>SWPPP Requirements</td>
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<td>SWPPP Requirements</td>
<td>SWPPP Requirements</td>
</tr>
<tr>
<td>• Caltrans 24-hour Training</td>
<td>• QSP/QSD Training</td>
</tr>
<tr>
<td>• Training documentation required in SWPPP but no formal requirements</td>
<td>• QSP/QSD Training</td>
</tr>
<tr>
<td>• SWPPP is Publicly available upon request but not automatically online</td>
<td>• SWPPP is posted on the Caltrans website</td>
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<td>• SWPPP is posted on the Caltrans website</td>
<td>• SWPPP is on the Caltrans website</td>
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<td>• SWPPP is posted on the Caltrans website</td>
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</table>
## Inspection

<table>
<thead>
<tr>
<th>1999 CGP</th>
<th>New CGP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Risk 1</strong></td>
</tr>
</tbody>
</table>
| Inspection | • Qualified person must conduct inspection  
• Inspections must be conducted 7 days per week, including weekends and holidays  
• Pre-Storm  
• During storm (every 24 hours)  
• Post Storm | • QSD or QSP must conduct inspections  
• Inspections required during business hours only  
• Quarterly non-stormwater visual inspection  
• Daily visual inspection  
• Weekly inspection for BMP maintenance  
• Pre-storm (within 2 business days prior to rain event)  
• During storm (every 24 hours)  
• Post-storm (within 2 business days of after rain event) | • QSD or QSP must conduct inspections  
• Inspections required during business hours only  
• Quarterly non-stormwater visual inspection  
• Daily visual inspection, including all access roads  
• Weekly inspections for BMP maintenance  
• Pre-storm (within 2 business days prior to rain event), including Rain Event Action Plan  
• During storm (every 24 hours)  
• Post storm (within 2 business days of after rain event) | • QSD or QSP must conduct inspections  
• Inspections required during business hours only  
• Quarterly non-stormwater visual inspection  
• Daily visual inspection, including all access roads  
• Weekly inspections for BMP maintenance  
• Pre-storm (within 2 business days prior to rain event), including Rain Event Action Plan  
• During storm (every 24 hours)  
• Post storm (within 2 business days of after rain event) |
There will be instances where project and site conditions require deviation from the noted BMPs and the descriptions thereof in Appendix C and the implementation details of the Guidelines. However, the practices shown in Table 4-4, described in Appendix C, and detailed in the Guidelines are typical of those that will be implemented on a project-specific basis.

The Department’s engineering staff has developed design criteria for basins that are sized appropriately to better accommodate linear construction projects. The size of the desilting basin is smaller than the detention basin design provided in the General Permit. Based on the Department’s calculations, desilting basins will capture particles 0.02 mm in size and greater and some portion of the particles between 0.01 and 0.02 mm in size. Since this does not meet the General Permit requirement to capture particles 0.01 mm and greater, desilting basins will not be allowed as a “stand-alone” sediment control BMP on any project site. Only detention basins sized in accordance with the General Permit requirements will be allowed as stand-alone sediment control BMPs. The SWRCB and RWQCB staff has agreed to the desilting basin design criteria for use in projects where the General Permit design criteria cannot be accommodated subject to specific siting restrictions identified in the Guidelines. This is a new commitment and has not been incorporated into existing designs. In addition, the nature of linear projects and constrained rights-of-way inherent to the Department’s work may preclude the use of desilting or detention basins of any size at some locations on certain projects and on some projects altogether. Implementation of desilting or detention basins will be considered on a project-specific basis. The Department is committed to refining the desilting and detention basin deployment criteria during the term of this Permit while implementing the desilting or detention basins on new projects where practicable.

Clean dirt removed from a construction site will remain the responsibility of the Department until it is disposed of or reused in a legal manner.

4.5.1 Construction Site BMPs

Within one (1) year of approval of this SWMP, the Department will revise the SWMP and Guidelines, subject to the approval of the Executive Director of the SWRCB, either to

- Provide adequate justification to reject, limit or omit the use of level spreaders and stabilized construction entrances/exits for all construction sites; or
- Amend the list of approved BMPs to include them. Revisions to the SWMP may include appropriate criteria for the selection and implementation of approved BMPs.

In October 2001, the Department completed an effectiveness evaluation of level spreaders, which consisted of an extensive literature search, and a review of 40 Department construction sites. Based on the results of the evaluation, it has been concluded that the level spreader BMP does not lend itself to use as a temporary construction site BMP and should be rejected from further studies and inclusions in the Department’s storm water program. Future studies may evaluate the use of level spreaders as a permanent BMP.

Stabilized entrance/exit BMPs are still being evaluated by the Department due to a limited number of rainfall events during the 2001/2002 rainy seasons. A report will be provided to the SWRCB prior to or with the April 2003 Annual Report.
4.5.2 Rainy Season

There is no defined rainy season for implementation of the requirements of the Construction General Permit. The Department will implement General Permit requirements on a year-round basis.

The Department uses a rainy season definition for the Lahontan RWQCB (Region 6) to ensure construction site BMPs are implemented during winter rain and snow storms and summer thunder and flash flood storms. The Department also revised Tables 4-2, 4-3 and 4-4 of the Guidelines to remove any definition of rainy season for areas of Regions 6 and 7 below 1,200 meters. For these areas:

- The Department will notify the Regional Board staff of construction projects in these areas at least 30-days prior to the start of construction.
- During the 30-day notification period, Regional Board staff may request to review the SWPPP or meet with the Department to discuss the project.
- If Board staff does not respond within the 30-day review period, then the Department can proceed with its construction activities.

The Board may still inspect the site and take enforcement, if necessary, pending inspection findings.

The notification format for these areas has been developed cooperatively between the Department, SWRCB and Regions 6 and 7 staff. The notification requires such items as expected start and stop dates, site location (including USGS coordinates), size of the construction contact name, etc. The SWPPP does not have to be submitted as part of the notification.

4.6 ILLICIT CONNECTION/ILLEGAL DISCHARGE

On construction sites, the RE and the Contractor shall be alert to and report the potential presence of illicit connections or illegal discharges. These situations will be addressed according to the BMP: Illicit Connection/Illegal Discharge Detection and Reporting BMP (see Section 4 in the Guidelines).

4.7 NON-STORM WATER DISCHARGES

4.7.1 Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the Department’s program for controlling pollutants from permitted non-storm water discharges stemming from construction sites. Previously described spill prevention, waste management and other practices will be implemented to ensure that these discharges remain uncontaminated.

Permitted non-storm water discharges include the following categories:

- **Discharges Authorized by a Separate NPDES Permit:** Since these discharges have a separate permit, they are not addressed by this Statewide SWMP.
• **Exempted Discharges**: These discharges have not been found to contain pollutants and can therefore be discharged without direct application of BMPs. (Previously described spill prevention, waste management and other practices will be implemented to ensure that these discharges remain uncontaminated.)

These discharges include:

• **Conditionally Exempt Discharges**: The conditionally exempt discharges and their associated BMPs are identified in Table 4-5.

Groundwater dewatering is a common non-storm water discharge associated with construction activities. The nine RWQCBs throughout the State have different requirements for dewatering. Because of these requirements, dewatering discharges cannot be considered as an automatic conditionally exempt discharge through the Permit, but rather it may be conditionally exempt once the proposed discharge is reported, reviewed, and approved on a case-by-case basis by the appropriate RWQCB. The process the Department will follow to seek the approval of the RWQCB is provided in Figure 4-15 of the Guidelines. If approved by the appropriate RWQCB, the Department will implement the appropriate BMPs, including treatment if needed, to meet the conditions of the RWQCB and to ensure dewatering is not a source of pollutants in the storm drain system or surface water once it is discharged.

**TABLE 4-6: NON-STORM WATER BMPS FOR CONDITIONALLY EXEMPT DISCHARGES**

<table>
<thead>
<tr>
<th>Non-Storm Water Discharges</th>
<th>BMP Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Uncontaminated pumped groundwater</td>
<td>Dewatering Operations(1)</td>
</tr>
<tr>
<td>b. Foundation drains</td>
<td>N/A(2)</td>
</tr>
<tr>
<td>c. Water from crawl space pumps</td>
<td>N/A(2)</td>
</tr>
<tr>
<td>d. Footing drains</td>
<td>N/A(2)</td>
</tr>
<tr>
<td>e. Air-conditioning condensate</td>
<td>N/A(3)</td>
</tr>
<tr>
<td>f. Irrigation water</td>
<td>Potable Water/Irrigation</td>
</tr>
<tr>
<td>g. Landscape irrigation</td>
<td>Potable Water/Irrigation (4)</td>
</tr>
<tr>
<td>h. Lawn or garden watering</td>
<td>Potable Water/Irrigation (4)</td>
</tr>
<tr>
<td>i. Planned and unplanned discharges from potable water sources</td>
<td>Potable Water/Irrigation (5)</td>
</tr>
<tr>
<td>j. Water line and hydrant flushing</td>
<td>Potable Water/Irrigation (5)</td>
</tr>
<tr>
<td>k. Individual residential car washing</td>
<td>N/A(6)</td>
</tr>
<tr>
<td>l. Discharges or flows from emergency fire fighting activities</td>
<td>N/A(7)</td>
</tr>
</tbody>
</table>

Prior to discharge, Caltrans will work directly with the appropriate RWQCB to determine the appropriate monitoring requirements, if needed, for the proposed discharge.

These discharges are not known to exist at the Department’s facilities.

Air-conditioning condensate discharges are not expected to occur. Routinely, the Department’s air-conditioning systems are so small that any such occurrences will evaporate prior to discharging to receiving waters.
Irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized through the Potable Water/Irrigation BMP implementation, occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. The preceding statement constitutes notice to the SWRCB and the RWQCBs of such occurrences statewide. The Department is currently conducting characterization studies that may find some irrigation and landscaping practices to be sources of pollutants. If found, BMPs will be implemented to eliminate or reduce the discharge of pollutants associated with irrigation so that such discharges will be conditionally approved under the Permit.

Activities by others that generate these discharges will require pollution management as specified in the Permit. Parties that undertake activities on the Department’s property that have the potential to result in storm water discharges of this type will be required to notify the Department and the RWQCB in advance and to implement practices to appropriately manage pollutants.

Cleaning of residential cars is not an allowed activity on the Department’s property. See the Vehicle and Equipment Cleaning BMP for cleaning of construction vehicles and equipment (not considered an exempt discharge).

The Department has no authority over these discharges. The Department will inform all federal, state and local fire officials of the discharge requirements of the Permit and refer them to the SWRCB for advice or assistance in how to achieve these expectations.

### 4.7.2 Nonpermitted Non-Storm Water Discharges

The Permit prohibits the discharge of all non-storm water discharges unless exempt or conditionally exempt. If an unauthorized non-storm water discharge occurs, the REs shall report the discharge to the District Construction Storm Water Coordinator within 12 hours of the discovery of such discharges. The District Construction Storm Water Coordinator shall report such discharges to the appropriate RWQCB in accordance with the noncompliance reporting procedures described in Section 9.
SECTION 5  MAINTENANCE STORM WATER MANAGEMENT PROGRAM

5.1 OVERVIEW

This section describes how the Department will comply with Permit requirements by incorporating storm water quality management into its maintenance activities. The Department will achieve compliance by implementing the Maintenance Storm Water Management Program described herein. Any Caltrans District or division that performs maintenance-related activities or functions will follow the BMPs as described within this section. This section is organized as follows:

- Section 5.2 provides an overview of the Maintenance Storm Water Management Program, which is the mechanism for incorporating maintenance BMPs into the Maintenance Program and ensuring that they are implemented.
- Section 5.3 identifies maintenance BMPs for maintenance activities.
- Section 5.4 describes the program for non-storm water discharges.
- Section 5.5 describes how the Department maintains treatment BMPs.
- Section 5.6 describes how the Department develops Facility Pollution Prevention Plans for maintenance facilities and inspects facilities to ensure that BMPs are adequate and properly implemented and maintained.

5.2 IMPLEMENTATION AND ASSESSMENT OVERVIEW

The Headquarters Division of Maintenance Division and District Maintenance Divisions (referred to herein as Maintenance) are responsible for the care and upkeep of state highways. Maintenance performs activities that could adversely impact storm water and receiving water quality if not performed without the appropriate BMPs. The Maintenance Storm Water Management Program describes:

- The program to implement and assess maintenance BMPs (Category IA) as part of the ongoing maintenance activities for existing highways and highway-related properties, facilities and activities.
- The activities to manage potential storm water pollution from accidental spills, illicit connections, illegal discharges and illegal dumping within the Department’s rights-of-way.
- Implementation of BMPs to reduce the potential for storm water pollution at maintenance facilities by minimizing contact between storm water and various materials and substances used and stored at maintenance facilities.

The following positions within the Department are responsible for implementing the Maintenance Storm Water Management Program within the Districts:

California Department of Transportation
Statewide Storm Water Management Plan
• **Maintenance Deputy District Director (or Regional Manager):** Maintenance Deputy District Director (or Regional Manager) are responsible for the implementation of policies, procedures, personnel and equipment of the District Maintenance Storm Water Protection Program within their respective Districts. This includes ensuring compliance with Statewide SWMP elements required to be implemented by the District Maintenance Division.

• **Maintenance Managers:** Maintenance Managers direct maintenance activities within regions or programs of the District. Each region is subdivided into maintenance areas. Maintenance Managers provide direct supervision to Maintenance Superintendents within their region or program.

• **Maintenance Superintendents:** Superintendents direct maintenance activities and provide direction to Maintenance Area Supervisors. Superintendents are responsible for ensuring maintenance BMPs are implemented in their jurisdictions.

• **Maintenance Area Supervisors:** Maintenance Area Supervisors are responsible for direct supervision of a maintenance crew. Supervisors provide on-the-job training for specific crew assignments, including compliance with water quality protection requirements. Specific crew assignments are covered prior to the start of scheduled maintenance activities. Supervisors have on-site responsibility for BMP implementation.

The Maintenance Stormwater Program Enforcement Response Plan (see Appendix A) describes the approach for evaluating and improving maintenance facilities and activities to ensure that they are in compliance with the statewide stormwater permit (Permit), the SWMP, and Caltrans Maintenance Program guidance documents. This effort includes evaluating compliance at the maintenance facilities as well as the field activities, assessing the trends, identifying recommendations for improvements, and will incorporate appropriate feedback loops to assure implementation of improvements and correction of any identified deficiencies. The Independent Assurance program provides oversight inspection to ensure that Maintenance Division actions are implemented and facilities are operated and maintained so that they are protective of water quality. The protocols will ensure that the inspections are:

- Unannounced, unless safety or other considerations necessitate reasonable pre-inspection notification;
- Conducted by properly trained personnel who are not affiliated with the location; and
- Adequately documented and information entered into the Maintenance Facility database.

The Quality Assurance and Response Program and the Stormwater Management Program Enforcement Response Plan (see Appendix A) are progressive response scheme to ensure that noncompliant activities are brought into compliance. The quality assurance and enforcement response program includes inspection and follow up policies that improves overall compliance and utilize data tracking tools designed to consolidate
and analyze information in a standardized manner. These data tracking tools include, but are not limited to, the following applications:

- Erosion Inventory Database
- Storm Drain System Inventory
- IC/ID Database
- Maintenance Facility and Activity Database
- Facilities Pollution Prevention Plans (FPPPs)
- Training Database

At a minimum, the data tracking tools will track the inspection findings, deficiencies noted, how the deficiencies were corrected, and any follow up inspections conducted. The Enforcement Response Plan (see Appendix A) will also describe how and which data tracking tools will be made available to the public (e.g., through a Caltrans website or other similar mechanism).

5.3 MAINTENANCE BMPS

The Department has developed guidance that addresses the implementation of storm water BMPs during highway maintenance activities and activities conducted at maintenance facilities. The Category IA BMPs to be implemented are technology-based controls to attain MEP pollutant control, as described in Section 3.2. Circumstances under which Category III BMPs would be implemented are also described in Section 3.3.

Table 5-1 identifies the approved BMPs that are applicable to activities and operations on highways and at maintenance facilities. General BMPs that apply to a majority of the Department’s activities are identified for individual activities in the table. Detailed descriptions and guidance regarding implementation of specific BMPs are provided in Appendix C and Section 2 of the Guidelines.

The BMPs are grouped into “families” based on crew assignments (e.g., if a roadway crew plans to conduct asphalt work, a Maintenance Area Supervisor would refer to BMPs in Table 5-1 under the “A Family” heading “Flexible Pavement”). Maintenance Area Supervisors are responsible for ensuring that the personnel under their direct supervision are implementing the BMPs.

Facility and/or site conditions may allow implementation of enhanced BMPs that go beyond those set forth in Table 5-1, described in Appendix C and detailed in the Guidelines. The Department will continue to encourage experimentation and innovation on deploying enhanced BMPs to minimize pollution. Feedback from the implementation of innovative measures is gathered for analysis and reporting in the Annual Report process. Through feedback stemming from implementation of enhanced BMPs, the Department expects that the statewide maintenance management practices identified herein will continue to evolve and improve in their effectiveness in managing the quality of storm water discharges for the Department’s facilities.
## TABLE 5-1: MAINTENANCE BMPS

<table>
<thead>
<tr>
<th>Scheduling and Planning</th>
<th>Sediment Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Silt Fence</td>
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<tr>
<td></td>
<td>Sandbag or Gravel Bag Barrier</td>
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<tr>
<td></td>
<td>Straw Bale Barrier</td>
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<tr>
<td></td>
<td>Fiber Rolls</td>
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<td></td>
<td>Check Dam</td>
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<tr>
<td>Concentrated Flow Conveyance Controls</td>
<td>Overside/Slope Drains</td>
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<tr>
<td></td>
<td>Ditches, Berms, Dikes, and Swales</td>
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<tr>
<td></td>
<td>Temporary Diversion Ditches</td>
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<tr>
<td>Soil Stabilization</td>
<td>Compaction</td>
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<tr>
<td></td>
<td>Wood Mulch</td>
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<tr>
<td></td>
<td>Hydraulic Mulch</td>
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<td></td>
<td>Hydroseeding/Handseeding</td>
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<tr>
<td></td>
<td>Straw Mulch</td>
</tr>
<tr>
<td>Clear-water Diversion</td>
<td>Work in a Water Body</td>
</tr>
<tr>
<td>Sediment Tracking Control</td>
<td>Tire Inspection and Sediment Removal</td>
</tr>
<tr>
<td>Waste Management</td>
<td>Spill Prevention and Control</td>
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<td></td>
<td>Solid Waste Management</td>
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<td></td>
<td>Hazardous Waste Management</td>
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<td></td>
<td>Contaminated Soil Management</td>
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<td>Sanitary/Septic Waste Management</td>
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<td></td>
<td>Liquid Waste Management</td>
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<td>Concrete Waste Management</td>
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<tr>
<td>Materials Handling</td>
<td>Material Delivery and Storage</td>
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<td></td>
<td>Material Use</td>
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<tr>
<td>Vehicle and Equipment Operations</td>
<td>Vehicle and Equipment Fueling</td>
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<tr>
<td></td>
<td>Vehicle and Equipment Maintenance</td>
</tr>
<tr>
<td>Paving Operations Procedures</td>
<td></td>
</tr>
</tbody>
</table>
Table 5-1: Maintenance BMPS

<table>
<thead>
<tr>
<th>Water Conservation Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable Water/Irrigation</td>
</tr>
<tr>
<td>Safer Alternative Products</td>
</tr>
</tbody>
</table>

Drainage Facilities

| Baseline Storm Water Drainage Facilities Inspection and Cleaning |
| Enhanced Storm Drain Inlet Inspection and Cleaning Program    |
| Illicit Connection Detection, Reporting, and Removal          |
| Illegal Spill Discharge Control                               |

Litter and Debris

| Litter and Debris |
| Anti-Litter Signs |

Chemical Vegetation Control

Vegetated Slope Inspection

Snow Removal and De-Icing Agents

Dewatering Operations (Temporary Pumping Operations)

Sweeping and Vacuuming

Maintenance Facility Housekeeping Practices

Appendix C describes how these BMPs were selected using criteria designed to comply with the technology-based requirements. As technology advances and more experience is gained with existing BMPs, the Department will periodically reevaluate existing BMPs and identify new BMPs that meet the standard of MEP for pollutant removal, as described in Section 3.2.

The Guidelines include a series of tables that describe activities and subtasks within each activity that are or could be sources of pollutants in storm water runoff; the tables also identify the pollutants of concern associated with each activity and subtask. The descriptions also include the types of materials and wastes generated. For each activity and subtask described, the tables identify BMP(s) to be implemented to eliminate or reduce either the source of pollutants or the pollutants in runoff. The Guidelines provide detailed implementation requirements for each BMP by activity and subtask.

The objective of implementing maintenance BMPs is to provide preventative measures to ensure that maintenance activities are conducted in a manner that reduces the amount of pollutants discharged to surface waters via the Department’s storm water drainage systems. The Department’s maintenance activities involve the use of a variety of products. Under normal, intended conditions of use, these materials are not considered “pollutants of concern.” However,
if these products are used, stored, spilled or disposed of in a way that may cause them to contact
storm water or enter storm water drainage systems, they may become a concern for water
quality.

Potential pollutants of concern for the Department’s maintenance activities include petroleum
products, sediments, trash and debris, metals, acidic/basic materials, nutrients, solvents, waste
paint, herbicides, pesticides, and others. Many of these potential pollutants can be prevented
from being discharged via storm water drainage systems by selecting and implementing BMPs
appropriate for the activity and subtask being conducted.

The majority of maintenance activities are performed in dry weather to minimize impacts to
water quality; however, conditions may exist which require some activities be conducted during
wet weather.

5.3.1 A Family (Flexible Pavement) and B Family (Rigid Pavement)

The general objectives of flexible and rigid pavement maintenance activities are to provide
public safety, protect personal property, preserve the state’s capital investment, and to maintain a
riding quality satisfactory to the traveling public. Road surface maintenance typically involves
the use of concrete, asphalt and other materials to repair existing road surfaces. Potential
pollutant sources, potential pollutants and approved BMPs for paving activities are identified in
Appendix C of the Statewide SWMP and Section 2 of the Guidelines.

5.3.2 C Family (Slopes/Drainage/Vegetation)

The maintenance activities related to slopes, drainage and vegetation (C Family) typically
include repair, replacement and clearing of channels, ditches, culverts, underdrains, horizontal
drains and other elements of storm water drainage systems. Protective measures such as soil
stabilization using vegetation or rock on stream banks, benches or ditches are also part of the C
Family maintenance activities.

Caltrans has established a program to periodically inspect roadside segments prone to erosion to
determine the need for remedial measures. The program is coordinated by the District Divisions
of Maintenance. Inspections are performed by maintenance managers, superintendents,
supervisors, landscape specialists, maintenance storm water coordinators, lead workers, and
other maintenance personnel. These inspections are conducted along all roadsides at least once
during an established 5-year schedule. Roadsides found to be of significant concern will be
inspected on a more frequent basis depending on site conditions. In addition, all newly
completed slopes resulting from construction projects are inspected on a more frequent basis up
to one year after project completion.

Caltrans uses a standard reporting form for recording inspection findings and identifying
recommended repairs. Slides and slip-outs encountered during routine surveillance and
inspections are evaluated for repair. Recommendations are developed for site-specific remedial
measures to maintain slope and soil stability. Remedial measures can range from minor grading
or seeding to installation of major slope stabilization systems. A summary of the inspections
conducted by each District is submitted with the Annual Report.
The Districts will prioritize stabilization efforts for those slopes most prone to erosion based on the following criteria:

Priority 1: Slopes within highway segments in areas prone to erosion that are within Environmentally Sensitive Areas (ESAs)

Priority 2: Slopes within highway segments in ESAs

Priority 3: Slopes within highway segments in areas prone to erosion

Environmentally Sensitive Areas include:

- Areas that discharge to Areas of Special Biological Significance (ASBS),
- Areas that discharge to or are within 200 feet of a CWA Section 303(d) listed water bodies that are impaired for a pollutant that is known to be or likely to be discharged from Caltrans facilities or right of way
- Areas where discharges are subject to a TMDL for a pollutant that is known to be or likely to be discharged from Caltrans facilities or right of way
- Known “hot spot” areas of pollution accumulation as identified by Maintenance personnel, complaints and others.

Areas prone to erosion are areas where major and/or minor repairs were required for three consecutive years.

District maps and databases have been developed identifying areas prone to erosion and Environmentally Sensitive Areas.

Road segments that do not meet one or more of the above criteria will be assigned lower priorities for slope stabilization than those segments that do meet one or more of the above criteria. These criteria are not intended to supersede efforts required for ensuring safety or the preservation of the State’s transportation system.

The Division of Maintenance, in collaboration with Division of Environmental Analysis, will maintain a database that will contain geo-referenced data identifying road segments that are prone to erosion and the discharge of sediment. The database will also contain information regarding slope stabilization inspection and repair activities of these erosion prone areas. District staff will review the database on an annual basis to ascertain the total number of road segments receiving slope stabilization in a District. District staff will use this information to identify slopes that have not received stabilization according to schedule or prioritization status and slopes that have been incorrectly prioritized. The Division of Maintenance will provide training to District Maintenance staff so that they understand how to inspect and report findings related to slope, drainage, and vegetation evaluations. Training will be documented in the training database that will track the dates, training course descriptions, and names of attendees present at the training sessions held.
5.3.2.1 Slope Stabilization

Based upon review of the slopes by District staff, remedial measures are developed. The solutions range from minor grading or seeding to installation of major slope stabilization systems. Minor slope failures (those within the Division of Maintenance budget and operational capability) are incorporated into the District Maintenance schedule for repairs. Major failures or slopes with significant erosion problems needing extensive capital solutions are identified in the Department’s State Highway Operation and Protection Program (SHOPP) Ten Year Needs Plan. The prioritized needs are addressed based upon the availability of the funds and statewide priorities.

5.3.2.2 Baseline Storm Water Drainage Facilities Inspection and Cleaning Program

Maintenance Area Supervisors are responsible for inspecting storm water drainage systems and assess the need for cleaning or clearing. District staff will inspect culverts and drain inlets annually in the fall and observe drainage systems throughout the winter during and after storms to determine if cleaning or repairs are required. Culverts will be cleaned when sediment adversely impacts culvert function. Ditches will be cleaned prior to the rainy season to maintain the hydraulic capacity of the ditch. Ditches and gutters will be sealed or repaired when structural integrity is endangered. Downdrains will be inspected annually and cleaned or repaired as necessary. Solid and liquid wastes generated by the cleaning of storm water drainage system facilities are disposed of in accordance with federal, state and local liquid and solid waste disposal regulations.

The Division of Environmental Analysis, in collaboration with other Divisions that use and contribute supplemental data, will develop and maintain a Storm Drain System Inventory. This database will contain geo-referenced data that identifies the location of all storm drain inlets, outfalls, and tributary areas to inlets at all Caltrans Construction Activities, Maintenance Activities, and Maintenance Facilities within Phase I and II MS4 areas and the following additional areas:

- Critical storm drains (as identified by the SWRCB and Caltrans) that discharge directly to an Area of Special Biological Significance (ASBS).
- Critical storm drains adjacent to an ASBS (as identified by the SWRCB and Caltrans) that discharge to Waters of the State or Water of the United States.
- Storm drains within areas prone to erosion that are within 200 feet of a sediment-impaired 303(d) water body.

Caltrans maintains a database which includes inspection, repair, and cleaning activities information that will be reported annually by section of highway. The database will be used as a tool to assist in scheduling storm drain cleaning and contain information regarding new and decommissioned storm drains as they are added or removed from Caltrans’ control, respectively. The database identifies areas requiring frequent cleaning.

Caltrans will inspect storm drains annually during pre-rainy season periods and prioritize the cleaning of storm drains based on the following criteria:
Priority 1: Storm drains on highway segments in areas prone to erosion that are within Environmentally Sensitive Areas (ESAs)

Priority 2: Storm drains on highway segments in ESAs

Priority 3: Storm drains on highway segments in areas prone to erosion

District maps and databases have been developed identifying areas prone to erosion and Environmentally Sensitive Areas.

Storm drains that do not meet one or more of the above criteria will be assigned lower priorities for cleaning than those drains that do meet one or more of the above criteria. Type of drainage facility (e.g., self-cleaning drop inlets, catch basins, trash screen, etc.) will also be considered when prioritizing a drain for cleaning. These criteria are not intended to supersede efforts required for ensuring safety or the preservation of the State’s transportation system.

5.3.2.3 Enhanced Storm Drain Inlet Inspection and Cleaning Program

Research to date has not demonstrated drain inlet cleaning to be effective in reducing the concentrations of pollutants typically measured in water columns, such as metals. Research is currently underway to investigate the benefits of drain inlet cleaning in reducing gross pollutants, such as litter and debris.

Litter is a high priority pollutant in some receiving waters within the State and is a pollutant listed on the CWA Section 303(d) lists for receiving waters in Southern California. The Department will implement an annual drain inlet inspection and cleaning program in metropolitan areas along the South Coast (San Diego, Orange, Los Angeles, and Ventura Counties). Due to employee safety, this program will not address left shoulders and median and ramp inlets that would require lane closures. Addressing these inlets results in unacceptable traffic congestion and delays and unacceptable exposure of workers to traffic hazards. The Department will focus this program on inlets that can be safely accessed without substantial traffic interruptions. This includes right shoulder inlets and other inlets that do not require lane closures. If, after implementing the program, it is determined the drain inlets excluded are found to be significant sources of litter and debris, the Department will work with the SWRCB and RWQCBs to determine an effective method to address discharges of trash and debris from these inlets.

In the metropolitan portions of Los Angeles, San Diego, Orange and Ventura Counties, the storm drain inlets will be inspected and cleaned annually prior to the rainy season. Those storm drain inlets that contain 12 inches or more of accumulated material will be cleaned. Inspection and cleaning activities will be reported annually by section of highway. This information will be used as a tool to evaluate the program.

The Department’s District 7 is conducting the enhanced storm drain inlet-cleaning program in accordance with a court order. Nothing in this SWMP will conflict with or result in the Department not complying with the stipulations of the court order. To address safety and access issues relating to the maintenance of the Department’s facilities and systems, a research study...
will be conducted (Appendix C.3.3) to investigate alternative highway and drainage system
design to eliminate or reduce the maintenance issues. This Section of the SWMP will be revised
accordingly as a result of the study. Implementation of new design standards that may result
from the study will be incorporated through Section 4.3.2. As further information is available
from the continuing research efforts, this program will be re-evaluated with the SWRCB.

5.3.2.4 Illegal Connection/Illlicit Discharge

District Maintenance staff will investigate and resolve reports of IC/IDs in accordance with this
section and the Illegal Connection and Illicit Discharge (IC/ID) Detection and Elimination BMP
in the latest version of the Maintenance Staff Guide (currently December 2011). Caltrans staff
and the public will rely upon a readily available web-based reporting system available from
Caltrans’ internet home page (http://www.dot.ca.gov/hq/maint/msrsubmit) and District phone
numbers for reporting of IC/IDs. Caltrans will also provide outreach to the public to inform it
that the web link for the reporting of IC/IDs is available. Caltrans will track IC/ID reports from
initial notification through resolution.

The IC/ID BMP provides District Maintenance staff with detection, investigation, reporting,
corrective action and training guidance as summarized below:

- Detection:
  - Maintenance field personnel, as part of their routine inspections and maintenance
    activities, shall examine work areas for the existence of IC/IDs.
  - The public may report IC/IDs to Caltrans.

- Investigation:
  - Maintenance staff will investigate IC/IDs and document finding on a standard
    Maintenance form. A determination of the source, substance and duration of the illegal
    connection or illicit discharge will be attempted.

- Reporting:
  - Maintenance staff investigating IC/IDs will report their findings to the District
    Maintenance Stormwater Coordinator who will coordinate with the District NPDES
    Coordinator.
  - The District NPDES Coordinator will complete the Incident Report Form (Appendix D)
    and inform the Regional Water Quality Control Board.
  - If hazardous materials are known or suspected, the District Hazardous Materials
    Manager will be notified.
  - Maintenance staff will also follow the Maintenance Service Request (MSR) procedures
    for IC/IDs reported by the public.
  - Maintenance staff will record IC/ID activities in IMMS.

- Corrective Actions:
- Actions in response to intentional introduction of harmful materials to the storm drain system (acts of terrorism) will be in accordance with Caltrans’ Emergency Operations Plan.

- Highway spills that cause an immediate threat to life, property or the environment and impacts the traveled way will be in accordance with the Emergency Highway Spill Clean-up policy and applicable sections of the Maintenance Manual.

- Actions taken to remove illicit discharges due to illegal encampments will be in accordance with the Illegal Encampments policy.

- Caltrans may immediately remove from any State highway any illicit discharge or illegal connection encroachment which:
  - obstructs or prevents the use of such highway by the public;
  - consists of refuse;
  - is a non-approved, non-permitted advertising sign of any description.

- Caltrans may immediately remove from any State highway any encroachment, such as pipes or illegal connections, that has not been removed after sufficient notice.

- Removal of illicit discharges consisting of illegal dumping including animal carcasses will be in accordance with the Maintenance Manual.

- Maintenance staff may assist Environmental staff and regulatory agencies in conducting IC/ID investigations of ongoing illegal connections and illicit discharges where the source is not immediately determined.

Caltrans may pursue parties responsible for IC/IDs when they can be identified for the purpose of (a) reimbursement of costs associated with Caltrans’ response to an IC/ID and (b) elimination of future IC/IDs within a District.

Progressive enforcement for IC/IDs may include the following actions:

- **Written Warning** – District Maintenance staff, where applicable, will issue a “Notice of Illegal Discharge and Demand for Correction Action” letter to the property owner where an illegal connection/discharge is discovered or to the individual responsible for the illegal discharge of material to a Caltrans right-of-way (ROW) where the responsible party’s identity is ascertained.

- **Removal of Connection/Discharge** – District Maintenance staff or Caltrans designee may remove the IC/ID if it has not been corrected within a specified period of time as indicated in the BMP.

- **Other Enforcement Actions** – Caltrans is not a typical MS4, such as a city or county, with its own enforcement branch such as police, sheriff, or zoning board. Without its own enforcement branch, Caltrans relies on other agencies (i.e., California Highway Patrol) for enforcement assistance. Caltrans may seek the enforcement assistance of the following jurisdictions to correct an IC/ID: U.S. EPA, California EPA, city and county environmental departments, city and county law enforcement, and/or municipal MS4s.
Civil Action – Caltrans may pursue legal action, where applicable, to ensure corrective actions are taken to resolve an IC/ID and to recover appropriate costs.

Caltrans will also provide annual training sessions to District Maintenance staff on how to implement the IC/ID BMP. Training will be documented and include the dates, training course descriptions, and names of attendees present at the training sessions held.

District Maintenance staff will provide the District NPDES Coordinator with IC/ID investigation and resolution activities. The District NPDES Coordinator will review the IC/ID database on an annual basis to ascertain the number of IC/ID reports, investigations, and abatements that occurred in a given District. District staff will use this information to identify and focus its efforts on areas experiencing elevated IC/IDs, and to determine if more frequent training and/or changes to existing curricula and training materials are needed.

5.3.2.5 Coordination with Local Jurisdictions

Caltrans’ twelve Maintenance Districts collectively span the state and, as such, District boundaries overlap with the boundaries of other local jurisdictions, including, but not limited to, law enforcement, fire protection, and city and county MS4 stormwater programs. Stormwater and non-storm discharges, as well as discharges from IC/IDs often do not occur isolated within a single jurisdiction rather they occur at the boundaries of adjacent jurisdictions or span multiple jurisdictions. Caltrans, as well as other local jurisdictions, would benefit from a coordinated approach to identifying and resolving IC/IDs. More broadly, Maintenance Districts should also work with local jurisdictions charged with stormwater management and environmental protection to cooperatively reduce or eliminate the discharge of pollutants to receiving waters.

5.3.3 D Family (Litter/Debris/Graffiti)

Traffic causes loose material on the roadbed to concentrate along curbs, dikes, gutters, paved medians, interchange ramps, bridge decks and street intersections. The Department conducts roadbed and roadside cleanup operations to provide safe highway conditions and to maintain a neat and clean appearance appropriate for the type and use of the road. Litter and debris removal activities include sweeping of shoulders, paved medians, etc., and litter removal along the roadsides. Graffiti is the defacing of facilities, most commonly with paint, and also by markers and stickers. The Department routinely removes graffiti from concrete structures, road signs, sound walls, steel bridge beams and other facilities, such as buildings and roadside rest area restrooms. The most common graffiti removal practice is to paint over the area. Other techniques that could be used, depending on the extent and nature of the graffiti, are Water/Hydro-Pressure/Sand/Soda Blasting, Safe Chemical/Solvent Removal and Glass Polishing.

5.3.4 E Family (Landscaping)

The Department maintains vegetation on roadsides that is compatible with the surrounding environment, safe highway use, aesthetics, erosion and dust control. However, some vegetation must be controlled to reduce the risk of roadside fires, to maintain sight distance, to provide safety and to discourage noxious weeds.
Activities conducted under the Vegetation Control Program include chemical weed control, mechanical weed control, tree and shrub pruning and tree and shrub removal. Removal of vegetation is generally restricted to a narrow band adjacent to shoulder edges, which is necessary to provide sight distance and protect highway appurtenances, such as guardrails and signs. Vegetation management practices are designed to control vegetation while minimizing soil erosion.

By court order, the Department’s District 7 is conducting an erosion control pilot study to address the need to remove a narrow band of vegetation along the shoulder of a road. Results from this study will be evaluated and provided in the Annual Report. The results of the study may change the Department’s practices in other areas of the State.

The Department’s vegetation control program is based on integrated pest management principles, including the use of physical, chemical and biological methods. To implement the vegetation control program, each District prepares a vegetation management plan. These plans are developed to address the Department’s need to eradicate noxious and invasive weeds and maintain fire control strips. In accordance with Provision I.b. of the Permit, the vegetation control plans are to include the following minimum elements:

- Enhance the use of appropriate native and adapted vegetation throughout all the Department’s rights-of-way for the purpose of preventing erosion and removing pollutants in storm water and nonstorm water runoff.

- Apply herbicides in a manner that minimizes or eliminates the discharge of herbicides to receiving waters. Factors to be considered include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals.

- Restrict the application of nutrients to rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface water.

As part of its Vegetation Control Program, the Department has a goal to reduce herbicide and pesticide usage. To meet this goal, each District’s vegetation management plan includes an herbicide use plan that includes the following measures:

- Factors considered in developing a plan for herbicide use include timing in relation to expected precipitation events, proximity to water bodies, and the effects of using combinations of chemicals.

- Chemical control activities are performed in compliance with federal, state and local pesticide use regulations.

- Activities are overseen by a licensed pest control adviser.

- Districts complete chemical use report forms. These forms record the date, locations, chemicals, amount used, purpose, weather, wind direction and other pertinent information.

Each Department District will submit its proposed vegetation control program that includes its herbicide use plan to the RWQCBs by May 15 of each year. The Annual Report will summarize
the Department’s chemical use report forms to demonstrate the quantity of herbicides used
during the previous reporting period, by type of herbicide, by District, and by month. The
summary format will be developed cooperatively between the Department and the SWRCB and
will provide a mechanism through which the Department can demonstrate its reduction of
chemical use for vegetation control.

5.3.5  F Family (Environmental)
The F Family maintains permanent treatment BMPs. The F Family also implements procedures
for detecting, tracking and reporting illicit connections and associated discharges into the
Department’s storm water drainage system. BMPs related to maintenance field activities and
facility activities have been grouped together in the F Family designation. This separate
designation has been instituted for proper charging practices and tracking purposes.

5.3.6  H Family (Bridges)
Bridge maintenance activities include:

- Repairing damage or deterioration in various bridge components;
- Removing debris and drift from piers;
- Repairing expansion joints, bearing seats, and abutments;
- Cleaning and painting structural steel; and
- Sealing concrete surfaces.

Also included are the maintenance of electrical and mechanical equipment on moveable-span
bridges and the operation of the moveable spans. Potential pollutant sources, potential pollutants
and approved BMPs for bridge maintenance are identified in Appendix C and in Section 2 of the
Guidelines.

5.3.7  J Family (Other Structures)
The J Family of activities includes maintenance and repair of pumping plants and tunnels.
Potential pollutant sources, potential pollutants and approved BMPs for these activities are
identified in Appendix C and in Section 2 of the Guidelines.

5.3.8  K Family (Electrical)
The K Family of activities include all work performed on highway facilities used for control of
traffic with traffic signal systems, highway and sign lighting systems, toll bridge electrical
systems, irrigation controllers and other related systems. Potential pollutant sources, potential
pollutants and approved BMPs for these activities are identified in Appendix C and in Section 2
of the Guidelines.
5.3.9  **M Family (Traffic Guidance)**

The M Family of activities covers all work to replace and maintain roadway delineation and pavement markings. Typical work includes refurbishing, delineation and replacement of missing markers. Potential pollutant sources, potential pollutants and approved BMPs for these activities are identified in Appendix C and in Section 2 of the Guidelines.

5.3.10  **R Family (Snow and Ice Control)**

Snow removal and ice control include snow removal operations and opening of drainage inlets that get covered or blocked by snow and ice. Because salt, deicing chemicals and abrasives may pollute storm water runoff, the Department uses no more than the minimum amount of these materials necessary for effective snow and ice control. The minimum amount of salt will be applied at the most effective time, as determined by the snowstorm severity, duration and temperature.

The Department will continue to work cooperatively with RWQCB offices in the snowy areas of the State to evaluate and develop selection criteria for de-icing agents. These types of materials may have significant adverse impacts on receiving waters.

5.3.11  **S Family (Storm Maintenance)**

The purpose of the S Family of activities is to provide temporary road openings and related maintenance to keep damaged facilities operational following major damage caused by storms, earthquakes, slides, flooding and other major disasters. Potential pollutant sources, potential pollutants and approved BMPs for these activities are identified in Appendix C and in Section 2 of the Guidelines.

5.3.12  **T Family (Management and Support)**

The T Family of activities includes the following:

- Storage, repair, and maintenance of vehicles, equipment and related support materials;
- Fueling and washing of vehicles and equipment;
- Maintenance of buildings, storm water drainage systems and landscaping;
- Storage of sand, salt, asphalt, rock and pesticides;
- Storage of self-generated wastes; and
- Bulk storage of sediment, litter and debris collected by road maintenance activities.

The Department currently implements practices to reduce the potential for storm water pollution by minimizing contact between storm water and the various activities conducted at the site and substances used and stored at the maintenance facilities.

In 1997 a workgroup of the California Water Quality Task Force worked cooperatively with representatives of municipalities and retail gasoline outlets to develop and publish guidelines and recommended BMPs for controlling pollutants associated with retail gasoline outlets. The
Department has evaluated the maintenance-related BMPs in the Task Force guidelines and adapted them for use by the Department (see Appendix C Section B.2.2 and Section 2 of the Guidelines).

5.4 NON-STORM WATER DISCHARGES

5.4.1 California Department of Transportation Maintenance Activities

The Permit prohibits the discharge of nonpermitted non-storm water discharges. Maintenance personnel:

- Determine where the flow of a leak, spill or other runoff will travel;
- Identify drain inlets and watercourses, both upstream and downstream of the work site;
- Ensure that vehicles and equipment are clean and in good operating condition by conducting pre-operational inspections of vehicles and equipment;
- Set up work areas to minimize the tracking of material by vehicles and equipment in and out of the work area;
- Collect and properly dispose of wastes, materials removed as a result of equipment and system maintenance, and litter and debris;
- Secure lids on containers of liquids when not in use;
- Control the Department’s spills promptly and transport collected materials back to a maintenance facility or approved storage site; and
- Have appropriate spill cleanup material on site and protect drainage systems and watercourses from spilled material.

Maintenance Area Supervisors will report facility and activity non-storm water discharges to their District Maintenance Storm Water Coordinators. The District Maintenance Storm Water Coordinators will coordinate the reporting of prohibited non-storm water discharges to the RWQCBs through the District Storm Water Coordinator (see Section 9.4).

The following activities have the potential to generate non-storm water discharges because they may use water in the process or may generate a liquid waste product:

- A2 Asphalt Paving;
- A3 Structural Pavement Failure (Digouts) Pavement Grinding And Paving;
- A5 Sealing Operations;
- B2 Mudjacking and Drilling;
- B3 Concrete Slab and Spall Repair;
- C1 Shoulder Grading;
- C2a Non-landscaped Chemical Vegetation Control;
Storm water quality practices to control or prevent non-storm water discharges that may result from the activities listed above are described in the Guidelines for each BMP. As described in Section 5.2, Supervisors will review the BMPs with their crews to prevent or control non-storm water discharges.

5.4.2 Highway Spills

When spills of hazardous or nonhazardous materials occur on state roadways or the right-of-way, the agency with jurisdiction assumes authority as the incident commander. These spills are illegal discharges resulting from one-time deposits of materials or wastes. The Department’s lead
is in charge of the cleanup activity unless directed otherwise by the incident commander. All
spilled materials are managed to protect public safety and the environment, including water
quality. The Department coordinates with local health agencies and other local, state and federal
agencies (e.g., Department of Fish and Game, Coast Guard, RWQCB, etc.) as appropriate to
determine the approach and level of cleanup needed. Depending on the circumstances of the
spill, this coordination is made directly or through the California Emergency Management
Agency. The Department maintains a list of contractors available statewide to assist in cleaning
up spilled materials if additional resources are needed.

5.4.3 Exempt and Conditionally Exempt Non-Storm Water Discharges

This section describes the Department’s program for controlling pollutants from permitted non-
storm water discharges from maintenance facilities or activities. Previously described spill
prevention, waste management and other practices will be implemented to ensure that these
discharges remain uncontaminated. These practices eliminate or reduce permitted non-storm
water discharges and reduce water pollution from the Department’s maintenance activities and
operations via the Department’s storm water drainage systems. Many of these practices are also
required for personnel safety or by hazardous materials handling regulations.

Permitted non-storm water discharges through the Department’s storm water drainage systems
are divided into three categories:

- **Discharges authorized by a separate NPDES permit:** Since these discharges have a
  separate permit, they are not addressed by this Statewide SWMP.

- **Exempted discharges:** These discharges have not been found to contain pollutants and
can therefore be discharged without direct application of BMPs.
  - These discharges include:
    - Flows from riparian habitats or wetlands;
    - Diverted stream flows;
    - Springs;
    - Rising groundwaters; and
    - Uncontaminated groundwater infiltration.

- **Conditionally exempt discharges:** The conditionally exempt discharges associated with
  maintenance activities and their associated BMPs are identified in Table 5-2.
### TABLE 5-2: NON-STORM WATER BMPS FOR CONDITIONALLY EXEMPT DISCHARGES

<table>
<thead>
<tr>
<th>Non-Storm Water Discharges</th>
<th>BMP Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Uncontaminated pumped groundwater</td>
<td>N/A (1)</td>
</tr>
<tr>
<td>b. Foundation drains</td>
<td>N/A (2)</td>
</tr>
<tr>
<td>c. Water from crawl space pumps</td>
<td>N/A (2)</td>
</tr>
<tr>
<td>d. Footing drains</td>
<td>N/A (2)</td>
</tr>
<tr>
<td>e. Air conditioning condensate</td>
<td>N/A (3)</td>
</tr>
<tr>
<td>f. Irrigation water</td>
<td>Irrigation Potable (Watering) and Non-Potable (E3b) (4)</td>
</tr>
<tr>
<td>g. Landscape irrigation</td>
<td>Irrigation (Watering) Potable and Non-Potable (E3b) (4)</td>
</tr>
<tr>
<td>h. Lawn or garden watering</td>
<td>Irrigation (Watering) Potable and Non-Potable (E3b) (4)</td>
</tr>
<tr>
<td>i. Planned and unplanned discharges from potable water sources</td>
<td>Irrigation (Watering) Potable and Non-Potable (E3b) and Water Line Repairs (E3a) (5)</td>
</tr>
<tr>
<td>j. Water line and hydrant flushing</td>
<td>Water Line Repairs (E3a) (5)</td>
</tr>
<tr>
<td>k. Individual residential car washing</td>
<td>N/A (6)</td>
</tr>
<tr>
<td>l. Discharges or flows from emergency fire fighting activities</td>
<td>N/A (7)</td>
</tr>
</tbody>
</table>

**BMP**  
Best Management Practice

**NA**  
Not Applicable

1. Prior to discharge, the Department will work directly with the appropriate RWQCB to determine the appropriate monitoring requirements, if needed, for the proposed discharge.

2. These discharges are not known to exist at the Department’s buildings.

3. Air-conditioning condensate discharges are not expected to occur. Routinely, the Department’s air-conditioning systems are so small that any such occurrences will evaporate prior to discharging to receiving waters.

4. Irrigation water, landscape irrigation and lawn or garden watering runoff, though minimized through BMP implementation, occur on a regular basis as a result of excess irrigation water running off vegetated and nearby impervious areas and into storm drains. The preceding statement constitutes notice to the SWRCB and the RWQCBs of such occurrences statewide. The Department is currently conducting characterization studies that may find some irrigation and landscaping practices to be sources of pollutants. If found, BMPs will be implemented to eliminate or reduce the discharge of pollutants associated with irrigation so that such discharges will be conditionally approved under the Permit.

5. Activities by others that generate these discharges will require pollution management as specified in the Permit. Parties that undertake activities on the Department’s property that have the potential to result in storm water discharges of this type will be required to notify the Department and the RWQCB in advance and to implement practices to appropriately manage pollutants.

6. Cleaning of residential cars is not an allowed activity on the Department’s facilities.

7. The Department has no authority over these discharges. The Department will inform all federal, state and local fire officials of the discharge requirements of the Permit and refer them to the SWRCB for advice or assistance in how to achieve these expectations.
5.4.4 Nonpermitted Non-Storm Water Discharges

Maintenance Area Supervisors will report all instances of nonpermitted non-storm water discharges to the District Maintenance Storm Water Coordinator in accordance with the procedures in Section 9.4.

5.5 MAINTENANCE OF TREATMENT BMPS

Treatment BMPs capture and remove pollutants from storm water before the runoff leaves the facility. After construction, such projects are normally turned over to Maintenance. For treatment BMPs, regular maintenance will allow the systems to continue to function as designed.

The Department has developed maintenance and inspection procedures that consider factors such as maintenance indicators, field measurements, frequency of field measurements, and specific maintenance activities for the treatment BMPs approved for deployment. These maintenance and inspection procedure BMPs are described in the Guidelines.

The Maintenance Compliance Program is used to evaluate and improve treatment BMP maintenance compliance with the Permit, SWMP, Caltrans Maintenance Program guidance documents, and the Maintenance Storm Water Management Program. The efforts include monitoring of compliance levels in the field, evaluate trends, recommended improvements, and incorporate appropriate feedback loops to assure implementation of improvements and correction of any identified deficiencies. The compliance program includes rigorous inspection and enforcement policies that will act to improve overall compliance, and utilize data tracking tools designed to consolidate and analyze information in a standardized manner.

The Construction Stormwater Program will coordinate with the Maintenance Storm Water Management Program to facilitate transfer of treatments BMPs to the Division of Maintenance. A treatment BMP inventory will be maintained that includes the following:

- Date the treatment BMP was completed and turned over to the Maintenance Division;
- Description of the treatment BMP type
- Location of the treatment BMP (including latitude, longitude, county, route and post mile)

Maintenance records for treatment BMPs will be tracked in the Division of Maintenance’s Integrated Maintenance Management System (IMMS). IMMS will note the cost center responsible for maintenance of each treatment BMP.

5.5.1 Vegetated Treatment BMPS

The Maintenance Division shall follow its Guidance BMPs to mow grass-lined swales and strips, to remove trash and debris, and to repair vegetated areas. These guidance BMPs may be modified based on recommendations given in the Department’s report on final siting and design criteria for vegetated strips and swales that will be provided to the SWRCB by August 15, 2003 (see Section B.5.3). Proposed modifications to operations and maintenance BMPs will be provided to the SWRCB by August 15, 2003. The Department shall allow 60 days for SWRCB review and approval by the Executive Director.
Chemical vegetative control measures will not be used on vegetated treatment BMPs except where the Department is directed by the California Department of Food and Agriculture to treat the BMPs for invasive weeds. The Department will report on the directed usage of chemical vegetative controls in its Annual Report.

5.6 FACILITY POLLUTION PREVENTION PLANS

Facility Pollution Prevention Plans (FPPPs) are developed for the following facility types owned or operated by Caltrans or located within the Caltrans right-of-way: maintenance yards/stations; material storage facilities/permanent stockpile locations (if not totally enclosed); equipment storage facilities, equipment repair and assembly facilities, roadside rest areas, agricultural inspections stations, highway patrol weigh stations, decant storage or disposal locations, and permanent solid and liquid waste management sites. Material storage sites, waste management and disposal sites, and equipment storage sites associated with construction projects do not require FPPPs but are subject to the requirements of the construction contract and the Construction General Permit as applicable.

FPPPs are not required for temporary stockpile locations (in continuous use for less than one year). All temporary stockpile locations will implement the applicable best management practices defined in the Caltrans Stormwater Quality Handbook Maintenance Staff Guide. Any stockpile location in continuous use for more than one year is deemed permanent and requires a Facility Pollution Prevention Plan.

Each FPPP describes the activities conducted at the facility, the BMPs to be implemented to reduce the discharge of pollutants in storm water runoff from the facility, and the facility inspection requirements. Generic FPPP elements can be used for activities that are performed at more than one facility; however, each facility must be evaluated separately and provided with appropriate site-specific BMPs. Each FPPP is to include the following: all potential pollutants at a given facility, specific BMP(s) selected to control each pollutant source, a facility site map showing selected BMPs for implementation, name of the water body (including distance to the water body) or MS4 receiving stormwater discharges from the facility, person responsible for preparation of the FPPP, person responsible for implementing the FPPP, and date the FPPP was last certified.

5.6.1 Maintenance Facility Inspection Requirements

Facility managers inspect their maintenance facilities monthly to monitor the implementation and adequacy of the BMPs. A report that includes the date of the inspection, the name of the inspector, observations, and recommended corrective actions is prepared by the Facility Manager. All inspection records will be maintained for a period of 3 years.

In addition to monthly facility inspections conducted by the facility manager, the District Maintenance Storm Water Coordinators will review at least 20% of each District’s maintenance facilities each year. These reviews will monitor each maintenance facility’s documentation (e.g., FPPP, monthly inspection reports, etc.) and include a thorough inspection. District Maintenance Storm Water Coordinators will confirm that facility managers are inspecting all facilities over which they have jurisdiction and determine that corrective actions recommended for a particular
facility are being implemented. The District Maintenance Storm Water Coordinator will work
with the facility manager to correct any observed instances of noncompliance identified during
the facility manager’s monthly facility inspections.

Each District Maintenance Storm Water Coordinator will prepare a report including the date of
the inspection, name(s) of the inspector, observations, and recommended corrective actions. All
FPPP records will be maintained for a period of 3 years by the Facility Manager. Observed
instances of noncompliance will be reported in accordance with the procedures provided in
Section 9.4 and per the Enforcement Response Plan.

In addition to inspections conducted by the facility managers and the District Maintenance Storm
Water Coordinators, maintenance facilities may be subject to additional compliance reviews
under the Maintenance Compliance Monitoring Program identified in Section 8 of this SWMP
(Section 8.4.2).

Caltrans will maintain an inventory of all of its permanent and temporary maintenance facilities.
For permanent maintenance facilities, the inventory will include the following information:

- Description of the Facility (including types of BMPs implemented) or stand-alone
treatment BMP.
- Geo-referenced location of the Facility or treatment BMP.
- Pollutants associated with the activities carried out at the facility.
- The date the FPPP was certified and signed.

The name of the responsible supervisor for compliance with FPPP along with the name of the
MS4(s) and/or water body(ies) receiving storm water discharge from each permanent facility are
documented in the individual FPPPs.

FPPP development/maintenance and maintenance facility inspection and reporting are used to
comply with the Permit, SWMP, Caltrans Maintenance Program guidance documents, and the
Maintenance Storm Water Management Program.

The Division of Environmental Analysis in collaboration with appropriate Divisions will ensure
training is provided to appropriate staff on the following topics: how to develop a FPPP; how to
perform maintenance facility inspections; how to review maintenance facility inspection reports,
and how to update and use the Maintenance Facility and Activity Database. Caltrans will also
maintain a training database to track the dates, training course descriptions, and names of
attendees present at the training sessions held. District Each District Maintenance division will
maintain a list of District Maintenance staff, their duties, and their training histories in order to
identify those staff responsible for certain tasks and those who have not yet received training in
particular topic areas, or have not recently received training in a particular area. District
Maintenance Management will review District Maintenance staff training histories in
combination with identified noncompliance issues to determine if more frequent training and/or
changes to existing curricula and training materials are needed.
SECTION SIX

TRAINING AND PUBLIC EDUCATION PROGRAM

6.1 INTRODUCTION

This section describes how the Department will comply with the training and public education Permit requirements by providing pertinent information regarding storm water quality management to its employees, construction contractors and the general public. The Department will accomplish compliance by implementing the Training and Public Education Program described herein. This section is organized as follows:

- Section 6.2 describes the storm water quality training program for the Department’s employees.
- Section 6.3 describes outreach to construction contractors on storm water management.
- Section 6.4 describes the public education program.

6.2 EMPLOYEE TRAINING PROGRAM

The Caltrans stormwater training program will ensure that all of its employees have the knowledge and skills necessary to perform their functions so that they may effectively and efficiently implement the stormwater program. Caltrans will ensure that employees consistently implement stormwater management practices across its statewide operations by routinely providing core stormwater training modules to all functional units. The purpose of the employee training program is to teach appropriate Department employees about the following:

- Stormwater characteristics and water quality issues;
- The roles and responsibilities of individuals, Districts, Divisions and Programs within the Department regarding implementation of the Statewide SWMP to achieve Permit compliance;
- Activities and practices conducted by Department employees that are or could be sources of stormwater pollution and non-stormwater discharges;
- BMPs to be implemented for activities or practices that are or could be sources of stormwater pollution and BMPs to eliminate prohibited non-stormwater discharges or BMPs to control exempt or conditionally exempt non-stormwater discharges; and
- How to use the Guidelines or other manuals to select and implement BMPs.

Module Effectiveness Evaluations; and 6.2.1 Employee Training Approach

The Department’s overarching approach for developing and implementing its training program for current and new employees consists of the following:

- Establish a Training Oversight Body (Stormwater Training Manager);
- Employ a statewide Training Database;
- Establish a Statewide Training Implementation Group;
Training and Public Education Program

6.2.2 Stormwater Modules

The training will focus on providing training to Caltrans employees on the following topics (topics may be added or modified as deemed necessary):

- Stormwater permit requirements;
- Stormwater characteristics and water quality issues;
- The roles and responsibilities of individuals, Districts, Divisions and Programs within Caltrans regarding implementation of the SWMP to achieve permit compliance;
- Activities and practices conducted by Caltrans employees that are or could be sources of stormwater pollution;
- BMPs to be selected and implemented for activities or practices that are or could be sources of stormwater pollution;
- BMPs to eliminate prohibited non-stormwater discharges;
- BMPs for certain authorized non-stormwater discharges;
- Use of guidelines or other manuals to select and implement BMPs; and
- Selection and field installation of BMPs.

The Department’s District employees are classified into several functional groups. Table 6-1 identifies the functional groups that have storm water quality management responsibilities.

<table>
<thead>
<tr>
<th>Functional Group</th>
<th>Area of Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Design</td>
<td>Responsible for development and implementation of BMPs through the project planning and design phase for construction projects.</td>
</tr>
</tbody>
</table>
Storm water training modules have been developed for the functional groups by Caltrans to provide a comprehensive overview of storm water pollution prevention concepts and practices. The curriculum focuses on stormwater pollution prevention, BMP design and implementation, and procedures. The delivery mechanisms include classroom and field training modules, webinars, and audio-visual presentations posted on websites, as appropriate. As noted above, in order to adapt to evolving stormwater technology and regulations, the module topics will be updated, as needed, to reflect modifications to the Caltrans Stormwater Management Program.

The District Work Plans (DWPs) will include a list of the pertinent training modules and targeted staff to attend each module.

### TABLE 6-2: SUMMARY LIST OF EXISTING AND PROPOSED TRAINING MODULES BY DIVISION

<table>
<thead>
<tr>
<th>Functional Group</th>
<th>Area of Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Responsible for development and implementation of BMPs relating to construction projects from the award stage through completion.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Responsible for development and implementation of BMPs relating to the maintenance of highways and related facilities.</td>
</tr>
</tbody>
</table>

1 The modules may be modified, combined or deleted in order to meet the intent and needs of the training program.
<table>
<thead>
<tr>
<th>Division</th>
<th>Training Module (E: Existing; P Proposed)</th>
<th>Target Audience</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Analysis</td>
<td>An Introduction to Stormwater (P)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Environmental Analysis&lt;br&gt;Equipment&lt;br&gt;General Staff&lt;br&gt;Maintenance&lt;br&gt;Management&lt;br&gt;Planning and Design&lt;br&gt;Right of Way&lt;br&gt;Stormwater Coordinators&lt;br&gt;Traffic Operations&lt;br&gt;Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Environmental Analysis&lt;br&gt;Stormwater Coordinators</td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td></td>
<td>Stormwater Quality Fundamentals and Monitoring (P)</td>
<td></td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td>Design</td>
<td>Permanent Erosion Control Training (E)</td>
<td>Maintenance&lt;br&gt;Planning and Design&lt;br&gt;Stormwater Coordinators&lt;br&gt;Construction&lt;br&gt;Encroachment Permits</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Construction Site BMP Training for Design (E)</td>
<td></td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Erosion Prediction with Revised Universal Soil Loss Equation (RUSLE2) (E)</td>
<td></td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Project Planning Design Guidance Training (E)</td>
<td></td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Water Quality Treatment BMP Design (E)</td>
<td></td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Stormwater Data Report Training (E)</td>
<td></td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td>Construction</td>
<td>Stormwater Refresher Training (E)*</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Water Pollution Control Compliance on Construction Sites for Resident Engineers (E)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Stormwater Best Management Practices Training Videos (P)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Construction General Permit Qualified SWPPP Developer (QSD)/Qualified SWPPP Practitioner (QSP) Caltrans-specific Training (P)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>Minimum of 8 hours</td>
</tr>
<tr>
<td></td>
<td>Stormwater Quality Monitoring and Plan Preparation (E)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Inspecting for Water Pollution Control on Construction Sites (E)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Field Erosion Control (E)</td>
<td>Construction&lt;br&gt;Encroachment Permits&lt;br&gt;Stormwater Coordinators</td>
<td>8 hours</td>
</tr>
</tbody>
</table>
### Training and Public Education Program

<table>
<thead>
<tr>
<th>Division</th>
<th>Training Module (E: Existing; P Proposed)</th>
<th>Target Audience</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advanced BMP Training (E)</td>
<td>Construction</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Introduction, Laws and Regulations, the Erosion Process (E)</td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encroachment Permits</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>Advanced Construction Site BMPs and Field Applications (E)</td>
<td>Construction</td>
<td>16 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water Pollution Control Contract Administration, Inspection and Maintenance on Construction sites (E)</td>
<td>Construction</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Management of Construction Site Dewatering Operations (E)</td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Construction</td>
<td>6 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water Quality Sampling and Analysis on Construction Sites (E)</td>
<td>Construction</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>How to Review a SWPPP and Water Pollution Control Program (E)</td>
<td>Construction</td>
<td>8 hours</td>
</tr>
<tr>
<td></td>
<td>Construction Management Training (E)</td>
<td>Encroachment Permits</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>Stormwater Management for Maintenance Activities (refresher) (E)*</td>
<td>Equipment</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilities Pollution Prevention Plan (FPPP) Development and Implementation (P)</td>
<td>Equipment</td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td></td>
<td>Implementation of the Maintenance Compliance Program (P)</td>
<td>Maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
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<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Using the Maintenance Databases (Roadway Erosion Inventory, Storm Drain System Inventory, IC/ID, Maintenance Facility and Activity) (P)</td>
<td>Maintenance</td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td></td>
<td>Implementation of the IC/ID Program (P)</td>
<td>Environmental Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>How to perform Maintenance Facility Inspections and Review Maintenance Facility Inspection reports</td>
<td>Maintenance</td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stormwater Coordinators</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equipment</td>
<td></td>
</tr>
<tr>
<td>Operations (Office of Encroachment Permits)</td>
<td>Encroachment Permit Staff Training (P)</td>
<td>Encroachment Permits</td>
<td>Minimum 4 hours</td>
</tr>
<tr>
<td>ROW</td>
<td>ROW Stormwater Management (E)</td>
<td>Stormwater Coordinators</td>
<td>12 hours</td>
</tr>
</tbody>
</table>
6.2.3 Training Module Frequency

Comprehensive introductory courses will be attended by new targeted employees and other targeted employees that did not receive the training in the first year. Training is repeated as needed based on changes in regulation and lessons learned.

6.2.4 Training Plan and Module Effectiveness Assessment

As part of the Annual Report, Caltrans will evaluate and assess the effectiveness of this training program. A summary of its assessment will be provided in the Annual Report along with any recommendations to revise the training, if necessary, to ensure it is effective.

A summary of the training modules conducted during the reporting period will be provided in the Annual Report. The summary will include the date and location of training, number in attendance a copy of the attendance sheet, and a copy of the agenda or module handouts. As part of the Annual Report, the Department will evaluate and assess the effectiveness of this training program. A summary of its assessment will be provided in the Annual Report along with any recommendations to revise the training, if necessary, to ensure it is effective.

The annual review will evaluate pre- and post-module surveys, feedback and suggestions from the training sessions, training methods, module objectives, compliance monitoring evaluations, and other general training requirements for accuracy, appropriateness, effectiveness, and adequacy. The content and module materials will also be coordinated with other divisions within Caltrans to ensure that policies, procedures, and techniques are compatible and consistent with stormwater requirements and other regulations that may apply. The training modules and materials and District Work Plans will be updated as necessary based on the review.

A summary of the evaluation and any recommendations for revisions will be included in the Caltrans Annual Report, along with summary of the training modules conducted during the reporting period. The latter summary will include the date and location of training, number in attendance, a copy of the attendance sheet, and a copy of the agenda or module handouts.

6.3 CONSTRUCTION CONTRACTORS

The Department ensures that construction contractors have a Water Pollution Control (WPC) manager that has an appropriate level of qualification. For projects covered by the Construction General Permit, the WPC manager must be a Qualified SWPPP Developer per the requirements of the CGP. For projects that require the development of a Water Pollution Control Plan, the WPC manager must be either a Qualified SWPPP Developer or a Qualified SWPPP Practitioner as defined by the CGP.
The Department’s contract specifications (Caltrans Standard Specifications 2010 Section 13-1.01D(2) Training) require that all contractor employees must receive initial water pollution control training before starting work at the job site. The WPC manager is responsible for ensuring all contractor employees have current water pollution control training (Caltrans Standard Specifications 2010 Section 13-1.01D(3)(c)). This training is tracked at the project level on Caltrans form CEM 2023 and 2024, Stormwater Training Record and Log.

The Department’s contract specifications also require contractor personnel that are project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work, must be provided stormwater training in the following subjects:

- Water pollution control rules and regulations
- Implementation and maintenance for:
  - Temporary soil stabilization
  - Temporary sediment control
  - Tracking control
  - Wind erosion control
  - Material pollution prevention and control
  - Waste management
  - Nonstormwater management

Contractor personnel that are project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work must also conduct weekly training meetings covering:

- Deficiencies and corrective actions for water pollution control practices
- Water pollution control practices required for work activities during the week
- Spill prevention and control
- Material delivery, storage, usage, and disposal
- Waste management
- Nonstormwater management procedures

Training for personnel who collect water quality samples must include:

- Construction Site Monitoring Program review
- Health and safety review
- Sampling simulations

The Department’s contract specifications also require the contractor to submit a Storm Water Annual Report. The Storm Water Annual will include documentation of training for individuals responsible for the following:
Permit compliance
BMP installation, inspection, maintenance, and repair
Preparing, revising, and amending the SWPPP

Contractor personnel that are involved in stormwater BMP installation and maintenance also have access to the department’s stormwater best management practices training videos. These are a series of self-paced interactive training videos designed to improve construction staff understanding of the construction stormwater program, temporary construction stormwater BMPs and construction stormwater compliance activities.

6.3.1 Informational Exchange Sessions

Caltrans may hold informational sessions for construction contractors to raise their awareness and understanding of Caltrans procedures and protocols for complying with the Statewide Construction General Permit as well as the Department’s Stormwater Permit. The Department uses three types of informational exchange sessions to describe storm water pollution prevention concepts and practices and to explain techniques for preparing SWPPPs and WPCPs for construction activities.

- **Informational Exchange #1, Storm Water Permit Compliance Requirements, Pre-Bid Meeting:** Pre-bid meetings may be conducted on selected projects. The Project Engineer provides general information to construction contractors regarding the requirements in the Permit and the Statewide SWMP that apply to the subject project (i.e., the project on which the contractors are considering submitting bids). Topics to be discussed include environmental commitments and permits, and water pollution control requirements.

- **Informational Exchange #2, Storm Water Permit Compliance Requirements, Pre-Construction Meeting:** Caltrans contract specifications require the contractor to attend a preconstruction meeting with the resident engineer. One of the topics discussed at the preconstruction meeting is water pollution prevention and the SWPPP or WPCP requirement for the project. Preconstruction meetings include the resident engineer, contractor’s superintendent, subcontractors, and specialists. Caltrans will also notify the appropriate RWQCB of the pre-construction meeting to allow an RWQCB representative to be at the meeting to review and discuss the water quality issues relating to the construction project. The contractor is advised to submit their water pollution control plan at the meeting (or prior to).

The topics covered in informational exchanges will be updated as needed to reflect modifications to the Department’s storm water management program.

6.3.2 Outreach to Contractor Groups

The Department regularly works with contractor organizations on issues related to storm water and implementation of the Department’s storm water management program.
6.3.3 Informational Bulletins
The Department prepares and distributes informational bulletins in the form of topical bulletins to inform construction contractors of recent storm water quality developments and requirements for construction projects.

6.3.4 Future Training
The Department has developed and implemented a construction contractor informational program to educate contractors about developing and implementing a SWPPP, the importance of complying with the SWPPP, inspection and reporting requirements, the role of the RWQCB in the SWPPP and construction project, and the consequences associated with not adequately implementing the SWPPP.

6.4 PUBLIC EDUCATION PROGRAM
The Department currently uses a variety of methods to educate the public about the importance of managing storm water. The goals of the existing program are to:

- Inform the public regarding the storm water quality issues that pertain to the Department’s properties, facilities and activities.
- Change public behavior regarding the release of potential pollutants (e.g., litter, spilled loads and oil leaks).

This outreach program consists of a variety of written materials, monthly and quarterly bulletins, a Web site expansion, workshops and the Department’s Adopt-a-Highway Program, as described below. The written materials are designed to appeal to the general public (in easy-to-read formats) while providing technical information on selected Department projects and activities. Some Districts have undertaken cooperative public educational programs with local municipalities. These are described in more detail in the individual District Work Plans.

An expanded, statewide public education program will be considered, and implemented as directed by the SWRCB following completion of the research program outlined in Section 6.4.1.

The Department installs “No Dumping” and “Litter Fine” signs (see Litter and Debris and Anti-Litter Signs in Section 2 of the Guidelines) at selected locations on highways and freeways. Stenciled warnings prohibiting discharges to drain inlets at state-owned park-and-ride lots, rest areas, vista points and other areas with pedestrian traffic are also used to increase public awareness (see Storm Drain Stenciling in Section 2 of the Guidelines).

6.4.1 Public Education Research
The Department has initiated a public education research study to determine the effectiveness of public education in reducing highway litter. Litter was chosen as the focus of the study because it is seen by the Department as the major pollutant resulting from highways that has the greatest potential for reduction from the implementation of a public education program directed at users of the highway system.
During the first year of the study (winter of 00/01), baseline data on highway litter were collected. During years two and three of the study (Fiscal Years 01/02 and 02/03), methods will be developed and implemented to inform and educate the public on ways of reducing highway litter. The sites selected to be monitored are subject to the review and approval of the Executive Director of the SWRCB.

The results of the education will be determined by directly measuring the reduction of litter at designated litter monitoring sites monitored during the first year (winter of 00/01). In addition to measuring the reduction of litter due to public education, a public opinion survey will determine if the public has changed its behavior toward litter on highways.

The Fresno metropolitan area has been selected as the location for this research because this is seen as a definable area with a stable population that is not heavily influenced by outside sources like most major metropolitan areas in California. This will allow the public education methods to be focused and to gain an understanding of the best methods of educating the public.

Other Resources

The Department will investigate other state, federal, and local agency public outreach programs to evaluate partnering opportunities relating to storm water quality. Results of the Department’s investigations conducted and opportunities pursued or implemented during the reporting period will be provided in the Annual Report.

6.4.3 Informational Brochures

The Department periodically issues brochures covering many pertinent topics in storm water management and research. The brochures are distributed to the general public at public meetings, members of the legislature, members of the press, Department personnel, public agency personnel, and other interested parties throughout the state. The brochures are also available through the Web site discussed in Section 6.4.4. To date, the issued brochures include:

- **Storm Water Program Brochure**: Describes the Department’s overall storm water program and how it is implemented to meet NPDES requirements.
- **Research and Monitoring Studies Brochure**: Describes all categories of storm water research and monitoring studies, both in progress and planned.
- **San Diego Water Quality Control Study Brochure**: Describes the major components of this BMP-based study underway in the Department’s District 11 (San Diego).
- **Litter Management Brochure**: Describes the Department’s Litter Management Program related to storm water quality and the Litter Management Pilot Study being conducted.
- **Compliance Brochure**: Describes permit compliance monitoring as carried out by the Department.
• **BMP Pilot Studies Brochures:** Briefly summarizes the BMP pilot retrofit projects being conducted in the Department’s Districts 7 (Los Angeles) and 11 (San Diego).

• **BMP Pilot Studies Technical Brochure:** Describes the BMP pilot studies in more detail and includes technical retrofitting information and photos for each BMP site.

• **Soil Stabilization Brochure:** Describes erosion control and soil stabilization projects related to effectiveness, pilot studies and staff training.

• **Pathogens in Storm Drain Discharges Brochure:** Describes the urban watershed study in San Diego County for pathogens in storm drain discharges.

• **North Coast Studies Brochure:** Describes current herbicide and road crossing studies along the North Coast related to aquatic wildlife and habitat (in progress).

• **GIS/Database Projects Brochure:** Describes all current GIS projects and available databases, such as the BMP Pilot Study Database being developed (in progress).

A list of the informational brochures developed and distributed by the Department will be included in the Annual Report.

### 6.4.4 Web Site

An Internet Web site was created for the Department’s Storm Water Management Program that is accessible through the Department’s home page Web site. The Web site provides information on all storm water outreach activities, including brochures, bulletins and workshops as well as bulletins on related topics, information related to construction and maintenance activities, and links to key related sites.

The site address is: [http://www.dot.ca.gov/hq/env/stormwater/index.htm](http://www.dot.ca.gov/hq/env/stormwater/index.htm)

### 6.4.5 Adopt-A-Highway Program

The Department’s “Adopt-A-Highway” program is an opportunity for volunteers to make a tangible contribution to community and roadside aesthetics and is a way to inform the public about the storm water problems related to illegal dumping of litter and debris. As part of this program, signs are posted along roadways acknowledging groups that have volunteered to plant wildflowers, trees and/or shrubs, collect litter or remove graffiti from structures. This program serves to demonstrate the local public’s commitment to keeping highways clean and acts as a reminder to drivers and passengers who see the volunteers and the signs. A Department Adopt-a-Highway Program Brochure is available at [http://adopt-a-highway.dot.ca.gov](http://adopt-a-highway.dot.ca.gov). This brochure describes the kind of highway adoption opportunities available and includes a permit application.

### 6.4.6 Storm Drain Stenciling

The Department currently stencils messages at storm drain inlets located at highway facilities such as park-and-ride lots, rest areas and vista points to assist in educating the public about storm water runoff pollution. The details of this maintenance BMP are included in Section 2.14 of the Guidelines. This program will be expanded to include stenciling of storm drains on The...
Department’s roads and highways that traverse through cities, towns, and communities with populations 10,000 or more, or less if the area is covered by a MS4 permit. The Department may work in partnership with the local agency to implement this expanded element of the stenciling program.

By January 1, 2005, the Department will complete its stenciling program for all existing storm drain inlets described above. All new inlets in the areas described above will be stenciled when constructed. The stencils will be maintained by the Maintenance Functional Unit or through agreements with local agencies. Extending the due date to complete storm drain stenciling from January 1, 2003 to January 1, 2005, will ensure the Department is able to acquire sufficient resources to stencil all storm drains.

The Department will report the progress of its existing storm drain system stenciling program in the Annual Report. The progress report will identify the number and location of the drains stenciled and will report the number of drains stenciled by local agencies during the reporting period. The Department will also report the location and number of all newly constructed drains stenciled during the reporting period.

### 6.4.7 Technical Workshops

Periodically, the Department will host or co-host public workshops that focus on specific storm water topics. These workshops are for the purpose of discussing storm water topics currently being researched by the Department and others and offer the opportunity to share information and facilitate a collective focus on potential solutions to the challenges faced by municipal dischargers.

These workshops are held on an as-needed basis, but the expectation is that on average, two per year will be held.
SECTION 7 MONITORING AND RESEARCH PROGRAM

7.1 OVERVIEW
This section describes the monitoring and research program developed by the Department to provide information on storm water pollutants, evaluate existing and potential BMPs, and meet monitoring and assessment requirements of the Permit. This information is used by the Department to evaluate the Statewide SWMP (see Section 8).

This section is organized as follows:

- Section 7.2 provides the background and objectives of the Monitoring and Research Program.
- Section 7.3 discusses the various teams that execute the Monitoring and Research Program efforts.
- Section 7.4 identifies the reports that are prepared by the Monitoring and Research Program teams.

7.2 BACKGROUND
The Department’s Monitoring and Research Program provides information on the characterization of discharges from the Department’s operations, facilities and storm drain systems, information on the discharge of pollutants of concern, and the performance of storm water controls. This information is used to develop the program, assess the effectiveness of the SWMP, and establish the need for new or improved BMPs. The Monitoring of existing or pilot project BMPs helps in the evaluation of existing and potential BMPs.

The Monitoring and Research Program is used to further characterize pollutants (e.g., particle size, litter or pathogens) and to test control technologies. Other support activities include development of models and compiling key data necessary to make water quality decisions.

The Department has organized the Monitoring and Research Program under four tasks. This organizational structure combines and renames tasks formerly identified for the Monitoring and Research Program. The tasks were reorganized to consolidate similar activities into four teams in place of the original seven teams. This provides some cost economies, reduces duplication, and enhances communication. No research items were deleted; however, some were combined. The modeling efforts were incorporated into Monitoring and Water Quality Research. Litter Management was incorporated into Storm Water Treatment Technology Research. Research Program Management is now accomplished by the leads of the four remaining teams. These current organizational tasks include:

- Monitoring and Water Quality Research;
- Watershed Planning;
- Erosion Control; and
- Storm Water Treatment Technology Research.
The Department has created project teams to address each of these tasks. In the following section each project team is described, and a short summary of the monitoring/research effort being conducted under the project team is provided.

### 7.3 PROJECT TEAMS

Project teams managed under the Water Quality Program are assigned to undertake the four previously noted tasks. Each team is led by a Department staff member. Team members may include other Department staff, university researchers, expert consultants and representatives of other storm water agencies and environmental interest groups.

#### 7.3.1 Monitoring and Water Quality Research Team

Understanding the characteristics of storm water quality is paramount to developing and implementing an effective Storm Water Management Program. The Department, through its monitoring and water quality research efforts, is providing the foundation for long-term management decisions. To provide this understanding, the Monitoring and Water Quality Research Team is overseeing activities focused on characterizing storm water runoff from the following facilities:

- Highways;
- Maintenance yards;
- Parks and ride lots;
- Rest areas;
- Toll plazas and weigh stations;
- Construction sites; and
- Discharges from the storm drain systems into receiving waters or other municipal storm drain systems.

The Department also conducts special studies as identified by the RWQCBs or SWRCB such as the monitoring of acceleration/deceleration locations.

In the support of this activity, the Team has established and annually updates the following essential manuals and supporting tools:

- Storm Water Monitoring Protocol Guidance Manual;
- Data reporting protocol;
- Electronic data validation software;
- Data analysis tool; and
- Database and data management.

The Team also manages all water quality research and monitoring data. The Team established a Web-based Water Quality Database to store and retrieve the Department’s monitoring data. This
team developed a load model to predict the pollutant loading from the Department’s facilities around the state. Annually revised pollutant event mean concentrations (EMCs) are used to assess mass loading from the Department’s facilities. The Team provides major input to the planning and phasing of the Department’s monitoring activities. The Team also produces software tools for use by the Department’s environmental planners and storm water managers to address Permit obligations and incorporate water quality considerations at various steps in the transportation project planning process. The current water quality planning tool is available on the Web and can identify:

- All hydrological subareas and downstream subareas in California;
- Water quality characteristics of all the Department’s facilities and estimated storm water runoff loads;
- Water quality standards downstream of the hydrological subareas; and
- 303(d) listed waterbodies by hydrological subarea.

The planning and modeling tools developed by the Team provide support services and are used by the Department’s District offices in watershed planning.

The practical application of the Department’s Web-based water quality tool including the pollutant load prediction model was demonstrated to the California SWRCB staff on September 4, 2001. At the request of the SWRCB, a more user-friendly version of the load model is being prepared and will be shared with all RWQCB’s staff for their use and comments. In addition, as more storm water characteristics become available, the Team will refine the pollutant EMC on a regional basis to better predict mass loading throughout the state.

The Team is also responsible for preparation of the following annual reports:

- The Three-Year Action Plan: This document provides the planning element of the Monitoring and Research Program and describes activities and studies to be conducted by the Department’s project teams during the next three-year period, including details of the upcoming rainy season’s monitoring efforts. This report also provides the information required in the statewide Permit for the Plan of Characterization;
- Characterization and Monitoring Plan: This document provides the sampling and analysis element of the Monitoring Program and summarizes various topics in storm water monitoring activities, including sampling locations, sampling frequencies and methods, analytical methods, quality assurance/quality control, and data evaluation;
- Annual Summary Report: This document provides a summary of the status and principal findings of each study conducted during the previous year; and
- Annual Data Summary Report: This document provides summary of all monitoring data collected during each monitoring season.

7.3.2 Watershed Planning Team

A Watershed Planning Team has been created to assist various Districts in watershed planning efforts. This team will also work cooperatively with RWQCB staff during the development of its...
watershed studies and evaluation of its results. During the development of the studies, the
Department will seek RWQCB input on monitoring site selection and sampling and analysis
plans. The Department will review its results and recommendations of the study with the
RWQCB to help establish the appropriate BMPs to be considered on a watershed basis.

Research-focused watershed planning activities currently under way include a study in the
Navarro River watershed in Mendocino County that examines impairments, pollutants causing
these impairments and potential controls.

7.3.3 Erosion Control Team

The Erosion Control Team evaluates the effectiveness of existing erosion control measures in
terms of reducing sediment loads in discharges. The team also identifies potential upgrades to
slope design criteria and erosion control measures and evaluates their relative effectiveness. The
team provides expert assistance to the Districts in the form of field reviews, recommendations
and guidance development. In addition, the team is investigating techniques to more effectively
establish and maintain vegetation during the initial short-term first growth and for long-term
establishment.

7.3.4 Storm Water Treatment Technology Team (SWTTT)

The Storm Water Treatment Technology Team initiates and manages special BMP pilot studies
around the state. These studies are designed to evaluate the effectiveness of selected treatment
BMPs in reducing constituents of concern, constituent removal efficiency, technical feasibility,
and the cost of retrofitting existing facilities. The Team also identifies potential innovative
treatment BMPs that address the specific storm water constituents expected to cause exceedances
of water quality standards. The results from both the pilot studies and the new concept BMPs are
used to help define the implementation scenarios available to the Department to address specific
pollutants within various watersheds.

Litter has been identified as a high-priority pollutant in some areas of the state through TMDLs
and 303(d) listing. The Department has initiated an effort to better understand the nature of litter
on the Department’s highway system and how this litter impacts water quality. The Department
is also investigating methods to manage litter to improve water quality. The key focus of the
Team’s activities in this regard is field testing and evaluation of litter management practices to
assess their effectiveness in reducing the litter that is discharged from the Department’s storm
water conveyance systems.

Most of the BMPs pilot-tested are assessed for a minimum of two years. In assessing the
effectiveness of these treatment BMPs, the Department considers constituent removal, operation
and maintenance requirements, costs (both capital and Operation and Maintenance [O&M]) and
overall performance.

BMPs are evaluated for compliance with MEP and water quality standards. This information is
provided to the Department’s SWATs for consideration of potential BMP deployment or for
conducting pilot studies to further investigate these potential BMPs. The status of research
activities will be documented in the “Storm Water Treatment Technology Research Status
Report.”
The New Technology Report will annually summarize assessments to date of new or innovative BMPs. This report will include consideration of information coming from implementation and research efforts by the Department and others.

7.4 REPORTING

Provisions K.1 and K.2 of the permit require the Department to conduct discharge and receiving water monitoring. By April 1 of each year, the Department is to submit a monitoring and reporting program, subject to the acceptance of the Executive Director of SWRCB, that will be implemented in the subsequent reporting period. At a minimum, the Department will submit a detailed draft proposed program at least 60 days prior to April 1 to the SWRCB and begin meeting with SWRCB and RWQCB staff during the 60-day period to review and revise the plan as needed to ensure the proposed program is acceptable to the Executive Director of the SWRCB, when submitted on April 1.

Reporting on the Monitoring and Research Program is addressed by the different project teams. A summary of the reports and project teams is shown in Table 7-1. Table 7-1 has been revised to indicate that Water Quality and Load Assessment Reports are now Web-based submittals.

<table>
<thead>
<tr>
<th>TABLE 7-1: SUMMARY OF REPORTS PREPARED FOR THE MONITORING AND RESEARCH PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of Report</strong></td>
</tr>
<tr>
<td>Storm Water Monitoring Program: Annual Summary Report FYXX</td>
</tr>
<tr>
<td>Storm Water Monitoring Program: Characterization Monitoring Plans, FYYY</td>
</tr>
<tr>
<td>Storm Water Monitoring Program: 3-Year Action Plan, FYXX through FYZZ</td>
</tr>
<tr>
<td>Water Quality Assessment (Web-based Submittal)</td>
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<tr>
<td>Load Assessment (Web-based Submittal)</td>
</tr>
<tr>
<td>Storm Water Treatment Technology Research Status Report, FYXX</td>
</tr>
</tbody>
</table>
All reports submitted to the SWRCB and RWQCBs will contain sufficient information to ensure staff can make professional judgments on the acceptability of the proposed plan or study findings. The reports are to contain a summary of the proposed study or findings and a summary of the sampling and monitoring results. The report will also contain a detailed report providing raw data, quality control and assurance data and results, evaluation and assessment tools and analysis, analytical results, details on site selection and rejection, and other data deemed pertinent to the study or as requested by the SWRCB or RWQCB.
SECTION 8  PROGRAM EVALUATION

8.1 OVERVIEW

This section describes how the Department currently evaluates its storm water quality program. The overall strategy of the Department for reducing pollutants to the MEP and protecting receiving waters involves the use of effective storm water management practices and a process of continuous program improvement and refinement. That process will be supported by implementing the monitoring described in Section 7 and the evaluation described herein. Reporting is discussed in Section 9. As part of its storm water management program, the Department regularly reviews its activities, inspects its facilities, oversees and guides its personnel and conducts focused studies to obtain information that supports responsible management and allocation of the resources available to implement storm water quality efforts.

The remainder of this section is organized as follows:

- Section 8.2 describes the establishment of evaluation and assessment tools and measurable goals to be incorporated into the SWMP.
- Section 8.3 describes how the Department conducts program evaluation of its storm water management activities and decides how the program should be revised or otherwise refined to make the best use of available resources.
- Section 8.4 describes the Department’s self-audit activities and enforcement response plan process.

8.2 EVALUATION AND ASSESSMENT TOOLS AND MEASURABLE GOALS

In consultation with the SWRCB and RWQCBs, the Department is developing appropriate program evaluation and assessment tools and establishing measurable goals for SWMP implementation. The evaluation and assessment tools and goals will be implemented by April 1, 2002, and will be used for the program evaluation and assessment conducted for the Annual Report. The tools and goals will be amended or revised as needed when future revisions to the SWMP would require new or revised tools or goals be developed and implemented (also see Section 8.4).

8.3 STORM WATER MANAGEMENT PROGRAM EVALUATION, OVERSIGHT AND ASSISTANCE

The primary mechanism for accomplishing program evaluation and ensuring that front line personnel have adequate assistance to be successful is the day-to-day supervision by the Deputy District Director (or Regional Manager). The Department’s management provides oversight to ensure compliance with the Statewide SWMP. Such oversight includes observing and evaluating Design and Construction personnel as they implement the requirements of the Statewide SWMP on new projects and Maintenance Division personnel as they conduct highway maintenance activities.
The Deputy District Director (or Regional Manager) for Design supervises the District’s Project Engineers to ensure compliance and, as needed, brings in assistance from within the District or from Headquarters. The Deputy District Director (or Regional Manager) for Construction supervises the District’s REs to ensure compliance and, as needed, brings in assistance from within the District or from Headquarters. The Deputy District Director (or Regional Manager) for Maintenance supervises the District’s Area Superintendents to ensure compliance and, as needed, brings in assistance from within the District or from Headquarters.

In addition to day-to-day supervision by District managers, the Department’s Headquarters program management (i.e., Design, Construction and Maintenance) provides focused follow-up checks with their counterpart District functional units on a regular basis. These checks involve:

- On-site visits;
- Periodic meetings; and
- Functional reviews of District activities by Headquarters.

Feedback from these management oversight activities assists the Department in addressing the following types of questions:

- Is the Department properly integrating storm water management practices into the Design, Construction and Maintenance Programs?
- Are the organizational structures and procedures functioning effectively and efficiently?
- Are the prescribed procedures for incorporating practical BMPs into daily activities working properly?

### 8.3.1 Internal Multi-Functional Meetings

The Water Quality Program staff will host periodic meetings throughout the year of the Storm Water Quality Advisory Teams (SWATs) and the District Storm Water Coordinators to review progress in Statewide SWMP implementation. These meetings identify the key issues noted by the individual SWATs. Areas of concern and recommendations for improvement that are discussed in these meetings are used in preparation of the Annual Report (see Section 9.2).

In addition to the SWAT meetings, the Department holds internal meetings as needed to review progress in Statewide SWMP implementation to identify areas of concern and problems and to suggest improvements in implementation of the Statewide SWMP. The Project Design SWAT (including Headquarters Project Delivery representatives and the District Project Delivery Storm Water Coordinators) meets to discuss and make revisions to the design and construction aspects of the Statewide SWMP. The Maintenance SWAT (including Headquarters Maintenance representatives and the District Maintenance Storm Water Coordinators) meets to discuss and make revisions to the maintenance aspects of the Statewide SWMP. The Water Quality SWAT (including Headquarters Water Quality Program representatives and the District NPDES Storm Water Coordinators) meets to discuss and make revisions to the treatment control aspects of the Statewide SWMP.
8.3.2 External Meetings

Regionally focused, quarterly meetings coordinated by the Headquarters Water Quality Program staff and in cooperation with staff of the SWRCB are to be held with one or more of the RWQCBs and representative Districts. The meetings will be rotated around the state as established by the Water Quality Program or at the request of the Districts, RWQCBs or the SWRCB. The purpose of these meetings is to discuss regionally specific issues and requirements that arise from implementing the Statewide SWMP.

The Districts (either individually or in groups) periodically hold meetings regarding implementation of the Statewide SWMP with the RWQCBs to discuss regionally specific issues.

8.4 SELF-AUDIT

The goals of the Department self-audit are:

- To evaluate the efficiency and effectiveness of the activities outlined in the Statewide SWMP;
- To provide a sound basis for re-directing or refining such activities;
- To recommend ways to revise or refine the Statewide SWMP, as needed; and
- To assess compliance with Permit and program requirements.

The Department’s self-audit serves as a quality control mechanism to help the Department determine how well the activities identified in this Statewide SWMP are being implemented. The self-audit is viewed as independent from line management. It will be carried out by the Water Quality Program under the direction of the Director. The results of the self-audit will be included in the Annual Report.

8.4.1 Construction Compliance Monitoring – Oversight Inspection Program

Construction Compliance Monitoring is performed by the Water Quality Program with the following objectives:

- Evaluate compliance of construction projects statewide with the requirements of the Permit;
- Report compliance status to the Department’s management; and
- Evaluate BMP implementation trends, suggest areas of improvement, and identify new BMP implementation methodologies.
- Provide quality control, quality assurance, and independent quality assurance for construction projects to ensure they are implemented according to the following matrix, which defines the activity, responsible person/party, authority, and protocols and frequencies. Responsible parties include the contractor, the RE, the District Construction Stormwater Coordinator, and an independent third party (consultant) (see Appendix A for the details on the Enforcement Response Program).
8.4.1.1 Project Selection Criteria

Each year, the Construction Compliance Evaluation Plan (CCEP) will describe how the construction projects to be reviewed during the ensuing year will be identified. This determination may involve extra emphasis (prioritization) on projects of a certain size or in a particular geographic area. However, every year, all significant construction projects will be reviewed and rated that pose a significant risk to water quality (Risk Level 3) or are located within a 303(d) listed watershed. Reviews will be unannounced if possible and conducted during project site normal working hours. The inspectors shall have a QSD certification and shall not have been involved in the preparation of the construction documents for the site.

8.4.1.2 Project Review Criteria

Projects are reviewed for the overall effectiveness of their storm water pollution prevention implementation and compliance with Permit requirements. During a construction project stormwater review, the implementation of soil stabilization controls, sediment controls, sediment-tracking controls, wind erosion controls, non-storm water controls, waste management and materials pollution controls and required documentation are reviewed. Project Construction Stormwater Reviews (CPSR) are conducted year round with emphasis placed on seasonal considerations (e.g. soil stabilization and sediment controls are stressed). The compliance status
of the project is documented on a standardized Construction Project Stormwater Review Report (CPSRR), which is modified annually or as needed, and is an element of the CCEP. A CPSRR documents the adequacy of the BMPs observed. Adequacy of BMPs is summarized in the review report and an overall project rating is assigned based on the review results.

**8.4.1.3 Compliance Enforcement and Reporting Protocol**

The CPSRR and project ratings are provided to the project RE at the close of the review. Reports and ratings are also made available within one week or sooner to the District Storm Water Coordinator and District Management. Review reports will include photographic documentation and all reports will be signed by the inspector. When review reports reflect observed deficiencies, a corrective action plan is automatically generated. The action plan provides for a listing of each deficient BMP, its location and type, the required corrective action, and corrective action completion verification fields. The action plan is provided to the project RE. All corrective action plans require the inspector’s signature. Projects assigned a corrective action plan will be revisited verifying corrective action is complete. Should a revisit reflect any incomplete or inadequate corrective action a subsequent corrective action plan will be submitted to the project RE and will automatically be elevated for action as needed through four levels of authority, which include involvement of the Construction Manager, Deputy District Director, District Director, and ultimately the Department (Caltrans) Director.

In general, the definitions for minor, major, significant, and critical findings are:

**Minor**
- Little to no likelihood of a discharge in violation of an NPDES permit

**Major**
- Potential for a discharge from the construction site in violation of an NPDES permit but the discharge remains within the State’s right-of-way.

** Significant**
- Potential for a discharge from the construction site in violation of an NPDES permit and the discharge is to outside the State’s right-of-way.

**Critical**
- Discharge from the construction site in violation of an NPDES permit and the discharge is to Waters of the State or Waters of the United States.

Projects identified as having significant or critical findings will address those findings immediately, and they are re-inspected to ensure improvements have been made. The construction compliance review and enforcement response process is depicted in Figure 8-1. All documentation discussed in this section will be retained with the project SWPPP and for a period of three years following completion of construction.
Projects identified as having major or critical deficiencies are reported to the District Construction Storm Water Coordinator and District Construction management immediately. The RE is responsible for ensuring the deficiency is corrected as soon as practicably possible. The RE will notify Headquarters immediately upon the deficiency being corrected, and a re-inspection will be scheduled for approximately one week after the notice of deficiency to ensure that the District has adequately addressed the deficiencies. District Construction management is invited to participate in the re-inspection. If, after the re-inspection, no improvement is seen, notice is given to District Construction management again, and another inspection by both District personnel and Headquarters Water Quality Program management personnel is scheduled for one week later. Non-compliance will be elevated for action as needed through four levels of authority, which include involvement of the Construction Manager, Deputy District Director, District Director, and ultimately the Department (Caltrans) Director.

For construction projects that receive complaints regarding runoff discharge quality or other potential violation (including an illicit connection or illegal discharge) of the Permit from Caltrans personnel, the public, EPA, SWRCB or a RWQCB, the process noted in the preceding paragraph will be initiated, except that the results of the inspection(s) will be transmitted to the applicable (initial reporting) agency.
8.4.1.4 Feedback and Program Improvement

Construction project compliance review results and lessons learned are documented and reported to the Department’s personnel using four primary methods:

- **Monthly Electronic Mail:** On a monthly basis, a summary of compliance review results is provided to District and Headquarters management via e-mail. The summary includes an up-to-date listing of project compliance ratings, a description of the projects inspected during the previous month that were identified as having major, significant or critical deficiencies, and other issues of note.

- **District Briefings/Construction Program Briefings:** At the request of District or Headquarters management, briefings on recent compliance review findings are presented for discussion. These briefings serve as a management tool for the District and provide feedback to Headquarters staff for program improvement. In the absence of a face-to-face meeting, the information is transmitted in summary form by electronic mail.

- **Bulletins:** Bulletins will periodically be issued focusing on issues related to Design and Construction.

- **Meetings with District Personnel:** The DEA participates in meetings with District personnel (e.g., Project Engineer Meetings, RE Meetings, Design and Construction Managers’ Meetings) to discuss the findings of the compliance reviews.

8.4.1.5 Inspection Cycle Performance Reports

The Department will develop a Year-End Summary Performance Report. This report shall be provided to the SWRCB with each Annual Report. The reports will include:

- An explanation of site selection and review criteria for projects inspected during the cycle;

- Details of continuous training, including the Design and Construction storm water pollution prevention bulletins published for the period;

- Overall performance assessment, including information pertaining to all unfavorably rated construction projects, a compilation of all ratings received during the cycle, individual BMP effectiveness and BMP implementation evaluation, and a comparison with the results of the previous year;

- BMP implementation trends, including observations of good water pollution control practices and challenges encountered;

- A list of overall challenges and suggested solutions to improve water pollution control; and

- An expanded inspection log that identifies the entire compliance review history of each project inspected during the applicable inspection cycle.

The information contained in the Performance Reports will be considered by the SWATs as part of the process to annually update the SWMP.
A summary of the inspection reports generated by the audits will be provided in the Annual Report. For the purposes of consistency, the FY 2002 Annual Report will include a Summary of Inspection Reports covering an 18-month period. This one-time adjustment from the previous seasonal reporting requirement will adjust the inspection reporting schedule to better match the reporting period for the Annual Report. The Department will work cooperatively with the SWRCB to develop a format for reporting the summary.

Caltrans will also maintain an inventory of all current construction projects during each year as a part of the Year-End Summary Performance Report. The inventory listing is updated once per quarter, and will be made available on the Caltrans website (http://dot.ca.gov/hq/construc/consMap/conskml.php). The inventory includes project information for Caltrans-administered construction projects that are not classified as Minor B projects (currently projects with a Caltrans estimated cost of $117,000 or less) or emergency projects. The inventory includes the following information:

- Description of the type of Construction project (e.g. road, bridge, tunnel, etc.).
- Location of Construction project (including latitude and longitude coordinates).
- Name of Caltrans primary contractor (if any) performing the work.
- Name and telephone number of Caltrans Resident Engineer responsible for oversight of the work, including contractor performance.
- Construction project start date and estimated completion date.
- Estimate of current percent Construction project completion.
- Name of the MS4(s) and/or water body(ies) receiving storm water discharges from the project.

For Caltrans-administered construction projects awarded after April 1, 2012, the projects will be enrolled under the CGP using the Stormwater Multi Application Reporting and Tracking System (SMARTS) developed by the SWRCB. SMARTS will include information regarding the size of the construction project (total number of acres), the date the SWPPP was signed, whether the construction project includes the construction of treatment BMPs, and the name of the MS4(s) and/or water body(ies) receiving stormwater discharge from the project.

**8.4.1.6 Construction Compliance Tracking**

As part of the Construction Stormwater Response Process, the Division of Environmental Analysis will track inspection findings resulting from all construction IA inspections. The following items will be tracked:

- Date of inspections
- Project inspected (i.e. construction project identifier)
- BMPs inspected (i.e. implemented and missing)
- Inspection findings including notation of findings designated as minor, major or critical.
Inspections that cite a “critical” finding will be immediately elevated to ERP Level 2 for resolution.

Follow-up inspections will occur to monitor the status of corrective actions. The following additional information will be tracked for follow-up inspections:

- Date of follow-up inspection
- Status of findings requiring corrective actions
- Resolution method for findings that required corrective action

If a follow-up inspection determines initial corrective actions implemented at the project level to be inadequate, the ERP will be initiated.

### 8.4.2 Maintenance Compliance Monitoring

Maintenance Compliance Monitoring is performed by the Water Quality Program with the following objectives:

- Evaluate compliance of maintenance sites with the requirements of the Permit;
- Report compliance status to the Department’s management; and
- Evaluate BMP implementation trends, suggest areas of improvement, and identify new BMP implementation methodologies.
- Ensure quality control, quality assurance, and independent assurance for construction projects are implemented according to the following matrix defining the activity, responsible person/party, the authority, and protocols and inspection frequencies.
- Responsible parties include the Maintenance Area Supervisor, the District Maintenance Stormwater Coordinator, and an independent third party (see Appendix A for the details on the Enforcement Response Program).
In August of each fiscal year, an Annual Maintenance Compliance Review Plan (AMCRP) is prepared that describes the compliance evaluation criteria, protocols, and reporting methods for the upcoming years’ compliance monitoring program. The AMCRP will be shared with the SWRCB and RWQCBs.

The following key elements of the AMCRP are discussed below:

- Maintenance site selection criteria;
- Maintenance site review criteria;
- Compliance enforcement and reporting protocol; and
- Feedback and program improvement.

The Stormwater Program Enforcement Response Plan defines the typical lines of authority from the Director to the Maintenance Area Supervisor for maintenance activities and facilities. The Maintenance program involves the quality control by the Maintenance Area Supervisor, the quality assurance by the District Maintenance Stormwater Coordinator, and the independent assurance by a third party. The quality control, quality assurance, and independent Assurance procedures follow the same response plan process for the self-audit and escalation of resolution through an Enforcement Response Program (see Appendix A) which could involve, as needed,
the four levels of authority from the Region Manager to the Deputy District Director, the District
Director, and ultimately the Department (Caltrans) Director for enforcement. Corrective action(s)
for program enforcement could include any of the following: focused training, administrative
correction (e.g., BMP installation, resource allocation), and or programmatic corrections (e.g.,
guidance improvements, policies, directives). The responses and completion of actions are
tracked by the DEA with oversight by the CEE. Resolutions of critical issues are elevated
through the enforcement response process, the independent quality assurance program, and
through the WQMAT. Enforcement actions and resolutions are expected to be resolved in a
timely manner.

8.4.2.1 Maintenance Site Selection Criteria

Each year, the AMCRP will describe how the maintenance sites to be reviewed during the
ensuing year will be identified. This determination may involve consideration for maintenance
site size, type of activities, geographical location, etc.

8.4.2.2 Maintenance Site Review Criteria

Maintenance sites are reviewed for overall effectiveness of their storm water pollution
prevention implementation and their potential for pollutant discharge according to procedures are
part of the Maintenance Compliance Program. During an inspection, the implementation of
BMPs, non-storm water management, waste management and disposal controls, and required
documentation are reviewed. Inspections are conducted year round. Compliance status is
documented on a standardized site inspection checklist. As a part of the completed inspection
checklist, the efficiency of the BMPs observed is summarized, and an overall site rating is
assigned based on the inspection results.

8.4.2.3 Compliance Enforcement and Reporting Protocol

Inspection reports and site ratings are developed consistent with the Maintenance enforcement
response process and provided to District Maintenance personnel at the close of the inspection.
Reports and ratings are also made available to the District Storm Water Coordinator and District
management within one week. District Maintenance personnel will utilize data tracking tools
designed to consolidate and analyze information in a standardized manner.

In general, the definitions for minor, major, significant, and critical findings are:

**Minor**
- Little to no likelihood of a discharge in violation of an NPDES permit

**Major**
- Potential for a discharge from the facility or activity site in violation of an NPDES permit
  but the discharge remains within the State’s right-of-way.

**Significant**
- Potential for a discharge from the facility or activity site in violation of an NPDES permit
  and the discharge is to outside the State’s right-of-way.

**Critical**
Discharge from the facility or activity site in violation of an NPDES permit and the discharge is to Waters of the State or Waters of the United States.

Significant or critical findings identified at maintenance sites will be addressed immediately and re-inspected to ensure improvements have been made. The maintenance stormwater compliance review and enforcement response process is depicted on Figure 8-2. A progressive enforcement response will be followed to ensure that noncompliant activities are brought into compliance with the Permit, SWMP, Department guidance, and Maintenance Storm Water Management Program.

The maintenance sites with identified significant or critical findings are reported to the District Maintenance Storm Water Coordinator and District Maintenance management immediately. The Regional Maintenance Manager is responsible for ensuring corrections are performed as soon as practicably possible. The Regional Maintenance Manager will notify Headquarters immediately upon the deficiency being corrected and a re-inspection is scheduled for approximately one week after the notice of deficiency to ensure that the District has adequately addressed the deficiencies. District Maintenance management is invited to participate in the re-inspection. If, after the re-inspection, no improvement is seen, notice is given to District Maintenance management again and another inspection by both District and Water Quality Program management personnel is scheduled for one week later. Non-compliance will be elevated for action as needed through four levels of authority, which include involvement of the Region Manager, Deputy District Director, District Director, and ultimately the Department (Caltrans) Director.
8.4.2.4 Feedback and Program Improvement

Maintenance site compliance review results and lessons learned are documented and reported to the Department’s personnel using four primary methods:

- **Monthly Electronic Mail**: On a monthly basis, a summary of compliance review results is provided to District and Headquarters Management via e-mail. The summary includes an up-to-date listing of maintenance site compliance ratings, a description of the sites inspected during the previous month that were identified as having major, significant or critical deficiencies, and other issues of note.

- **District Briefings/Maintenance Program Briefings**: At the request of District or Headquarters management, briefings on recent compliance review findings are presented for discussion. These briefings serve as a management tool for the District and provide feedback to Headquarters staff for program improvement. In the absence of a face-to-face meeting, the information is transmitted in summary form by electronic mail.
8.4.2.5 Inspection Cycle Performance Reports

A Performance Report will be prepared and submitted with the Annual Report. The reports will include:

- An explanation of site selection and review criteria for sites inspected during the cycle;
- Details of continuous training, including the Maintenance storm water pollution prevention bulletins published for the period;
- Overall performance assessment, including information pertaining to all unfavorably rated Maintenance sites, a compilation of all ratings received during the cycle, individual BMP effectiveness and BMP implementation evaluation, and a comparison with the results of the previous year;
- BMP implementation trends, including observations of good water pollution control practices and challenges encountered;
- A list of overall challenges and suggested solutions to improve water pollution control; and
- An expanded inspection log that identifies the entire compliance review history of each site inspected during the applicable inspection cycle.

The information contained in the Performance Reports will be considered by the Maintenance SWAT in revising the BMPs as part of the process to annually update the SWMP and modify the Maintenance Compliance Program as necessary.

A summary of the inspection reports generated by the audits will be provided in the Annual Report. The Department will work cooperatively with the SWRCB to develop a format for reporting the summary.

8.4.2.6 Maintenance Compliance Tracking

As part of the Maintenance Stormwater Response Process, the Division of Environmental Analysis will track inspection findings resulting from all maintenance IA inspections. The following items will be tracked:
• Date of inspections
• Facility inspected
• BMPs inspected (i.e. implemented and missing)
• Inspection findings including notation of findings designated as minor, major or critical
Inspections that cite a “critical” finding will be immediately elevated to ERP Level 2 for resolution.
Follow-up inspections will occur to monitor the status of corrective actions. The following additional information will be tracked for follow-up inspections:
• Date of follow-up inspection
• Status of findings requiring corrective actions
• Resolution method for findings that required corrective action
If a follow-up inspection determines initial corrective actions implemented at the project level to be inadequate, the ERP will be initiated.

8.4.3 Design Compliance Monitoring
Design Compliance Monitoring is a new SWMP element that will be developed by the Department’s Headquarters’ Project Design Storm Water Advisory Team (PD SWAT) in accordance with the schedule provided in Section 8.4.3.1, and will be implemented by the Districts with the following objectives:
• Evaluate compliance of project planning and design activities with requirements of the Permit and the approved SWMP;
• Identify activities or SWMP elements needing improvement, changes or revisions;
• Identify training needs; and
• Report compliance status to the Department’s management, SWRCB and RWQCBs.

Currently, each District is responsible for implementing a design review process that was developed by the individual District based on local requirements and project needs. The review process is also dependent upon District organization and may be conducted by different functional area staff or teams within each District. Because of this, elements of a District’s compliance review and implementation of the review may vary among the Districts. The Design Compliance Monitoring that will be implemented through the SWMP is intended to address this variability. It will be developed by the PD SWAT, implemented through the Districts, and will require documentation and reporting of the review findings to Headquarters (HQ) and/or the Annual Report.
The key elements of the proposed Design Compliance Monitoring are:
• Project Planning and Design Checklists;
• Compliance monitoring and reporting protocol;
8.4.3.1 Development and Implementation Schedule

The SWMP is being revised by the Department to comply with Resolution No. 2001-070 approved by the SWRCB at its May 17, 2001, board meeting. Several elements of the SWMP are currently undergoing significant changes that address project planning and design activities. Consequently, Design Compliance Monitoring for design activities will be developed and implemented in three phases as follows:

**Activities Prior to January 1, 2002**

Until January 1, 2002, each District will continue to use the storm water procedures checklists and review processes that had previously been developed to determine compliance with the storm water requirements during the project planning and design phases. The checklists include the following elements:

- Inclusion of Pollution Prevention BMPs in projects;
- Consideration of the need for approved treatment BMPs in projects;
- Inclusion of Standard Special Provisions (SSPs) in projects;
- Determine need to include temporary construction BMPs;
- Prepare storm water quality informational handout for bid documents; and
- Prepare and submit NOC.

**Subsequent to April 1, 2002**

By April 1, 2002, the Department’s PD SWAT will develop and the Regions/Districts will begin implementing a revised Design Compliance Monitoring process. The goals of the proposed compliance process are:

- Be consistent to ensure design activities consistently implement elements of with the approved Storm Water Management Plan (SWMP).
- To provide consistent statewide measurement standards for SWMP implementation and evaluation.
- To monitor design projects for compliance with basic processes and procedures developed by the PD SWAT.
- To report compliance data to the Department’s management.
- To gather data to identify implementation trends and suggest identification of needs for SWMP revisions, design activities improvements, and training. Until January 1, 2002, the Department’s Regions/Districts will continue to use their own storm water procedures.
checklists and/or a review processes to determine compliance with the storm water requirements during the project planning and design phases.

Annual Review and Update

Annually, the Department will review and evaluate its SWMP and propose changes as needed to improve its effectiveness. Changes to the Design Compliance Monitoring section will be incorporated into future updated versions of the SWMP and provided to the SWRCB and RWQCBs with justification through the Annual Reporting requirements of the Permit (see Section 9.2 of the SWMP).

8.4.3.2 Project Planning and Design Checklist

A Project Planning and Design Checklist (Checklist) will be the basis for determining compliance with the design pollution prevention and treatment BMP requirements of the permit and SWMP. The Checklist will be used by the Districts and will include the process and procedures that will be followed in order to ensure BMPs are being considered and appropriately incorporated into Department projects. Any needed changes to Design Compliance Monitoring will be incorporated in future updated versions of the Checklist. The Checklist may be modified based on feedback from the Districts PD SWAT representative or NPDES Storm Water Coordinator. Districts may also modify the Checklist to meet specific local requirements.

8.4.3.3 Design Project Review

Project Checklists will be reviewed by District reviewers for compliance with developed storm water procedures during the project constructability review. The reviewers will be identified within each District. The project may require modification based on the results of the project review.

8.4.3.4 Compliance Monitoring and Reporting

The District reviewers will provide feedback to the Project Engineer (PE) and Design Senior as necessary to correct any deficiencies at the end of each review. The PE will then be responsible for addressing any of the identified Checklist deficiencies and for scheduling a re-review if needed.

The Districts reviewers will summarize the review information quarterly and forward this to HQ. HQ will then analyze the compiled information from the individual Districts to recommend program changes that will assist the Districts to achieve project compliance in the project planning and design phases. The reviewers may also make recommendations for future SWMP changes.

8.4.3.5 Feedback and Program Improvement

Design project compliance review results and lessons learned will be documented and reported to the Department’s design staff statewide using four primary methods:
• **Quarterly Electronic Mail:** The District reviewers will provide a quarterly summary of compliance monitoring activities to the HQ by e-mail in a format specified by the PD SWAT. The summary will include:
  - Number of projects reviewed
  - Project findings
  - Suggestions for program revisions

• **Bulletins:** The Department may periodically issue internal bulletins or write articles to be published in newsletters focusing on issues related to planning and design procedures or design changes.

• **Meetings with District Personnel:** The District reviewers may participate in meetings with HQ or District personnel (e.g., Project Engineer Meetings, Design Managers’ Meetings, PD SWAT meetings) to discuss their findings and recommendations for program changes.

### 8.4.3.6 Annual Reports

The information to be included in the Annual Report will be first reviewed by the PD SWAT as part of the process to annually update the SWMP. A summary of Design Compliance Monitoring activities will be provided in the Annual Report including:

1. The design checklist used during the previous year;
2. A new checklist for the upcoming year, if needed;
3. A summary of the review findings; and
4. A summary of lessons learned, trends, challenges encountered, and proposed program changes.

### 8.5 OVERALL STORM WATER PROGRAM EVALUATION

The overall Storm Water Program is evaluated by the Water Quality Program with the following objectives:

- Evaluate the adequacy of communication between the various storm water coordinators in each district and between the districts and HQ functional programs; and
- Evaluate District coordination with the RWQCBs.

### 8.5.1 Communication Evaluation

The various methods of communication in place between the district storm water coordinators will be reviewed and analyzed to determine their effectiveness. This will include a review of each district’s organization, specifically any general coordination meetings that take place between the various coordinators. Communication between the HQ Programs and the District Storm Water Coordinators is also reviewed. The overall effectiveness of the communication between the various parties will be determined by meeting with the individual coordinators to
discuss storm water issues and obtain feedback on what parts of the program work well and where improvements could be made.

Evaluation and assessment tools to be developed as described in Section 8.2 will significantly add to the communication evaluation. Included in the evaluation will be a review of each district’s mechanisms that are in place to facilitate communication between adjacent districts and the RWQCBs. Assurance that proper coordination of the District Work Plans has taken place with all parties will be part of this process.

8.5.2 Feedback and Program Improvement

A report will be prepared each year that summarizes the findings of these evaluations. An overall assessment of the District communication will be included. Specific challenges that prevent effective communication will be documented, and recommended improvements to the communication structure based on what is found to be working in Districts with good communication procedures will be discussed. Findings for individual districts will be discussed with that district Storm Water Coordinators. The report, its findings, and recommendations will be included in the Annual Report.
SECTION 9 REPORTING

9.1 OVERVIEW

This section describes how the Department will report to the SWRCB. This section is organized as follows:

- Section 9.2 describes the Annual Report;
- Section 9.3 describes the De-icer Report;
- Section 9.4 describes how the Department will report instances of noncompliance;
- Section 9.5 discusses general discharge prohibitions; and
- Section 9.6 discusses requirements of the Lahontan Regional Water Quality Control Board.

9.2 ANNUAL REPORT

The reports from the Monitoring and Research Program (Section 7) and the Program Evaluation efforts (Section 8) will be incorporated into the Annual Report, along with other Permit reporting requirements. In addition to submitting material specifically required by the Statewide SWMP and the Permit, the Annual Report will serve as a self-audit by providing detail, brief summaries and other information on the development and implementation of activities conducted by the Department statewide and by providing an evaluation and assessment on the appropriateness and effectiveness of the BMPs implemented through the SWMP. These other reporting requirements and the corresponding Permit and Statewide SWMP sections are discussed in the following subsections.

9.2.1 Annual Report Format

The Department worked cooperatively with the SWRCB and RWQCBs to develop a strategy for compiling and reporting annual activities. The strategy and format will be implemented beginning with the April 2002 Annual Report.

9.2.2 Non-Storm Water Report

Provision B.9 of the Permit requires the submittal of a Non-Storm Water Report as part of the Annual Report. Non-storm water discharges are addressed in Sections 4.7 and 5.4 of this Statewide SWMP. This report will include additional non-storm water discharges identified during the reporting period and provide a characterization of these discharges. Revisions to BMP programs for currently permitted non-storm water discharges to be implemented in the coming year and any proposed additional non-storm water discharges and associated BMPs to be permitted will be described and justified in this element of the Annual Report.
9.2.3 Revised Statewide SWMP

Provision E.1 of the Permit requires the SWMP to be reviewed annually and revised as necessary to maintain an effective program. The revised Statewide SWMP is to be submitted as part of the Annual Report. The Annual Report will contain documentation that describe and justify the proposed SWMP changes. All levels in the Department’s organization will be encouraged to suggest potential revisions to the Water Quality Program through the District Storm Water Coordinators. In addition, in the process of compiling and evaluating information for the Annual Report, the Water Quality Program may identify trends, common problems or solutions that may dictate further revisions to the Statewide SWMP. Revisions to the SWMP may also be initiated at the request of the SWRCB or RWQCB staff. Both the draft Annual Report and the draft Statewide SWMP update are made available for public review prior to being finalized and transmitted to the SWRCB. Significant revisions to the SWMP will require SWRCB approval. Annual workshops in both Northern and Southern California will be held to help facilitate public input on these documents. In addition, as required by Section F.1 of the Permit, this review will include a re-evaluation and revision of the BMP program.

9.2.4 District Work Plans

Provision E.2 of the Permit requires the submittal of District Work Plans as part of the Annual Report. The Department worked with the SWRCB and RWQCBs to develop a standard format to be used for work plan development and submittal. District Work Plans (Section 2.5) provide details on activities to be conducted by a District during the upcoming reporting period to comply with the Permit and SWMP. The Districts are responsible for implementation of the stormwater program consistent with statewide model practices in collaboration with Headquarters Division of Environmental Analysis and other applicable Headquarters Functions consistent with the process as described in Section 2.1.1.

Caltrans coordinates its storm water management activities with other MS4 storm water management programs under the oversight of the District Directors. Municipal coordination goals and activities for the upcoming fiscal year are included in each of the District Work Plans (DWP) and certified by the District Director.

The Department will develop and submit District Work Plans to the SWRCB each year by April 1, as part of the Annual Report. The District Work Plans will also be forwarded to the appropriate RWQCB Executive Officer for approval. The District Work Plans will describe the activities that will be conducted by the Districts during the reporting period to implement the SWMP. These work plans are organized as follows:

- Section 1 – Introduction;
- Section 2 – Personnel and Responsibilities;
- Section 3 – District Facilities and Water Bodies;
- Section 4 – Drinking Water Reservoirs and Recharge Facilities;
- Section 5 – Implementation (including Municipal Coordination); and


- Section 6 – Total Maximum Daily Loads

The DWP’s describe specific tasks planned by the District including municipal coordination. Coordination with other stakeholders, including the local Municipal co-permittees are described in the DWPs for the upcoming fiscal year. Municipal coordination include routine or case-by-case Caltrans/municipal stormwater management coordination and may include opportunities to collaborate on the following:

- Notify the municipalities, via written correspondence, of any illicit discharges or connections discovered within Caltrans’ right-of-way and associated with a municipality’s jurisdiction. This includes immediately reporting this information to the RWQCB, if appropriate.
- Notify, via written correspondence, of any illicit discharges or connections discovered within the District right-of-way and associated with a municipality’s jurisdiction; and
- Participation in co-permittees meetings to ensure consistent implementation in the region.
- Collaboration on opportunities to participate in public education, particularly in the areas of stormwater quality issues pertaining to the District's property, facilities, and activities.
- Use of project informational meetings to update local MS4s of new policies, specifications and manuals applicable to Caltrans projects and the Caltrans stormwater program
- Continue to attend TMDL meetings and workshops as needed and coordinate as necessary on TMDLs where Caltrans has been identified as a stakeholder on adopted TMDLs as listed in the Caltrans Statewide NPDES permit.
- Collaborate as needed on agreements related to operation and maintenance practices as it relates to the Caltrans stormwater program.

The Department worked cooperatively with the SWRCB and RWQCBs to develop and implement a standardized work plan format.

The Districts will coordinate and meet with the appropriate Regional Boards to discuss the proposed Regional Workplans at least 30 days prior to the April 1 due date each year.

In addition to the Work Plan that details activities to be conducted in the next reporting period, the Annual Report will provide a detailed summary of the Work Plan activities conducted by the Districts during the preceding reporting period. The report will also identify activities not conducted, provide a justification for why the activities were not conducted and describe the alternative activities conducted or to be conducted.

9.2.5 BMP Selection Report

Provision F.3.f of the Permit requires the submittal of a BMP Selection Report as part of the Annual Report. The BMP Selection Report is presented as Appendix C of this Revised Statewide SWMP. Appendix C will be updated annually, as part of the Statewide SWMP update. BMP changes or additions will be described and justified in the Annual Report and Appendix C of the accompanying Statewide SWMP update.
9.2.6 **New BMP Selection**

Provision F.3.g of the Permit requires the Department to create a mechanism for new treatment and control technologies as part of the BMP program. This will be reported in the New Technologies Report submitted as an attachment to the Annual Report. This report is being done through the Monitoring and Research Activities (Section 7) and will address BMPs to meet MEP and protect water quality.

9.2.7 **Municipal Coordination Program Report**

Caltrans’ Municipal Coordination Plan describes the types of municipal relationships that Caltrans views as mutually beneficial to itself and various local jurisdictions, along with a description of the circumstances that would prompt Department coordination with local jurisdictions, and the protocols under which Department staff would operate in these scenarios. Provision G.1.b of the Permit requires the submittal of a Municipal Coordination Plan as part of the Annual Report. Procedures for coordination with MS4 storm water management programs are described in Section 2.4 of this Statewide SWMP. Additional details of the coordination activities to be conducted during the reporting period are contained in the District Work Plans. The Municipal Coordination Plan will be updated accordingly as part of the annual SWMP and District Work Plan updates. Activities conducted throughout the Districts and Headquarters to implement the municipal coordination plan and activities described in the District work plans during the previous reporting period will be described and summarized in the Annual Report.

9.2.8 **Analysis of the Adequacy of Legal Authority**

Provision G.2.b of the Permit requires the Department to provide an Analysis of the Adequacy of Legal Authority as part of the Annual Report. The analysis of the adequacy of legal authority is described in Section 2.7 of this Statewide SWMP. This Section will be updated as part of the annual Statewide SWMP update process. Specific problems encountered while implementing the storm water program as described in the Statewide SWMP that develop as a result of legal constraints will be documented in the Annual Report.

9.2.9 **Fiscal Analysis**

Provision G.3.b of the Permit requires the Department to provide a Fiscal Analysis as part of the Annual Report in the third and fifth years of the Permit period. The Fiscal Analysis will be submitted as part of the third and fifth year reports. When fiscal constraints are encountered in implementing the program required by the Permit, these circumstances will be identified in the Annual Report.

9.2.10 **Report on the IC/ID Program**

Provision L2.b(4) of the Permit requires the submittal of a report on the IC/ID program as a part of the Annual Report. These reports will summarize the actions taken on all reports of IC/IDs. The District NPDES Storm Water Coordinators are responsible for coordinating, tracking and reporting the response to IC/IDs.
Instances of IC/IDs are typically discovered by Construction (Section 4.6) or Maintenance (Section 5.3.2.3). The responsible field personnel for Maintenance and Construction (Construction REs and Maintenance Area Supervisors) are trained to recognize IC/IDs. IC/IDs are referred to the District NPDES Storm Water Coordinators who will coordinate with other Department functional units as necessary to correct or eliminate the IC/ID.

The public may also alert the Department to instances of IC/IDs. Each District has a Public Information Officer who responds to public or third-party contacts (District phone numbers are widely available in telephone books, on Web sites, etc.). Any reported IC/ID by the public is referred by the Public Information Officer to the District Storm Water Coordinator. The District’s response to each IC/ID will be documented in the Annual Report.

**9.2.11 Public Education Program Progress Report**

Provision J.3.c. of the Permit requires the submittal of a Public Education Program Progress Report as a part of the Annual Report. The Public Education Program is described in Section 6.4 of this Statewide SWMP. The public educational programs conducted in cooperation with municipalities that are planned to be conducted during the reporting period will be described in the District Work Plans. The Annual Report will describe the progress made on the development and implementation of the Public Education Program and provide a summary of activities conducted by the Districts through its annual work plans regarding public outreach and education during the reporting period will be included in the Annual Report.

**9.3 DE-ICER REPORT**

Provision L.10.b of the Permit requires the submittal of a De-Icer Report for the Tahoe Basin. These reports will describe the results of the abrasives and de-icing materials analysis and the annual results of the De-Icer Monitoring Program in the Lake Tahoe Hydrologic Unit as these results pertain to BMP effectiveness and surface water impacts. The Permit required the De-icer Report to be submitted with the Annual Report. The Department has volunteered to submit the De-Icer Report six months earlier than the Permit requires in an effort to provide these data in a timelier manner. The De-Icer Report is therefore submitted by October 1 every year and covers the preceding winter period. The reports will also provide a summary of the Department’s Capital Improvement Program (CIP) activities within the Tahoe Basin, including progress on implementing the CIP and project effectiveness.

**9.4 NONCOMPLIANCE REPORTING**

Provision K.3.a of the Permit requires the Department to develop and implement a Report of Noncompliance. The following reporting protocol was developed in a cooperative effort between the Department and the SWRCB and RWQCBs staff. Unless otherwise indicated in the District Work Plans, the District NPDES Storm Water Coordinator will make noncompliance reports to the RWQCB Executive Officer or designee.
9.4.1 Noncompliance Reporting Plan for Municipal and Construction Activities

9.4.1.1 Immediate Reporting

Conditions:

- Discharges of permitted storm and non-storm water that violate or threaten to violate prohibitions, limitations and conditions of the Permit and which may endanger health or the environment;
- Discharges of prohibited non-storm water discharges that may endanger health or the environment;
- Discharges of spills of petroleum products, hazardous materials or wastes, and toxic chemicals;
- Failure or serious damage to BMP control facilities that result in discharges that may endanger health or the environment.

Department Action:

- Immediately notify RWQCB no later than 24 hours after discovery of the incident;
- Follow-up in writing within 24 hours;
- Perform follow-up monitoring of major spills and/or perform conformation sampling to ensure that threats to waters have been eliminated as determined by the RWQCB; and
- Retain records for three years.

9.4.1.2 Reporting in 5 Working Days

Conditions:

- Discharges of non-storm water that are not authorized nor exempt by the Permit or any other NPDES permit and do not result in serious violations of the State Water Code;
- Discharges that result in violations of narrative and numeric prohibitions and limitations of the permit;
- Discharges that violate requirements of the CWA, 404 permits and 401 certifications;

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2 Discharges from construction sites regulated by the State General Permit for Storm Water Discharges Associated with Construction Activities.
3 Examples of violations or excessive erosion to stream banks or beds, discharges that result in excessive sedimentation to the stream or water body, discharges of hazardous materials or waste or toxic materials, discharges with strong and/or lingering odors, discharges that cause high turbidity, discharges that show evidence of pollutant plume, and discharges that result in mortality of fish or aquatic species.
3 Failure or damage to a BMP that results in a system bypass or short circuiting that results in a discharge meeting the characteristics described in Footnote 2.
4 Required by Provision K.3 of Caltrans Statewide NPDES Storm Water Permit, Order no. 99-06-DWQ.
9.4.2 Reporting Plan for Construction Activities Only

9.4.2.1 48-Hour Notification

Condition:
- Runoff from site if determined to be causing or contributing to exceedances of water quality standards.

Department Action:
- Notify RWQCB as soon as possible but within 48 hours;
- Submit written follow-up report within 14 calendar days; and
- Keep records for 3 years.

9.4.2.2 30-Day Notification

Condition:
- Site is not able to certify in accordance with the annual certification requirements in the General Permit; or
- All other incidents of noncompliance not reported under the 48-hour requirement or reported under Section 9.4.1.1 or 9.4.1.2.

Department Action:
- Submit reports to RWQCB within 30 days of inability to certify or within 30 days of other instances of noncompliance; and
- Keep all records for 3 years.

5 See definition of serious violation in Footnote 2.
9.5 GENERAL DISCHARGE PROHIBITIONS

Provisions A.1 through A.17 of the Permit establish general discharge prohibitions that will be complied with by the Department. Any discharge in violation of these prohibitions will be reported in accordance with our Noncompliance Reporting Plan described in Section 9.4. As required by the Permit, the Department’s discharges must not be toxic. As part of the Monitoring and Research Program outlined in Section 7, discharges will be regularly monitored for toxicity. If toxicity is discovered, it will be reported as part of the annual Water Quality Assessment Report per Section 7.4 and in accordance with the Noncompliance Reporting Plan as described in Section 9.4 when necessary.

9.6 LAHONTAN RWQCB REQUIREMENTS

In the Lake Tahoe Hydrologic Unit, the Department’s discharges must not exceed the applicable numerical effluent limitations. In accordance with the Permit, the Department is under a compliance schedule to meet these limitations by the year 2008. As part of the Monitoring and Research Program outlined in Section 7, discharges in the Tahoe basin will be regularly monitored relative to these numeric limits. If pollutant levels are found to exceed these limits, the exceedances will be reported as part of the annual Water Quality Assessment Report per Section 7.4 and in accordance with the Noncompliance Reporting Plan as described in Section 9.3 when necessary.
SECTION 10 LOCATION-SPECIFIC REQUIREMENTS

10.1 OVERVIEW

This section highlights regional exceptions/additions to the procedures and practices stated elsewhere in this Statewide SWMP. Such exceptions/additions reflect special conditions within the state (e.g., unique requirements due to geography, climate, terrain, local hydrology, sensitive receiving waters, RWQCB/basin plan requirements, District organization and/or specific types of facilities). In addition, the Department will develop and submit District Work Plans as described in Section 2.5. This section is organized as follows:

- Section 10.2 describes location-specific requirements for District 3 (Marysville).
- Section 10.3 describes location-specific requirements for District 7 (Los Angeles).
- Section 10.4 describes location-specific requirements for District 9 (Bishop).
- Section 10.5 describes location-specific requirements for District 10 (Stockton).
- Section 10.6 describes location-specific requirements for District 11 (San Diego).

10.2 CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 3 (MARYSVILLE)

District 3 will implement the following location-specific storm water management practices:

- The following non-storm water discharges are prohibited within the Lahontan Region: 1) water line-flushing; 2) groundwater or surface water pumping associated with construction activities that would violate numerical limitations within the Lake Tahoe Hydrologic Unit or receiving water objectives throughout the Lahontan Region; 3) potable water resources; 4) uncontaminated pumped groundwater that would violate numerical effluent limitations within the Lake Tahoe Hydrologic Unit or receiving water objectives throughout the Lahontan Region; and 5) air-conditioning condensate (not applicable to vehicles).

- For new construction or major reconstruction of existing facilities, a storm water runoff collection, treatment and/or infiltration disposal facility will be installed and maintained for discharge of storm water runoff from all impervious surfaces generated by the 20-year, one-hour design storm within the Lake Tahoe Hydrologic Unit (one inch of rain) and within the Truckee River Hydrologic Unit (3/4 inch of rain). If site conditions do not allow for adequate on-site disposal, all site runoff must be treated, where feasible, to meet applicable effluent limits and/or receiving water limitations specified in the basin plan. Runoff in excess of the design storm and generated by the facility or within the project site will only be discharged to a storm drain or stabilized drainage adequate to convey the 100-year 24-hour flow. If it is not feasible to either accommodate on-site disposal or treat runoff to meet applicable water quality standards, then traction sand trap devices shall be provided where feasible.
Existing storm drain facilities within the Lake Tahoe Hydrologic Unit will be retrofitted to comply with the above new construction or major reconstruction storm water runoff collection, treatment and/or infiltration disposal facility requirement by the year 2008. The RWQCB Executive Officer may approve alternative measures.

The Department will continue to participate in the CIP, as described in Volume IV of the CWA Section 208 Water Quality Management Plan, in order to comply with the year 2008 compliance date.

Within the Lake Tahoe Hydrologic Unit, new construction and major reconstruction will comply with Erosion Control Guidelines for the Lake Tahoe Hydrologic Unit, the Truckee River Hydrologic Unit and the North Lahontan Region, where applicable.

Within the Lake Tahoe and Truckee River Hydrologic Units, the Department will inspect active project sites and maintenance facilities prior to, during and after storms to ensure that BMPs are functioning as specified to prevent the discharge of pollutants to surface waters or storm water conveyance systems that discharge to surface waters. Caltrans’ Maintenance Compliance Program will include performing all inspection and enforcement activities to ensure that facilities are in compliance with the statewide National Pollutant Discharge Elimination System permit (Permit), Storm Water Management Plan (SWMP), Caltrans Maintenance Storm Water Management Program guidance documents, and the Maintenance Storm Water Management Program.

Within the Lake Tahoe and Truckee River Hydrologic Units, unless a variance has been granted by the Executive Director of the Lahontan RWQCB, no vegetation shall be removed nor ground surface conditions disturbed between October 15 of any year and May 1 of the following year, except: 1) in emergency situations where public health or welfare is threatened; 2) for regrading existing shoulder widths when there is neither snow on the ground nor an immediate threat of precipitation; 3) when there is no soil disturbance, or appropriate storm water runoff and erosion control measures are in place; and 4) when cleaning out ditches or culverts or filling in drop-off sections when appropriate storm water runoff and erosion control measures are in place.

Within the Lake Tahoe and Truckee River Hydrologic Units, the Department will participate in early project design consultation. The Department will submit an SWPPP/WPCP for RWQCB staff review and approval no later than 30 days prior to beginning construction activities, and the RWQCB’s proposed modifications will be included within the plans prior to beginning construction activities.

Within the Lake Tahoe Hydrologic Unit and where abrasives and/or de-icing agents are used on highways, the Department will record the following: 1) location of the source of abrasive materials; 2) types and chemistry of salt de-icing agents, analyzed for total phosphorus, total nitrogen, iron and percent NaCl; 3) types and chemistry of alternative de-icing agents, analyzed for total nitrogen and total phosphorus; 4) type and chemistry of abrasives, with the gradation and percent organic matter and analyzed for volatile...
solids, iron, total nitrogen, total phosphorus and total reactive phosphorus; 5) volume of abrasives and de-icing agents used on individual highway segments.

- To reduce salt and sand usage in the Lake Tahoe area, District 3 is evaluating use of brine solution (as opposed to spreading salt) for ice control. District 3 has also modified its snow removal practices in the Lake Tahoe Basin to further minimize the use and resultant discharge of abrasives used for traction control.

In areas where significant amounts of abrasives are required to be regularly used, the Department will:

- Increase sweeping frequency to remove accumulated abrasives.
- Request funding to install sand traps at all feasible discharge locations per Section 4.4.

### 10.2.1 California Department of Transportation District 3 Reporting/Notification Issues

In the Lake Tahoe Hydrologic Unit, District 3 will implement the following:

- The Department will submit a monitoring program proposal (De-icer Monitoring Proposal) that evaluates the effectiveness of the BMPs used to recover abrasives and de-icing materials and that evaluates the impacts of abrasives and de-icing materials on surface waters.
- The Department will submit a report (De-Icer Report) as part of each year’s Annual Report to describe the results of the analysis and the annual results of the de-icing monitoring as these results pertain to BMP effectiveness and surface water impacts. The De-Icer Report will also include a summary of CIP activities, including progress on implementing the CIP and project effectiveness.
- Instances of noncompliance that may significantly endanger health or the environment will be reported to the Lahontan RWQCB per the requirements of Section 9.3.

### 10.2.2 California Department of Transportation District 3 Master Plan

District 3 will implement these requirements in a manner determined by a master plan process. The Department partnered with municipalities, counties, drainage districts and other local and/or regional agencies in the Lake Tahoe Hydrologic Basin to develop a master plan. This plan identifies the criteria for site-specific BMP selection, the availability of rights-of-way for construction of treatment controls, the scheduling of construction, traffic control, coordination with other projects and a priority listing for retrofit projects.

### 10.3 CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 7 (LOS ANGELES)

In 1995, the Department responded to a citizen suit and began a process of defining and implementing location-specific storm water management activities in the major metropolitan area of District 7. As a result of continuing negotiations with the court and plaintiffs, certain
storm water management requirements and activities that are employed in District 7 may differ
from those used in the other Districts and may change during the term of the Permit.

10.4 CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 9 (BISHOP)

District 9 will implement the following location-specific storm water management practices:

- For new construction or major reconstruction of existing facilities, a storm water/urban
  runoff collection, treatment and/or infiltration disposal facility will be installed and
  maintained for discharge of storm water runoff from all impervious surfaces generated by
  the 20-year, one-hour design storm within the Mammoth Creek Hydrologic Unit above
  7,000-foot elevation (one inch of rain). If site conditions do not allow for adequate on-site
  disposal, all site runoff must be treated, where feasible, to meet applicable effluent limits
  and/or receiving water limitations specified in the basin plan. Runoff in excess of the
  design storm and generated by the facility or within the project site will only be
  discharged to a storm drain or stabilized drainage adequate to convey the 100-year 24-
  hour flow. If it is not feasible either to accommodate on-site disposal or treat runoff to
  meet applicable water quality standards, then traction sand trap devices shall be provided
  where feasible.

- For the portions of Mono and Inyo Counties within the Lahontan Region and above 5,000
  feet in elevation (unless a variance has been granted by the Executive Director of the
  Lahontan RWQCB), no vegetation shall be removed nor ground surface conditions
  disturbed between October 15 of any year and May 15 of the following year, except: 1) in
  emergency situations where public health or welfare is threatened; 2) for regrading
  existing shoulder widths when there is neither snow on the ground nor an immediate
  threat of precipitation; 3) when there is no soil disturbance, or appropriate storm water
  runoff and erosion control measures are in place; and 4) when cleaning out ditches or
  culverts or filling in drop-off sections when appropriate storm water runoff and erosion
  control measures are in place.

- Within the Mammoth Creek Hydrologic Unit, the Department will participate in early
  project design consultation. The Department will submit an SWPPP/WPCP for RWQCB
  staff review and approval no later than 30 days prior to beginning construction activities,
  and RWQCB’s proposed modifications will be included within the plans prior to
  beginning construction activities.

10.5 CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 10 (STOCKTON)

District 10 will implement the following location-specific storm water management practices:

- For new construction or major reconstruction of existing facilities, a storm water/urban
  runoff collection, treatment and/or infiltration disposal facility will be installed and
  maintained for discharge of storm water runoff from all impervious surfaces generated by
  the 20-year, one-hour design storm within the East Fork Carson River and West Fork
  Carson River Hydrologic Units (one inch of rain). If site conditions do not allow for
  adequate on-site disposal, all site runoff must be treated, where feasible, to meet
applicable effluent limits and/or receiving water limitations specified in the basin plan. Runoff in excess of the design storm and generated by the facility or within the project site will only be discharged to a storm drain or stabilized drainage adequate to convey the 100-year 24-hour flow. If it is not feasible to either accommodate on-site disposal or treat runoff to meet applicable water quality standards, then traction sand trap devices shall be provided where feasible.

- Within the East Fork Carson River and West Fork Carson River Hydrologic Units (unless a variance has been granted by the Executive Director of the Lahontan RWQCB), no vegetation shall be removed nor ground surface conditions disturbed between October 15 of any year and May 15 of the following year, except: 1) in emergency situations where public health or welfare is threatened; 2) for regrading existing shoulder widths when there is neither snow on the ground nor an immediate threat of precipitation; 3) when there is no soil disturbance, or appropriate storm water runoff and erosion control measures are in place; and 4) when cleaning out ditches or culverts or filling in drop-off sections when appropriate storm water runoff and erosion control measures are in place.

10.6 CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 11 (SAN DIEGO)

In late 1996, the Department responded to a joint lawsuit by EPA and citizen groups and began a process of defining and implementing location-specific storm water management activities in those portions of District 11 that lie within San Diego County and are under the jurisdiction of the San Diego RWQCB.

District 11 will implement the following location-specific storm water management practices:

- The District is responsible for ensuring that a Notice of Construction is submitted to the San Diego RWQCB at least 30 days prior to the start of construction for projects that require a WPCP, regardless of the size of the project. The District will also ensure that a Notice of Completion is submitted to the San Diego RWQCB upon completion of construction and stabilization of the site.

- The IC/ID Program includes procedures for the detection and reporting of IC/IDs identified via 1) the Department’s field personnel; 2) dry weather field screening results; 3) follow-up on public complaints; or 4) other means. Procedures for conducting follow-up investigations of reported IC/IDs to identify the source have been developed. All identified IC/IDs will be eliminated as expeditiously as possible.

- The Drain Inlet Inspection and Cleaning Program will be accomplished in accordance with the requirements specified in the Consent Decree.

- The Department will annually update on or before October 1 an FPPP for all maintenance facilities within San Diego County.

- The Department will participate in a regionwide Public Education Program called “Think Blue,” which will be conducted in conjunction with other municipal entities. This program will entail research, public education strategy and mass media advertising. “Think Blue” is designed to generate awareness and action among San Diego residents to
prevent the sources of storm drain pollution that have a severe impact on San Diego’s environment, life style and economy. Community and environmental organizations will provide ongoing review and input for the “Think Blue” program.

- The District will implement the Maintenance Compliance Program to assess compliance with the implementation of BMPs within the Department’s functional units: Project Delivery, Construction and Maintenance. Specific mechanisms that serve as a basis to ensure/monitor compliance are outlined below.

**Project Delivery**

Projects are reviewed by the NPDES Unit prior to project completion and advertisement to verify appropriateness of selected measures.

Periodic storm water updates are provided to Project Delivery staff via the NPDES Design Coordinator.

Training for new hires, training schedules and course evaluations are reviewed periodically as part of the Storm Water Coordinator meetings conducted bi-weekly to ensure that training materials and course content are adequate and meet goals.

**Construction**

- Compliance reviews are conducted for the Department’s construction projects; these reviews provide compliance assistance to field personnel. Rating criteria are specified in the ACCRP.

- The Department periodically reviews feedback from the compliance reviews to identify and compile information about commonly encountered problems (including conflicts between implementation of storm water controls and current standard practices and policies), solutions, and suggestions from field personnel. This information forms part of the continuous improvement process for management policies and BMPs.

- Annual review of Noncompliance Reports is conducted.

- Annual review is conducted of stop-work orders and other enforcement mechanisms utilized by field personnel related to storm water compliance.

- Training for new hires, training schedules and course evaluations are reviewed periodically as part of the Storm Water Coordinator meetings conducted bi-weekly to ensure that training materials and course content are adequate and meet goals.

**Maintenance**

- Annual review is conducted of the FPPP for maintenance facilities within San Diego County.

- Maintenance Area Supervisors conduct monthly inspections of their maintenance facilities to ensure proper implementation of BMPs and timely and adequate corrective actions if deficiencies are noted.
Training for new hires, training schedules and course evaluations are reviewed periodically as part of the Storm Water Coordinator meetings conducted bi-weekly to ensure that training materials and course content are adequate and meet goals.

General

Bi-weekly meetings between the various NPDES Coordinators are held to provide solutions to issues that require immediate resolution. In addition, these meetings provide a venue for sharing ideas between functional units.
APPENDIX A  ENFORCEMENT RESPONSE PLAN
Stormwater Management Program
Enforcement Response Plan

California Department of Transportation

July 2012

DRAFT
For individuals with sensory disabilities, this document is available in alternate formats upon request. Please call or write to Stormwater Liaison, Caltrans Division of Environmental Analysis, P.O. Box 942874, MS 27, Sacramento, CA 94274 0001, (916) 653 8896 Voice, or dial 711 to use a relay service.
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Abbreviations and Acronyms

AS  Approved Signatory
BMP  Best Management Practice
CGP  State Construction General Permit
CHP  California Highway Patrol
CSWAT  Construction Storm Water Advisory Team
CWA  Clean Water Act
DCSWC  District Construction Stormwater Coordinator
DEA  Division of Environmental Analysis
DMSWC  District Maintenance Stormwater Coordinator
EP  Encroachment Permit
EPA  United States Environmental Protection Agency
ERP  Enforcement Response Plan
FPPP  Facility Pollution Prevention Plan
HQ  Headquarters
IA  Independent (Quality) Assurance
IC/ID  Illicit Connection/Illegal Discharge
LRP  Legally Responsible Person
MS4  Municipal Separate Storm Sewer System
NOI  Notice of Intent
NOT  Notice of Termination
NPDES  National Pollutant Discharge Elimination System (Statewide)
QA  Quality Assurance
QC  Quality Control
QSD  Qualified SWPPP Developer
QSP  Qualified SWPPP Practitioner
RE  Resident Engineer
RL  Risk Level
ROW  Right-of-Way
RWQCB  Regional Water Quality Control Board
SMARTS  Stormwater Multiple Applications and Report Tracking System
SWAT  Storm Water Advisory Team
SWMP  Stormwater Management Plan
SWPPP  Stormwater Pollution Prevention Plan
SWRCB  State Water Resources Control Board
TE     Transportation Engineer
WPC    Water Pollution Control
WPCP   Water Pollution Control Plan
1 Introduction and Background

1.1 Purpose

This Enforcement Response Plan (ERP) describes the California Department of Transportation’s (Caltrans’) approach to ensuring implementation of the Caltrans National Pollutant Discharge Elimination System (NPDES) Stormwater Permit (Permit) and the State Construction General Permit (CGP) through progressive enforcement procedures for construction project, maintenance facilities, and maintenance activities. The ERP establishes a range of escalating enforcement activities to address practices that are contrary to applicable NPDES permits. The ERP describes the selection of possible enforcement responses available to Caltrans’ management. For construction contracts, enforcement responses include stop work orders, changes to construction contracts, and contract termination among other options.

Caltrans is dedicated to ensuring compliance with applicable NPDES permits. Caltrans will identify and resolve compliance issues at the lowest possible level within the organizational hierarchy to ensure that the response is timely and appropriate. However, this ERP describes a methodical escalating approach to compliance issues to ensure that enforcement is comprehensive and effective.

Two types of inspection programs are described in this ERP: Quality Control (QC) and Quality Assurance (QA). The QC process is implemented by the contractor for construction projects, and Caltrans personnel conduct the QC process for maintenance facilities and activities. The QA process is provided by Caltrans personnel, and an independent quality assurance (IA) process is conducted by a third party. The Headquarters Division of Environmental Analysis (DEA) is responsible for implementing the IA process. The IA process is adaptively modified based on lessons learned.

Findings from the standard inspection processes also feed back into the Storm Water Advisory Teams (SWATs) for both construction and maintenance. The SWATs are charged, in part, with recommending procedural changes in response to findings from the inspection programs when a systematic deficiency is identified.

The Plan does not fully define the personnel or contractual enforcement procedures but only summarizes them. It is necessary to review the applicable statutes, regulations and contracts, and associated guidance before fully engaging in these enforcement actions.

1.2 Overview

Caltrans is not a traditional municipal separate storm sewer system (MS4) permittee, as it does not have zoning authority or its own law enforcement department. It also does not have enforcement authority to level monetary penalties or fines. Caltrans must rely on public education and the California Highway Patrol (CHP) to enforce Permit provisions against the public. Caltrans will invest in its public education program to modify public behaviors that are contrary to the NPDES Permit requirements or the Stormwater Management Plan (SWMP). Physical pollution sources, such as illegal connections to the Caltrans storm drain system or
dumping within the state ROW, will be eliminated (by Caltrans maintenance forces) and enforcement taken through the CHP.

Caltrans can control Permit compliance in the ROW at construction sites, maintenance facilities, and during maintenance activities incidental to highway operations. Enforcement actions for these types of activities will be addressed using the steps described in this ERP through the QC process and verified through the QA process. Available guidance is described in the following documents:

- *Construction Compliance Evaluation Plan* (CTSW-PL-08-999.54.1)

Where conflicting language between this ERP and the above plans exists, this ERP supersedes until such time as new compliance plans are approved that incorporate the aspects of this ERP.

The response program has been designed around four levels corresponding to line management positions in the construction and maintenance divisions. This tiered approach to response is designed so that an appropriate management level is responsible to ensure a satisfactory conclusion to all incidents and inspection reports, and provides a progressive method of escalation for problems that are not resolved at a lower level.

### 1.2.1 Construction Sites and the Construction General Permit

The Caltrans NPDES Stormwater Permit requires compliance with the CGP. CGP provisions apply to Caltrans construction projects, including those projects that are constructed under the provisions of an Encroachment Permit. Caltrans provides three levels of inspection on construction sites, through the Resident Engineer, through the District Construction Stormwater Coordinator, and through a third party reporting to the DEA, termed “independent assurance.” The construction enforcement program is described in Section 3.

Caltrans will be responsible for complying with construction stormwater discharge requirements on its projects statewide, whether activities are performed directly by Caltrans staff or by contractors on behalf of Caltrans. Caltrans will retain ultimate responsibility for CGP compliance and will serve as the Legally Responsible Person (LRP), exercising such authority through an Approved Signatory (AS) for all its projects requiring CGP coverage. Per Caltrans contract specifications, its construction contractors are required to comply with the CGP and will serve as the Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer (QSD) and Qualified SWPPP Practitioner (QSP) on behalf of Caltrans. If the project proponent is other than Caltrans, but construction occurs within the state ROW, the project proponent will be required to obtain coverage under the CGP as the LRP (see Section 1.2.3 below).

When performing construction projects that cross Tribal boundaries onto Tribal land, Caltrans will seek coverage under the United States Environmental Protection Agency’s (EPA) Construction General Permit. In the Lake Tahoe Hydrologic Unit, Caltrans will comply with the latest Lake Tahoe Construction General Permit.
1.2.2 Maintenance Facilities and Highway Operations

Caltrans maintenance activities and maintenance facility operations must be conducted in compliance with the Permit. Caltrans performs QC for maintenance NPDES compliance through inspections. A third party, reporting to the DEA provides IA services for maintenance activities through an independent inspection program. The QC, QA and IA programs for maintenance activities are described in Section 4.

1.2.3 Encroachment Permits

The Caltrans Encroachment Permit process provides the authority to grant other parties access to the state highway system and its ROW. Encroachment permits are, in general, revocable licenses granted by Caltrans for construction of fixed or temporary improvements within a state highway ROW or for any activity requiring the temporary use of a state highway ROW. Examples of the use of state highway ROW are utility construction or maintenance, drainage improvements, groundwater monitoring, and special events, such as litter pick-up and parades.

The encroachment permit requires permittees to assume all legal liability and financial responsibility for the encroachment activity for the duration of the encroachment. The permit holder must also agree to comply with environmental laws to include federal, state, or local statute, law, ordinance, code, rule, regulation, permit, order, or decree with specific reference to compliance with NPDES or SWMP requirements, including acting as the LRP for coverage under the CGP. Caltrans oversees NPDES permit compliance through its permit inspectors. Encroachment permit compliance for stormwater activities is discussed further in Section 5.

1.2.4 Illegal Connections and Illicit Discharges

Caltrans has developed an illegal connection/illlicit discharge (IC/ID) notification and response process for the public and Caltrans staff to notify appropriate parties when an IC/ID (or illegal dumping) is discovered. This includes procedures employed by district NPDES staff to investigate and resolve reports of IC/ID. The process relies upon district websites (e.g., Maintenance Service Request) for public reporting of IC/IDs. Caltrans also provides outreach to inform citizens that the website for reporting of IC/IDs is available. This process is managed by the district NPDES Coordinators with assistance from the district Maintenance divisions, and is described in Section 6.
2 Methods of Discovery of Non-Compliance

Non-compliance can arise from discharges of sediment or other pollutants from construction sites, Caltrans facilities, during maintenance operations, or other sources within the ROW. Reports of a stormwater violation or non-compliance may come from the following sources:

- Construction Project Activities – Discharges on a construction site should first be addressed by the contractor, as that is where the responsibility for complying with the CGP rests. The contractor’s own QC program, such as conducting inspections and submitting inspection reports, and providing annual certifications, should prevent or catch discharges missed by the contractor’s crews. A contractor’s implementation or QC failure will be discovered by the Resident Engineer (RE), site inspectors, or other district staff. Inspection findings are provided to the RE for follow-up per the enforcement procedure described in Section 3.

- Encroachment Permit Activities – Non-compliance may be discovered by the Encroachment Permit inspector. Notice may also come from local agencies. Any discharge is referred to the District NPDES Coordinator who notifies the RWQCB, as appropriate.

- Caltrans Staff – Caltrans staff is instructed to notify the District NPDES Coordinator for compliance assurance and follow-up for all construction, maintenance and encroachment permit issues. The District NPDES coordinator will contact the appropriate staff member of the Construction Division, Maintenance Division or Traffic Operations (Encroachment Permit).

- Notification from a Regional Water Quality Control Board – RWQCB staff may contact Caltrans staff relative to a potential non-compliance incident. Appropriate action, based on where the incident occurs, is taken.

- Reports from the Public – Public complaints may come directly to Caltrans or through other local, state or federal government agencies. Communication is referred to the District NPDES Coordinator for compliance assurance and follow-up.
3 Construction Site Quality Assurance and Enforcement Response Program

The purpose of the quality assurance program is to ensure that all capital and maintenance projects constructed within Caltrans’ ROW meet the Caltrans NPDES requirements as well as the CGP requirements (when applicable). The QA program entails three levels of reviews: quality control (contractor), quality assurance (resident engineer and district level), and independent quality assurance [third party (consultant) - HQ level].

In general, the definitions for minor, major, significant, and critical findings are:

**Minor**
- Little to no likelihood of a discharge in violation of an NPDES permit

**Major**
- Potential for a discharge from the construction site in violation of an NPDES permit but the discharge remains within the State’s right-of-way.

**Significant**
- Potential for a discharge from the construction site in violation of an NPDES permit and the discharge is to outside the State’s right-of-way.

**Critical**
- Discharge from the construction site in violation of an NPDES permit and the discharge is to Waters of the State or Waters of the United States.


The Construction enforcement response program ensures that corrective actions are taken to prevent water pollution on construction projects through progressive levels of elevation and assessment.

Contractual enforcement authority for stormwater related actions on a Caltrans construction site is vested with the RE. The RE may seek the assistance of Assistant REs, the Structures Representative, District Construction Stormwater Coordinator (DCSWC), and the District NPDES Coordinator to resolve stormwater issues. The Construction Manager, Deputy Director of Construction and the District Director are responsible for internally managing the Construction ERP as discussed in Section 3.4.2. Authority for enforcement on encroachment projects is vested with the Encroachment Permit Engineer, and with the Caltrans Oversight RE on non-programmed capital construction (oversight) projects.
3.1 Roles and Responsibilities for the Standard Inspection Process

The roles and responsibilities for construction site QC, QA and IA inspections are shown in Figure 3-1. Specifically,

**Quality Control:**

The Caltrans contract specifications designate that the contractor is responsible for quality control including the following:

- The construction contractor is responsible for compliance with CGP and the Caltrans NPDES Permit.
- The contractor is required to designate a Water Pollution Control (WPC) manager.
- The WPC manager is responsible for implementing the project’s Water Pollution Control Plan (WPCP) or SWPPP.
- The WPC manager is responsible for performing quality control inspections in accordance with the construction contract requirements and CGP requirements (as applicable).
- The WPC manager is responsible for implementing corrective action(s).

**Quality Assurance:**

- QA inspections are performed at two levels (QA I and QA II) by two separate Caltrans staff members, the RE and the District Construction Stormwater Coordinator.
- The RE is the Caltrans engineer responsible for administration of the construction contract. The RE is responsible for QA I inspections.
- The District CSWC is responsible for performing QA II inspections. Both the RE’s and the District CSWC’s responsibilities for QA are defined in Chapter 7 of the Caltrans Construction Manual and in the Construction Compliance Evaluation Plan.
- The District CSWC provides recommendations to the RE to implement corrective action(s) and notifies construction management.

**Independent Quality Assurance:**

- IA inspections are provided by an independent third party (consultant) as a part of the construction compliance evaluation plan.
- The IA consultants work under the direction of HQ’s DEA.
- The IA third party (consultant) provides recommendation to the RE to implement corrective action(s) and notifies DEA for tracking purposes (evaluate for programmatic changes, as appropriate).
3.2 Construction Project Quality Assurance (QA II) and Independent Quality Assurance Evaluation (IA)

QA II and IA inspections are performed in accordance with the most recent Construction Compliance Evaluation Plan. The purpose of the CCEP is to describe an effective procedure for evaluating Caltrans District construction project stormwater compliance. On average, two projects per District per month (288 projects annually) are evaluated with the IA inspections. CCEP procedures include:

- Review of the level of compliance of selected construction projects with the CGP, Lahontan CGP, the current NPDES Statewide Stormwater Permit, the statewide Caltrans SWMP, the Clean Water Act, the Porter-Cologne Act, and other applicable permits.
- Conduct inspections prioritized by relative risk to water quality and CWA 303(d) list of impaired water bodies.
- Identification of sources and causes of inadequacies.
- Notification of corrective action and responsibilities
- Process for evaluating trends.
- Evaluation of the adequacy of guidance documents and contract specifications through the Construction Stormwater Advisory Team (CSWAT).
- Effectiveness evaluation of the stormwater program for construction.
- Unannounced inspections
- Inspections performed by qualified personnel
- Inspections include photographic documentation
- Follow-up inspections when required
- As necessary, referral to Enforcement Response Program

3.3 Construction Enforcement Response Program Lines of Authority

The levels of authority between the RE and the Caltrans Director are shown in Figure 3-2. Specifically,

- The RE is the construction contract administrator and is ultimately responsible for implementing all corrective actions on the job site.
- The Construction Engineer is the RE’s first-line supervisor. On larger construction projects, the first-line supervisor may be designated as the RE (i.e. Senior RE). The Construction Engineer or Senior RE is responsible for daily supervision of Caltrans field staff.
- The Deputy District Director for Construction is responsible for planning and directing the activities of the construction division within a district or region, obtaining and providing training for all activities related to contract administration and construction engineering, and ensuring district construction complies with statutory requirements,
including the requirements of the Caltrans NPDES Permit and the CGP. In districts or regions with large construction programs, a Construction Manager is assigned to manage the construction projects within a geographical area.

- District Construction Stormwater Coordinator, Deputy District Director for Construction, and the District Director are available to support the RE.

3.4 Construction Stormwater Quality Response Plan

The Caltrans standard inspection protocol is detailed in Figure 3-3, Construction Stormwater Quality Response Plan, on the left hand side of the page in blue. When corrective actions are determined to be inadequate, then the Enforcement Response Program is implemented at Level 1. Progressive levels of the ERP will be initiated until it is deemed that the corrective action(s) implemented are adequate. Decisions made throughout each level of the ERP and inspections made will be documented.

Enforcement activities may progress through four levels. The responsible person to ensure the enforcement action is completed is unique for each enforcement level. The overall response process is shown in Figure 3-3.
## Construction Stormwater Authority – Roles and Responsibilities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quality Control (QC)</th>
<th>Quality Assurance I (QA I)</th>
<th>Quality Assurance II (QA II)</th>
<th>Independent (Quality) Assurance (IA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whom</td>
<td>Contractor</td>
<td>Resident Engineer (RE)</td>
<td>District Construction Stormwater Coordinator</td>
<td>Third Party</td>
</tr>
<tr>
<td>Authority</td>
<td>Contract</td>
<td>Contract and CGP</td>
<td>Deputy District Director, Construction NPDES Permit and SWMP</td>
<td>NPDES Permit and SWMP</td>
</tr>
<tr>
<td>Protocol/Frequency</td>
<td>As required by Contract and CGP</td>
<td>Contract and CGP</td>
<td>SWPPP Projects RL 3 every 4 wks, RL 2 every 6 weeks, RL 1 every 10 weeks</td>
<td>CCEP Average two projects per District per month (approx 288 projects annually)</td>
</tr>
</tbody>
</table>

**Figure 3-1: Construction Stormwater Standard Inspection Process – Roles and Responsibilities**
STORMWATER QUALITY ASSURANCE RESPONSE PROGRAM
TYPICAL LINES OF AUTHORITY FOR CONSTRUCTION

*varies by district

Figure 3-2: Stormwater Quality Assurance Typical Lines of Authority*
Construction Stormwater Quality Response Process

Standard Inspection Process
(QC, QA I, QA II, IA)

- Project Inspections
  - Overall assessment of compliance with requirements
  - Document findings and observations
  - Are corrective actions needed?*
    - YES: Revisit and document
    - NO: Were the corrective actions adequate?
      - YES: Final Documentation/Report
      - NO: Critical findings are immediately elevated to the ERP process

Additional Triggers: Examples
- Enforcement Actions
- New regulations
- Regulatory referral

Enforcement Response Plan Process

- Level 4: Director
- Level 3: District Director
- Level 2: Deputy District Director, Construction
- Level 1: Construction Manager

Possible Corrective Action(s):
- Focused Training
- Administrative Action
  - BMP Installation
  - Construction Stormwater Documentation Change (e.g., SWPPP)
  - Contract Change Order
  - Resource Allocation
  - Other Corrective Action
- Programmatic Correction
  - Guidance Improvements
  - Construction Documentation/Specifications
  - Programmatic Training
  - Effectiveness
  - Evaluation/Correction
  - Directives
- Contractual Enforcement

Figure 3-3: Construction Stormwater Quality Response Plan Process
3.4.1 Standard Inspection Process

Either inspections are planned or they are in response to other triggers. Planned inspections are performed by the personnel noted in Section 3.1. Unplanned inspections may be triggered by the following:

- Enforcement Actions
- New regulations
- Regulatory referral

During an inspection, an overall assessment of the construction project compliance is made. The inspector documents findings of visual observations including supporting photographic documentation of conditions on an inspection form signed by the inspector. The RE is responsible for implementing corrective actions for any noted findings on the inspection report.

3.4.2 Enforcement Response Program

The ERP process is initiated when site findings or issues are not or cannot be adequately addressed by first line field personnel or a critical finding is noted. When initial corrective actions implemented at the project level are determined inadequate, the ERP is initiated. Progressive levels of the ERP will be initiated until it is deemed that the corrective action(s) implemented are adequate. Decisions made throughout each level of the ERP and inspections made will be documented.

3.4.2.1 Enforcement Level 1

If the contractor or the RE identifies a finding requiring corrective action in the implementation of the approved SWPPP or inadequacies in the SWPPP, and the finding or the inadequacies in the SWPPP are not adequately addressed, Level 1 enforcement process is initiated. Level 1 enforcement actions are the responsibility of the Construction Manager, and are issued by the RE. If nonconformance continues, actions shall be escalated to the next Level until conformance is achieved. Sample letters to the contractor for various levels of nonconformance are included in Appendix 1.

Contractual enforcement against the Contractor for nonconformance with stormwater requirements can be taken through actions as defined below for Level 1, each supported by the Contract Specifications, at the discretion of the Construction Manager. The Construction Engineer is responsible for ensuring the corrective action(s) were implemented and having a subsequent inspection performed and inspection results documented. It is the responsibility of the Construction Manager to elevate an issue to Level 2 if it cannot be adequately resolved at his/her level. Additional actions follow verbal and/or written warnings of non-compliance.

Retention of Payments

The first Level 1 penalty to the Contractor for nonconformance with the Water Pollution Control Section of the specifications is typically the retention of a portion of the monthly progress pay estimate. The retention of funds under this provision is for the contractor’s failure to implement proper water pollution control on the project. This retention is in addition to other retention amounts required by the contract, and will be released for payment
on the next monthly estimate for partial payment following the date when approved water pollution control measures have been implemented and maintained, and when water pollution has been adequately controlled.

**Dismissal of a Worker or Subcontractor**

If a subcontractor or a worker on a project shows a disregard for stormwater pollution prevention requirements or does not have sufficient training to perform the work in a manner consistent with the approved SWPPP/WPCP, the individual or subcontractor can be removed from the project.

**3.4.2.2 Enforcement Level 2**

Level 2 enforcement decisions are the responsibility of the Deputy District Director, Construction. The RE is responsible for implementing the corrective action(s) and having a subsequent inspection performed and inspection results documented.

Inspections that cite a “critical” finding (an observed unauthorized or imminent non-storm water discharge in violation of an NPDES permit or evidence of a recent non-storm water discharge in violation of an NPDES permit) will be immediately elevated to ERP Level 2 and become the responsibility of the Deputy District Director. The Deputy District Director will work with the Construction Manager to quickly resolve the issues, have a subsequent inspection performed, and perform final documentation when corrective actions are deemed sufficient.

The Level 2 action(s) taken by the RE, as directed by the Deputy District Director, may include any of the following:

**Temporary Suspension of Work**

The temporary suspension of work is used if immediate action is required due to the imminent threat of pollution or regulatory action (critical finding), or if the contractor does not respond to written notification of findings in a timely manner.

The Deputy District Director may choose to suspend only the work that is contributing to or causing contract nonconformance. If the contractor continues to fail to take adequate action, the RE can subsequently suspend all work. When all work on the project is suspended, the only work that can be done on the project is water pollution control work.

**Retention of Progress Payment for Fines and Penalties**

When regulatory enforcement actions result in monetary fines or penalties against Caltrans due to the contractor’s violation of Caltrans’ Permits, the SWPPP/WPCP, or federal or state law, Caltrans may retain funds from the monthly progress payment up to the total amount of the fines.

**Administrative Deduction**

Deductions may follow retentions as a permanent reduction in the amount due the contractor for a specific item, such as a fine received by Caltrans for violation of an NPDES permit. The RE will identify, initiate, and control all deductions at the direction of the Deputy District Director. As soon as a final determination is made as to the amount of a fine or penalty to the
state due to the contractor’s violation of a Caltrans Permit, the SWPPP/WPCP, or federal or state law, regulations or requirements, that amount shall be deducted from the payment due to the contractor.

3.4.2.3 Enforcement Level 3

The District Director will be responsible for Level 3 decisions. Level 3 actions will occur when the remedy implemented for Level 2 does not produce a satisfactory outcome. The Level 3 action(s) taken by the RE, as directed by the District Director, may include any of the following:

Termination of Control

If a contractor does not respond to the direction of the RE to comply with water pollution control requirements after the withholding of progress payments and suspension of work, Caltrans may mobilize another contractor or Caltrans maintenance personnel to complete the work.

Termination of Contract

The RE may recommend termination of a contract to the District Director if it is in Caltrans’ best interest not to continue with the prime contractor on the Project.

If the HQ Division Construction Chief concurs, Chief Engineer will issue a letter to the contractor notifying the contractor that Caltrans will terminate the contract.

3.4.2.4 Enforcement Level 4

Level 4 actions will occur when the remedy implemented for Level 3 does not produce a satisfactory outcome. Level 4 enforcement involves the Caltrans Director as the responsible decision maker. The Caltrans Director will rely on the advice of the District Director, the CEE, and the WQMAT to assist in determining the appropriate corrective action(s).

Additionally, a compliance issue will be elevated to this level if legal action is brought by the State, EPA or a third party, or if Caltrans brings legal action against any party resulting from an NPDES violation at a construction site. The Director, in consultation with the Chief Counsel, will protect the environment and Caltrans’ interests and ensure a satisfactory resolution to the action.

3.4.2.5 Possible Corrective Action(s)

At each level of the ERP, the responsible ERP manager will determine appropriate corrective actions. Corrective actions may be project-specific. Corrective actions may also require programmatic corrections on a statewide basis. Programmatic corrections are handled as discussed in the SWMP Section 8. Project-specific are implemented at the district level with the assistance of District Construction Stormwater Coordinator as needed. HQ Construction in coordination with DEA is responsible for developing training for stormwater compliance for construction activities.
3.4.3 Summary of Construction Enforcement Response Program

The Construction ERP operates as an overlay to the construction project inspections. Enforcement response can begin at any one of four levels, or progress through the levels if satisfactory resolution is not reached at a previous level. A Level 1 response is initiated if corrective actions implemented at the project level are not adequate. A Level 2 response is initiated if Level 1 corrective actions are not achievable (e.g., resource needs). ERP Level 3 is initiated when no resolution is achieved at Level 2. A Level 4 response occurs when either an issue has been elevated or when there is significant legal action against the Department as a result of a compliance issue. Table 3-1 summarizes the responsibilities for implementation of the ERP.

<table>
<thead>
<tr>
<th>Table 3-1: Responsibility Matrix for Construction Stormwater Quality Response Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Standard Inspection Process</strong></td>
</tr>
<tr>
<td>QC</td>
</tr>
<tr>
<td>----</td>
</tr>
<tr>
<td>Caltrans Director</td>
</tr>
<tr>
<td>District Director</td>
</tr>
<tr>
<td>Deputy District Director, Construction</td>
</tr>
<tr>
<td>Construction Manager (Supervising TE)</td>
</tr>
<tr>
<td>Construction Engineer (Senior TE)</td>
</tr>
<tr>
<td>Resident Engineer</td>
</tr>
<tr>
<td>Caltrans Contractor (WPC manager)</td>
</tr>
<tr>
<td>District Construction Stormwater Coordinator</td>
</tr>
<tr>
<td>HQ DEA</td>
</tr>
<tr>
<td>Chief Environmental Engineer</td>
</tr>
<tr>
<td>NPDES Coordinator</td>
</tr>
<tr>
<td>Independent Assurance (Third Party)</td>
</tr>
</tbody>
</table>

R – Responsible party to manage process & determine corrective action
A – Party to assist responsible party, as needed
N – Notification provided to this party
I – Responsible party to implement corrective action
I* - Responsible to deploy corrective action as directed by the RE
T – Tracking compliance
TE – Transportation Engineer
4 Maintenance Standard Inspection Process and Enforcement Response Program

The purpose of maintenance standard inspection process is to ensure that all maintenance activities are performed and maintenance facilities are operated in compliance with the Caltrans NPDES requirements. The maintenance inspection process includes three levels of reviews: quality control (maintenance area supervisor), quality assurance (DMSWC), and independent quality assurance (Third Party - HQ level).

The maintenance standard inspection process covers two aspects of the Department’s maintenance operations: 1) maintenance activities, and 2) maintenance facility operations. Maintenance activities are defined as those activities that are performed along the state highway system to maintain and preserve the State highway system. Maintenance facilities are those facilities that support the maintenance crews performing the maintenance activities.

In general, the definitions for minor, major, significant, and critical findings are:

**Minor**
- Little to no likelihood of a discharge in violation of an NPDES permit

**Major**
- Potential for a discharge from the facility or activity site in violation of an NPDES permit but the discharge remains within the State’s right-of-way.

**Significant**
- Potential for a discharge from the facility or activity site in violation of an NPDES permit and the discharge is to outside the State’s right-of-way.

**Critical**
- Discharge from the facility or activity site in violation of an NPDES permit and the discharge is to Waters of the State or Waters of the United States.

The Maintenance ERP ensures that when findings are discovered adequate corrective actions are taken to prevent water pollution during maintenance activities and at maintenance facilities.

4.1 Roles and Responsibilities for the Standard Inspection Process

The roles and responsibilities for maintenance QC and QA inspections are shown in Figure 4-1. Specifically,

**Quality Control:**

QC inspections of field activities are completed by the Maintenance Area Supervisor. Field activities are reviewed on a continuous basis by the Maintenance Area Supervisor in the normal prosecution of his/her duties. Maintenance crews follow the Caltrans Stormwater Quality Handbook Maintenance Staff Guide (CTSW-RT-02-057). Maintenance Area Supervisors are responsible for overseeing and inspecting maintenance activities, as well as
ensuring that crews are adequately trained. Inspections of activities are documented using a standard maintenance activity inspection form.

QC inspections of maintenance facilities are conducted monthly at all active facilities by the facility manager. The facility manager is the staff person responsible for implementation of the Facility Pollution Prevention Plan (FPPP). Maintenance facilities that have a FPPP include:

- Maintenance stations and yards
- Waste storage facilities
- Sand and salt storage facilities
- Equipment shops
- Safety Roadside Rest Areas
- Commercial Vehicle Enforcement Facilities (CVEFs)
- Agricultural inspection stations

FPPPs are not required for temporary stockpile locations (in continuous use for less than one year). All temporary stockpile locations implement the applicable best management practices defined in the Caltrans Stormwater Quality Handbook Maintenance Staff guide. Inspection forms and documentation are completed as specified in the site FPPP. Typically, the facility manager is a maintenance area supervisor, however for larger facilities that support more than one maintenance crew a maintenance area superintendent may be designated as the facility manager. At Equipment Shops, the facility manager is the Equipment Shop Superintendent. Remote facilities and non-Caltrans operated facilities may not have the facility manager located on-site.

**Quality Assurance**

QA inspections are performed by the DMSWC. The DMSWC is the technical expert within each district for Maintenance NPDES compliance. As part of the DMSWC’s duties, he/she is to perform maintenance activity inspections throughout the district as part of their routine work. The DMSWC will also perform QA inspections of maintenance facilities. Facilities with high-risk status will be inspected by the DMSWC at least once annually. High-risk status is assigned to sites discharging to or located within 200 feet of a water body listed as impaired on the current CWA 303(d) list. All other facilities will be inspected at least once every 5 years at an average rate of 20% per year.

**Independent Quality Assurance**

IA inspections are provided by a third party (Consultant) under the direction of HQ DEA. HQ Maintenance and HQ DEA develop a schedule of facilities for the third party to review. District reviews are coordinated through the DMSWC upon the arrival of the third Party in the district to minimize the advance notice given to district field personnel. The third party performs IA inspections on an average of 10 maintenance activities per district per year. Maintenance facilities assigned a high risk status will also have an independent QA inspection on an annual basis. All other maintenance facilities will be given an IA inspection.
at least once every 5 years with an average of 20\% of each district’s maintenance facilities reviewed per year.

CVEFs and agricultural inspection stations are operated by other state agencies within the Caltrans ROW. Caltrans, in cooperation with the other state agencies, establishes roles and responsibilities for stormwater compliance at these facilities. Caltrans retains responsibility for QA and IA at these facilities.

4.2 Maintenance Enforcement Response Program Lines of Authority

Figure 4-2 shows the Maintenance stormwater program organization chart. The Maintenance stormwater program organization is also described in Chapter F of the Caltrans Maintenance Manual, which can be accessed at [http://www.dot.ca.gov/hq/maint/manual/maintman.htm](http://www.dot.ca.gov/hq/maint/manual/maintman.htm).

Deputy District Directors, Maintenance are responsible for the implementation of the policies, procedures, personnel and equipment of the Maintenance stormwater management program within their respective districts. Region Managers direct maintenance activities within regions or programs of a district. Maintenance Area Superintendents direct maintenance activities within maintenance areas, and provide direction to Maintenance Area Supervisors. Maintenance areas contain multiple maintenance facilities. The Maintenance Area Superintendents are responsible for ensuring that maintenance BMPs are implemented in their jurisdictions. Maintenance Area Supervisors are responsible for direct supervision of a maintenance crew. Maintenance Area Supervisors provide on-the-job training for specific crew assignments, including compliance with water quality protection requirements. Supervisors have on-site responsibility for BMP implementation.

The HQ Division of Equipment has statewide responsibility for all equipment shops located in the districts. District Shop Superintendents report to the HQ Division of Equipment, however they maintain an indirect reporting relationship to the district directors. The District Equipment Shop Superintendents rely on the technical stormwater expertise of the DMSWC and the District NPDES Coordinator to assist them with maintaining NPDES compliance at the equipment shop facilities. Either the DMSWC or the District NPDES coordinator will perform QA reviews for equipment shop facilities.

4.3 Maintenance Stormwater Quality Response Plan

The Maintenance Stormwater Quality Response Plan consists of (1) the Maintenance standard inspection process and (2) Maintenance response process as shown in Figure 4-3. The Maintenance standard inspection process is shown in the blue boxes. The Maintenance ERP process is shown in the red box.

The Maintenance standard inspection process is triggered by planned inspections (QC, QA or IA) or other additional triggers that may prompt the need for an inspection to be performed.

The Maintenance ERP is an elevating response program that ensures all findings noted during the standard inspection process are adequately addressed. The ERP process is initiated when site findings or issues are not or cannot be adequately addressed by first line field personnel (typically a Maintenance Area Supervisor or Equipment Shop Superintendent). The Maintenance ERP is also initiated whenever critical findings are discovered during an inspection.
4.3.1 Standard Inspection Process

Inspections are either planned (as discussed in Section 4.1) or they are in response to other triggers. Planned inspections are performed by the personnel noted in Section 4.1. Unplanned inspections may be triggered by the following:

- Extreme weather (pre or post event)
- Enforcement actions taken by any regulatory agency
- New permits or regulations (to determine possible actions to maintain compliance)
- Public/Regulatory referrals (complaints received from the public or other government agencies)
- Potential IC/IDs (as received by the Department)

During an inspection, an overall assessment of a facility’s or an activity’s compliance is made by the inspector. The inspector documents findings and observations on an inspection form. The Maintenance Area Supervisor (for activity inspections) or the facility manager (for facility inspections) is responsible for implementing corrective actions for any findings noted on the inspection report.

4.3.2 Enforcement Response Program

The ERP process is initiated when site findings or issues are not or cannot be adequately addressed by first line field personnel or a critical finding is noted. When initial corrective actions implemented by field staff are deemed not adequate by the Maintenance Area Superintendent, the DMSWC, an IA inspector, or an enforcement agency, the ERP is initiated. Progressive levels of the ERP will be initiated until it is deemed that the corrective action(s) implemented are adequate. Decisions made throughout each level of the ERP and inspections made will be documented.

4.3.2.1 Maintenance Enforcement Level 1

Level 1 Enforcement is managed by the Region Manager. As the ERP 1 manager, the Region Manager is responsible for determining the appropriate corrective actions to be implemented. The Region Manager will oftentimes rely on the advice of the DMSWC, District NPDES Coordinator, or the IA Inspector. Once the Region Manager determines the corrective action(s) to be implemented, the Maintenance Area Supervisor is responsible for implementing the corrective actions. The Maintenance Area Superintendent is responsible for ensuring the corrective action(s) were implemented and having a subsequent inspection performed and inspection results documented. It is the responsibility of the Region Manager to elevate an issue to Level 2 if it cannot be adequately resolved at his/her level.

4.3.2.2 Maintenance Enforcement Level 2

ERP Level 2 will occur when an adequate or timely resolution has not been accomplished at ERP Level 1. ERP Level 2’s responsible manager is the Deputy District Director for Maintenance. The Deputy District Director will rely on the advice of the Region Manager, DMSWC, District NPDES Coordinator, or the IA inspector to assist in determining the appropriate corrective action(s). The Deputy District Director may also seek assistance from
the HQ Maintenance Stormwater or the HQ DEA Stormwater. It is the responsibility of the Deputy District Director to elevate an action to Level 3 if it cannot be adequately resolved at his/her level.

Inspections that cite a “critical” finding (an observed unauthorized or imminent non-storm water discharge in violation of an NPDES permit or evidence of a recent non-storm water discharge in violation of an NPDES permit) will be immediately elevated to ERP Level 2 and become the responsibility of the Deputy District Director. The Deputy District Director will work with the Region Manager to quickly resolve the issues, have a subsequent inspection performed, and perform final documentation when corrective actions are deemed sufficient.

4.3.2.3 Maintenance Enforcement Level 3

ERP Level 3 will occur when an adequate or timely resolution has not been accomplished at ERP Level 2. ERP Level 3’s responsible manager is the District Director. The District Director will rely on the advice of the Deputy District Director for Maintenance, DMSWC, District NPDES Coordinator, or the IA inspector to assist in determining the appropriate corrective action(s). The District Director may also seek assistance from the HQ Maintenance Stormwater or the HQ DEA Stormwater. It is the responsibility of the District Director to elevate an action to Level 4 if it cannot be adequately resolved at his/her level or if the issue has potential statewide implications on the Department.

4.3.2.4 Maintenance Enforcement Level 4

Level 4 will occur when an adequate or timely resolution has not been accomplished at ERP Level 3. Level 4 enforcement involves the Caltrans Director as the responsible person. The Caltrans Director will rely on the advice of the District Director, the CEE, and the WQMAT to assist in determining the appropriate corrective action(s).

Additionally, a compliance issue will be elevated directly to ERP Level 4 if legal action is brought by the State, EPA or a third party, or if Caltrans brings legal action against any party as a result of an NPDES violation at a maintenance facility or activity site. The Director, in consultation with the Chief Counsel, will protect Caltrans’ interests and ensure a satisfactory resolution to the issue.

4.3.2.5 Possible Corrective Action(s)

At each level of the ERP, the responsible ERP manager will determine appropriate corrective actions. Corrective actions may be facility-specific or activity location-specific actions. Corrective actions may also require programmatic corrections on a statewide basis, facility-specific basis, or specific to an activity performed at numerous locations. Programmatic corrections are handled as discussed in the SWMP Section 8. Facility-specific or activity-specific corrective actions are implemented at the district level with the assistance of HQ Maintenance Stormwater as needed. HQ Maintenance in coordination with DEA is responsible for developing training for stormwater compliance for maintenance activities (Note: The Division of Equipment in coordination with DEA is responsible for developing stormwater training for Division of Equipment personnel located at the equipment shops).
4.3.3 Summary of Maintenance Enforcement Response Program

The Maintenance ERP operates as an overlay to the activity inspections and the facility inspections. Enforcement response can begin at any one of four levels, or progress through the levels if satisfactory resolution is not reached at a previous level. Minor and major inspection findings result in a Level 1 response if initial corrective actions implemented at the field staff level are not adequate. Inspections that have “critical” findings result in an immediate elevation to ERP Level 2. ERP Level 3 is initiated when no resolution is achieved at Level 2. A Level 4 response occurs when there is legal action as a result of a compliance issue at a maintenance activity or facility.

Table 4-1: Responsibility Matrix for Maintenance Stormwater Quality Response Process

<table>
<thead>
<tr>
<th>Responsible Level</th>
<th>Standard Inspection Process</th>
<th>Enforcement Response Program</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caltrans Director</td>
<td>QC</td>
<td>QA</td>
<td>IA</td>
<td>N</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>District Director</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>N</td>
</tr>
<tr>
<td>Deputy District Director</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>N</td>
</tr>
<tr>
<td>Region Manager</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>R</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Maintenance Area Superintendent</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Maintenance Area Supervisor</td>
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<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>District Maintenance Stormwater Coordinator (DMSWC)</td>
<td>N/T</td>
<td>R</td>
<td>N</td>
<td>A</td>
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<td>A</td>
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<tr>
<td>HQ DEA</td>
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<td>N/T</td>
<td>N/T</td>
<td>N/T</td>
<td>N/T</td>
<td>N/T</td>
</tr>
<tr>
<td>Chief Environmental Engineer</td>
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<td>N</td>
<td>N</td>
<td>A/N</td>
<td>A/N</td>
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<td>Headquarters Maintenance Division</td>
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</tr>
<tr>
<td>Independent Assurance (Third Party)</td>
<td>R</td>
<td>A</td>
<td>A</td>
<td>A</td>
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<td>A</td>
</tr>
</tbody>
</table>
R – Responsible party to manage process & determine corrective action
A – Party to assist responsible party, as needed
N – Notification provided to this party
I – Responsible party to implement corrective action
T – Tracking compliance
 Maintenance Standard Inspection Process – Roles and Responsibilities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Quality Control (QC)</th>
<th>Quality Control/Assurance (QC/QA)</th>
<th>Independent (Quality) Assurance (IA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whom</td>
<td>Maintenance Supervisor</td>
<td>District Maintenance Stormwater Coordinator</td>
<td>Third Party</td>
</tr>
<tr>
<td>Authority</td>
<td>SWMP</td>
<td>Deputy District Director, Maintenance SWMP</td>
<td>NPDES Permit and SWMP</td>
</tr>
</tbody>
</table>

**Protocol/Frequency**
- Inspects field activities as part of routine tasks.
- Facility manager performs monthly facility inspection(s).
- Annually Inspect 10 Activities per District.
  - Annually inspect all facilities that pose a significant risk to water quality.
  - Annually Inspect 20% facilities per District. Inspect all facilities over 5 years.
- Annually Inspect 10 Activities per District.
  - Annually inspect all facilities that pose a significant risk to water quality.
  - Annually Inspect 20% facilities per District. Inspect all facilities over 5 years.

*Independent Assurance (Third Party) is accompanied by District Staff and HQ Compliance Team*

*Figure 4-1: Maintenance Stormwater Authority – Roles and Responsibilities*
*Some variability in job titles by District

Figure 4-2: Stormwater Quality Assurance Typical Lines of Authority*
Maintenance Stormwater Quality Response Process

**Standard Inspection Process**

1. Planned Activity Inspections
2. Planned Facility Inspections
   - Overall assessment of compliance with requirements
   - Document findings and observations
3. Are corrective actions needed?*
   - YES
   - Is it a Facility?
     - YES
     - Revisit and document
     - Final Documentation/Report
     - YES
4. Were the corrective actions adequate?
   - NO
   - NO
   - Final Documentation/Report

**Additional Inspection Triggers:**
- Extreme Weather
- Enforcement Actions
- New permits or regulations
- Public/regulatory referrals
- Reported potential IC/ID

**Enforcement Response Plan Process**

1. Level 4: Director
2. Level 3: District Director
3. Level 2: Deputy District Director, Maintenance
4. Level 1: Region Manager

**Possible Corrective Action(s):**
- Focused Training
- Administrative Action
  - BMP Installation
  - Resource Allocation
  - Other Corrective Action
- Programmatic Correction
  - Guidance Improvements
  - Programmatic Training
  - Effectiveness Evaluation/Correction
  - Directives

*Critical findings are immediately elevated to the ERP process

Figure 4-3: Maintenance Stormwater Quality Response Plan Process
4.4 Maintenance Standard Inspection Procedures

4.4.1 Maintenance Compliance Requirements – Maintenance Activities

Caltrans’ Maintenance Staff Guide (CTSW-02-057), dated May 2003, revised October 2009, is the primary document specifying how roadway maintenance activities must be carried out to protect stormwater quality and comply with the Caltrans NPDES Stormwater Permit. Maintenance Inspection Procedure

Over 50 maintenance activities are identified in the Maintenance Staff Guide. These maintenance activities are grouped into twelve Families of Activities that represent work of a similar nature (see Appendix 2).

To maintain compliance with the SWMP, Caltrans developed and implemented Maintenance Activity Compliance Guidelines and Procedures and a standardized Maintenance Activity Stormwater Compliance Inspection Checklist (see Appendix 2) for all activity inspections. These procedures and checklists were developed in consultation with Caltrans’ Division of Environmental Analysis (DEA) to evaluate the overall effectiveness of stormwater pollution prevention practices, implementation of those practices, and the potential for pollutant discharge for maintenance activities.

4.4.2 Maintenance Compliance Requirements – Facilities

Maintenance facilities are reviewed for overall effectiveness of their stormwater pollution prevention implementation and their potential for pollutant discharge. The implementation of Maintenance BMPs in accordance with the Caltrans SWMP, Maintenance Staff Guide, and the site-specific FPPP are evaluated. The Maintenance BMPs reviewed include the following:

- Building and Grounds Maintenance
- Storage of Hazardous Materials (Working Stock)
- Material Storage Control (Hazardous Waste)
- Outdoor Storage of Raw Materials
- Vehicle and Equipment Fueling
- Vehicle and Equipment Cleaning
- Vehicle and Equipment Maintenance and Repair
- Aboveground and Underground Tank Leak and Spill Control
- Solid Waste Management

4.4.3 Findings Response

Maintenance Area Superintendents are responsible for reviewing QC inspection reports. Corrective actions implemented must be documented by the Maintenance Area Supervisor (activity inspections) or facility manager (facility inspections). For minor findings requiring
corrective actions, the Maintenance Area Supervisor (activity findings) or facility manager (facility findings) may determine adequacy of the corrective action, however this may also be verified by the DMSWC or the Maintenance Area Superintendent. Major findings corrective actions will be reviewed by the Maintenance Area Superintendent (with the assistance of the DMSWC) for adequacy. Determination of the adequacy of critical findings corrective actions is the responsibility of the Region Manager.

A monthly status report summarizing compliance review activities is provided to DEA – Stormwater and Division of Maintenance – Stormwater. The status report includes an up-to-date listing of all maintenance facility compliance ratings, a description of all facilities reviewed and other issues of note.

At the request of District and Headquarters personnel, District Maintenance Managers, or DMSWCs, the Compliance Review Team will present a briefing on field observations and discuss the findings of recent compliance reviews. These briefings will serve as a management tool for the District and will provide feedback to Division of Maintenance – Stormwater personnel for stormwater program improvement. In addition, the Compliance Review Team is available to participate in the quarterly Maintenance SWAT meetings to discuss the results and findings of the compliance reviews.

### 4.4.4 Maintenance Independent Quality Assurance Reviews

IA reviews are conducted year-round for both maintenance activities and maintenance facilities. During an IA review, the Third Party inspector performs an overall assessment of the activity’s or the facility’s compliance with stormwater pollution prevention requirements and notes where corrective actions are needed.

The selection process for the activities to be inspected is based on geographical location (target average of 10 activities in each District per year) and specific types of activities. The activity inspections focus on proper implementation of General BMPs and the BMPs associated with the twelve Families of Activities stated in the Maintenance Staff Guide.

HQ Maintenance Stormwater or HQ DEA Stormwater will notify each DMSWC of the tentative review dates scheduled for the District; however, the DMSWCs will not be notified which facilities or activities will be reviewed until the IA inspector arrives in the district.

Typically, the IA inspector will be accompanied on the IA reviews by the DMSWC, the Maintenance Area Supervisor or facility manager, and a representative from HQ Maintenance Stormwater. IA inspections are unannounced as much as possible without jeopardizing employee safety while also taking into account the need to have local field staff available to participate in the inspection.

When a maintenance activity can be temporarily stopped without incurring traffic delays or a potential public safety or employee safety issues, the inspection team will also provide informal on-the-job training for immediate site-specific guidance to maintenance area supervisors, facility managers, and their staff. The time allotted for each inspection is sufficient for the IA inspector to discuss observations and make recommendations.

Compliance is documented on standardized Caltrans stormwater compliance review checklists. The compliance checklists address the general Maintenance BMPs that apply to a majority of
maintenance activities and maintenance facilities. For maintenance facilities, the compliance inspections also review the FPPPs for each maintenance facility.

At the end of each IA inspection, the inspector will discuss his/her observations with the Maintenance Area Supervisor or facility manager, the DMSWC, and any other staff that participate in the inspection. Findings noted are reviewed. If critical findings or numerous major significant findings are noted, another IA review will be scheduled within a few weeks to review the adequacy of corrective actions implemented. If only minor findings are noted, the District will be responsible for ensuring adequate corrective actions are implemented via the ERP process.

Throughout the IA annual inspection cycle, on-going communications are maintained with Headquarters personnel inspection results. Monthly status reports are submitted to Headquarters staff and the DMSWCs that summarize inspection results by District and highlight and major or critical findings and potential program issues.

Critical findings or practices that are inconsistent with the Maintenance Staff Guide or result in a non-permitted discharge are immediately elevated to a Level 2 response with notice to Headquarters, with follow-up by the Chief Environmental Engineer.
5 Encroachment Permit Enforcement

Caltrans requires permittees to protect water quality and conform to Caltrans guidance, requirements and the provisions of the Caltrans NPDES Stormwater Permit as well as the State CGP.

The permit applicant is required to meet Caltrans standards and permit requirements for work within the Department ROW, including the development of a WPCP or SWPPP as applicable. Inspection of the activities will occur to ensure compliance (see Water Pollution Control Provisions, Appendix 3).

Most non-departmental activities that occur on Department property (other than the traveling public, residential or commercial leasing) are considered encroachment activities. The Department requires the non-departmental entity to apply for and be subject to the conditions of an Encroachment Permit. Before the Department issues some types of Encroachment Permits, it may also require cooperative agreements or highway improvement agreements with the project or facility sponsors. Encroachment Permits are issued for both construction and non-construction related activities, and must be obtained before the activity can begin.

The Department requires the non-departmental entity to file the NOI and seek coverage as the LRP under the CGP, as applicable, before issuing an Encroachment Permit for any construction activity either partially or completely within the state ROW (A.16). Caltrans oversight and inspection of non-departmental projects is limited to the portion of the project immediately adjacent to or within Caltrans’ ROW.

5.1 Permit Enforcement

Each Caltrans District is responsible for inspection of permitted work. Permit inspectors are assigned as required. Sometimes other Caltrans units, utility companies, local agencies, or private engineers hired by the permittee may be asked to perform inspection. If inspection is to be done by any of the above persons, the inspector must be approved by the District Permit Engineer before commencement of work.

5.2 Citing of Permit Violations

The Caltrans inspector may cite a permittee on behalf of their contractor/representative, or cite both the permittee and the contractor for non-compliance of the permit conditions, general provisions or special provisions, and the Caltrans NPDES Stormwater Permit. The inspector will document the violation(s) of the permit conditions into the Encroachment Permit Report (Diary) form TR-0130.

A progressive enforcement program has been established for water quality violations of an Encroachment Permit. The State’s Representative/Inspector will provide a formal notification to both the permittee and their representative that a violation or violations have occurred, by providing a copy of the recorded violation(s) to both via mail or in person. Upon notification of a second violation, the State’s Representative/Inspector shall notify the permittee and their
contractor/representative that should a third violation occur, their permit(s) will be suspended or revoked.

Upon accumulation of the third violation, the state’s representative/inspector shall notify the permittee and their contractor/representative verbally and in writing that all work in the Caltrans’ ROW shall cease immediately, with the exception of work required to correct the finding noted relative to construction stormwater quality. The District Permit Engineer determines whether it is appropriate to either suspend or revoke the permit(s) depending upon the severity of the violations.

Instances of non-compliance that may significantly endanger health or the environment will be reported verbally to the RWQCB within 48 hours of the discovery of such instances.

5.3 Permit Probation

Permits for local entities, franchise holders and utility companies are granted by statute, and cannot be revoked by the District. The District Permit Engineer can place the permittee on probation for a period up to six months for violations of the terms of an Encroachment Permit. The permittee is informed that no work will be allowed to resume, until the Caltrans District can be assured that all conditions of the permit can be met. When a permittee is placed on probation, the District Permit Engineer may elect to suspend all permits (annuals) that bear the name of the permittee. The permittee will be required to submit an application for every instance and location separately, for the duration of probation.

If the District cannot resolve the issues of the violations, enforcement will be transferred to headquarters, and headquarters may suspend all permits in that permittee’s name statewide.

The District Permit Engineer shall notify the Maintenance Region Managers of the permittee’s suspension. Maintenance Area Supervisors ensure that any encroachment work on the Caltrans’ ROW is covered by an Encroachment Permit, and that any violations are posted and reported immediately to the Maintenance Area Superintendent.

5.4 Revocation of Permits

Any permit other than permits issued to a local entity, a franchise holder or a utility company can be revoked upon five days’ notice in accordance with General Provision #2 of the Encroachment Permit.

When a permittee (Private Property Owner) is placed on probation, and again violates permit conditions, the District Permit Engineer may elect to revoke their permit(s) and have their encroachment or facility removed from the Caltrans’ ROW.
6 Illegal Connection/Illlicit Discharge Enforcement

Caltrans has implemented an IC/ID process that describes the protocols used by the public and Caltrans staff to notify District staff of an illegal connection/illicit discharge, and the procedures employed by District Maintenance staff to investigate and resolve reports of IC/ID. The process relies upon the utilization of the Maintenance Service Request process. Caltrans provides outreach to the public for the reporting of IC/ID. The process provides District Maintenance staff with procedures on the following:

- initial documentation of alleged IC/IDs;
- inter-departmental notifications of alleged IC/IDs;
- investigation and source identification of IC/IDs, including actions to take when dealing with known or suspected hazardous materials;
- cleanup activities; and
- methods for legally pursuing parties responsible for IC/IDs when they can be identified for the purpose of:
  - Reimbursement of costs associated with Caltrans’ response to IC/IDs; and
  - Elimination of future IC/IDs within a District.

The process includes protocols for IC/ID surveillance, the generation of detailed and comprehensive documentation of all contacts with the alleged violator and all evidence establishing the violation, and a progressive enforcement mechanism used to stop the violator from continuing the IC/ID.

The IC/ID process includes the following procedures:

- Initial documentation of alleged IC/IDs;
- Inter-departmental notifications of alleged IC/IDs;
- Investigation and source identification of IC/IDs, including actions to take when dealing with known or suspected hazardous materials;
- Cleanup activities; and
- Methods for pursuing parties responsible for IC/ID when they can be identified for the purpose of (a) reimbursement of costs associated with Caltrans’ response to IC/ID and (b) elimination of future IC/IDs within a District.

The process includes protocols for IC/ID surveillance, the generation of detailed and comprehensive documentation of all contacts with the alleged violator and all evidence establishing the violation, and referral to the CHP for citation.

The IC/ID progressive enforcement mechanism includes the following actions:

- Written Warning – District staff will issue a “Notice of Illegal Discharge and Demand for Correction Action” letter to the property owner where an IC/ID is discovered or to the
individual responsible for the illegal discharge of material to a Caltrans ROW where the responsible party’s identity is ascertained.

- Removal of Connection/Discharge – District Maintenance staff or Caltrans designee may remove the IC/ID if it has not been corrected within the specified period in the written warning.

- Other Enforcement Actions – Caltrans is not a typical MS4, such as a city or county, with its own enforcement branch such as police, sheriff, or zoning board. Without its own enforcement branch, Caltrans relies on other agencies (i.e., CHP) for enforcement assistance. Caltrans may seek the enforcement assistance of the following jurisdictions to correct an IC/ID: U.S. EPA, California EPA, city and county environmental departments, city and county law enforcement, and/or municipal MS4s.

- Civil Action – If the IC/ID has not been corrected within a specified period of time, Caltrans may initiate proper court action party.

- Caltrans will track IC/ID reports from initial notification through resolution.

Caltrans also provides annual training sessions to District Stormwater staff on how to implement the IC/ID process, including instruction on how to update and use the IC/ID database. Training is documented in the database that tracks the dates, training course descriptions and names of attendees present at the training sessions held. DEA reviews the IC/ID database on an annual basis to ascertain the number of IC/ID reports, investigations, and abatements that occurred in a given District. DEA uses this information to identify and focus its efforts on areas experiencing elevated IC/IDs, and to determine if more frequent training and/or changes to existing curricula and training materials are needed.

6.1 Coordination with Local Jurisdictions

Caltrans’ twelve Districts collectively span the state and, as such, District boundaries overlap the boundaries of other local jurisdictions; including, but not limited to, law enforcement, fire protection, and city and county MS4 stormwater programs. Stormwater and non-storm discharges, as well as discharges from IC/IDs often do not occur isolated within a single jurisdiction; rather, they occur at the boundaries of adjacent jurisdictions or span multiple jurisdictions. Caltrans, as well as other local jurisdictions, would benefit from a coordinated approach to identifying and resolving IC/IDs. More broadly, Districts will also work with local jurisdictions charged with stormwater management and environmental protection to cooperatively reduce or eliminate the discharge of pollutants to receiving waters.

Caltrans’ Maintenance and Traffic Operations (Encroachment Permits) are responsible for the abatement of unauthorized encroachments, including dumping. District permitting staff may assist Maintenance in the abatement activities when appropriate, and when authorized by the District encroachment permit engineer. When an unauthorized encroachment is found, Maintenance staff will contact the responsible party and explain Caltrans’ Encroachment Permit requirements and prohibitions on dumping of material in state Right of Way. Unless the unauthorized encroachment is work that would normally be permitted, it will be removed. Caltrans can recover all administrative costs associated with unauthorized encroachments, in addition to statutory penalties.
Unauthorized encroachments that will be immediately removed from any State highway are listed as follows:

- Anything that obstructs full use of the highway or creates a potential safety problem;
- Rubbish;
- Advertising signs (exceptions see: 501.3A, 501.7, 501.7A&B, 501.8, 501.13A, 508.4, 517.7);
- Temporary political signs (See Section 5405.3 of the Business and Professions Code); and
- Illegal connections (unpermitted) to the state storm drain system.

If the unauthorized encroachment is work that would normally be considered for approval, and subsequent issuance of a permit, then the work must be discontinued. An Encroachment Permit application must be submitted, the request approved, and a permit issued before work can proceed.

District stormwater staff can request law enforcement assistance when the person placing an unauthorized encroachment refuses the order/demand to discontinue or remove the unauthorized encroachment.
7 Reporting Requirements

7.1 Noncompliance Reporting

Provision K.3.a of the Caltrans NPDES Stormwater Permit requires Caltrans to develop and implement a Report of Noncompliance. The following reporting protocol was developed in a cooperative effort between Caltrans and the SWRCB and RWQCB staff. Unless otherwise indicated in the District Work Plans, the District NPDES Stormwater Coordinator will make noncompliance reports to the RWQCB Executive Officer or designee.

7.1.1 Noncompliance Reporting Plan for Municipal and Construction\(^1\) Activities

7.1.1.1 Immediate Reporting

Conditions:

- Discharges of permitted stormwater and non-stormwater that violate or threaten to violate\(^2\) prohibitions, limitations and conditions of the Permit and which may endanger health or the environment;
- Discharges of prohibited non-stormwater discharges that may endanger health or the environment;
- Discharges of spills of petroleum products, hazardous materials or wastes, and toxic chemicals; and
- Operational/functional failure or serious damage\(^3\) to BMP control facilities that result in discharges that may endanger health or the environment.

Caltrans Action:

- Immediately notify the RWQCB no later than 24 hours after discovery of the incident;
- Follow-up in writing within 24 hours;
- Perform follow-up monitoring of major spills and/or perform conformation sampling to ensure that threats to waters have been eliminated as determined by the RWQCB; and
- Retain records for three years.

---

\(^1\) Discharges from construction sites regulated by the State CGP.

\(^2\) Examples of violations or excessive erosion to stream banks or beds, discharges that result in excessive sedimentation to the stream or water body, discharges of hazardous materials or waste or toxic materials, discharges with strong and/or lingering odors, discharges that cause high turbidity, discharges that show evidence of pollutant plume, and discharges that result in mortality of fish or aquatic species.

\(^3\) Failure or damage to a BMP that results in a system bypass or short-circuiting that results in a discharge meeting the characteristics described in Footnote 2.
7.1.1.2 Reporting in 5 Working Days

Conditions:
- Discharges of non-stormwater that are not authorized nor exempt by the Permit or any other NPDES permit and do not result in serious violations of the State Water Code;
- Discharges that result in violations of narrative and numeric prohibitions and limitations of the permit;
- Discharge that violate requirements of the CWA, 404 permits and 401 certifications;
- Discharges that result in violations of narrative and numeric standards and requirements specified in RWQCB Basin Plans and Statewide Water Quality Plans;
- Discharges from BMP control facilities that have failed or are seriously damaged and the discharges do not result in serious violations to Permit requirements; or
- Failure to submit documents or materials in accordance with the Permit or SWMP.

Caltrans Action:
- Notify RWQCB within five working days;
- Follow-up within 30 days with written report describing the noncompliance problem; corrective measures implemented, a time schedule; and
- Retain records for three years.

7.1.2 Reporting Plan for Construction Activities Only

7.1.2.1 48-Hour Notification

Condition:
- Runoff from the site is determined to be causing or contributing to exceedances of water quality standards.

Caltrans Action:
- Notify the RWQCB as soon as possible but within 48 hours;
- Submit written follow-up report within 14 calendar days; and
- Keep records for three years.

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4 Required by Provision K.3 of Caltrans Statewide NPDES Stormwater Permit, Order no. 99-06-DWQ.
5 See definition of serious violation in Footnote 2.
7.1.2.2 30-Day Notification

Condition:

- Site is not able to certify compliance in accordance with the annual certification requirements in the CGP; or

- All other incidents of noncompliance are not reported under the 48-hour requirement or under Section 7.1.1.1 or 7.1.1.2.

Caltrans Action:

- Submit reports to the RWQCB within 30 days of inability to certify or within 30 days of other instances of noncompliance; and

- Keep all records for three years.
Appendix 1 – Non-Compliance Notices to Contractors
December 17, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Five-Day Notice to Remedy Defaults of Contract, and Notice of Pending
Termination of Control of Contract

Gentlemen:

[Description of Nonconformance or discharge, reference to contract Special Provisions, or other relevant documents]

On December 15, 2003 M&M Construction was issued a letter stating that the Replace Sandy Creek Bridge project was in temporary suspension. The contractor was directed to immediately suspend all construction activities on the project and remove all concrete residues from the stream bank and dry streambed and properly dispose of this waste off of the State right of way. Contractor was also directed to complete all items of Water Pollution Control nonconformance noted in previous letters to the contractor (December 1, 2003 and December 8, 2003) prior to the Contractor being allowed to resume work. The letter also informed the contractor that failure to substantially complete clean up the discharge within 48 hours of the receipt of the letter might result in further contract sanctions including termination of control of the contract. The contractor has made no apparent effort to this date to complete the cleanup of the concrete spill, or provide any proposed schedule for the cleanup.

[Reference Standard Specifications and enforcement action]

Unless the contractor completes all cleanup of the referenced concrete spill and the contract nonconformance items included in the letters of December 1, 2003 and December 8, 2003 within the next 5 working days, in accordance with Section 8-1.08 of the Standard Specifications, the
December 8, 2003 letter.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

Attachment

c: Structure Representative
    SWPPP Inspector
    Area Construction Engineer
    Construction Storm Water Coordinator

    File 5.4, 20
    NRCO
December 21, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn:        Mr. Tom Smith, Water Pollution Control Manager (WPCM)
             Mr. Richard Jones, Project Manager

Subject:    Retention of Funds for Proposed Fines Associated with Recent RWQCB
            Enforcement Action

Gentlemen:

[Reference the Complaint and the contract Special Provisions authorizing the retention]

On December 20, 2003, the California Department of Transportation (Department), District 00 (District) received an Administrative Civil Liability Complaint (ACL) (Complaint No. 2003-0000) for the Replace Sandy Creek Bridge construction site located in Santa Tierra County. The ACL proposed a suggested civil liability of $9,400 ($940.00 per day x 10 days of violation) and a maximum civil liability of $100,000.00 (10,000.00 per day x 10 days of violation). The ACL was issued by the West Coast Regional Water Quality Control Board (RWQCB), Region 10. As stated in Section 10-1.01 (Water Pollution Control) of the contract Special Provisions, the Contractor shall be responsible for penalties assessed or levied on the Contractor or the Department as a result of the Contractor’s failure to comply with provisions in this section “Water Pollution Control” including, but not limited to, compliance with the applicable provisions of the Permits, the Manual, and Federal, State and local regulations and requirements as set forth therein. As authorized by the contract Special Provisions, retention of the maximum amount of the proposed penalties will be deducted from the monies due the Contractor in the next monthly progress pay estimate.

[Conditions for release of retention]

Funds may be retained by the Department until final disposition has been made by the RWQCB as to the penalties. Note that this is in addition to the 25% retention of the monthly progress pay estimate for nonconformance with contract special provisions that was indicated in my
(Attachment K) of the approved Storm Water Pollution Prevention Plan (SWPPP) describing today’s discharge, and submit it to the Engineer within 5 days as required in the Special Provisions section 10-1.01 (Water Pollution Control – Reporting Requirements).

[Date to comply and pending sanctions]

Failure to complete the clean up of the discharge within 48 hours of the receipt of this letter may result in further contract sanctions including Termination of Control of the contract in accordance with Section 8-1.08 of the Standard Specifications. Per the contract Special Provisions the Contractor shall be responsible for any penalties assessed or levied on the Contractor or the Department as a result of the Contractor’s failure to comply with the provisions of the Permits, the SWPPP, and Federal, State and local regulations and requirements.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction Engineer
   Construction Storm Water Coordinator

File 5.4, 20
NRCO
December 10, 2003

M & M Construction
1234 56th Street
North Highlands, CA 95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
     Mr. Richard Jones, Project Manager

Subject: Suspension of Work for Nonconformance with Standard Specifications, Contract Special Provisions and Discharge of Concrete Waste to Sandy Creek

Gentlemen:

A substantial discharge of Concrete grinding slurry to Sandy Creek was observed today at the eastern abutment of the new Sandy Creek Bridge. Discharge of waste materials derived from roadway work in a live stream channel where it could be washed away by high stream flows is a noncompliance with Section 7-1.01G - Water Pollution, of the Standard Specifications. Discharge of waste material to the waters of the State may also be a violation of the NPDES permit for General Construction Activities.

The Contractor is directed to immediately suspend all construction activities on the project and remove all concrete residues from the stream bank and dry streambed and properly dispose of this waste off of the State right of way. Contractor shall abide by all terms of all other project environmental permits while carrying out this cleanup operation. All items of Water Pollution Control nonconformance noted in previous letters to the contractor (December 1, 2003 and December 8, 2003) must also be completed to the satisfaction of the Engineer prior to the Contractor being allowed to resume work. A 25% retention will be deducted from the monies due the Contractor in the next monthly progress pay estimate.

Additionally, the Contractor is directed to prepared and submit a Notice of Discharge
ABC Concrete Finishing and its employees have shown either a complete lack of understanding or a blatant disregard for contract requirements in regards to water pollution control, and shall not be allowed to continue these practices. In accordance with Section 5-1.12 of the Standard Specifications – “Character of Workers”, ABC Concrete Finishing is hereby and on this date discharged from working on this project. Upon completion of all cleanup activities as directed in my previous Temporary Suspension of Work letter (December 10, 2003), subcontractor shall remove all equipment and personnel from the project site immediately.

[Reinstatement procedure per Construction Bulletin 03-06]
Should you or the subcontractor request reinstatement of the subcontractor, I will arrange a meeting with the project Construction Engineer to consider your request. At this meeting you will be informed of the reasons for the removal directive, and you will be afforded the opportunity to respond.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction Engineer
   Construction Storm Water Coordinator

File 5.4, 20
NRCO
December 11, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn:    Mr. Tom Smith, Water Pollution Control Manager (WPCM)
         Mr. Richard Jones, Project Manager

Subject: Discharge of Subcontractor – ABC Concrete Finishing

Gentlemen:

[Description of Nonconformance or discharge, reference to contract Special Provisions, or other relevant documents]

In your report of discharge for discharge of concrete slurry yesterday at the eastern abutment of the new Sandy Creek Bridge, you identify your subcontractor, ABC Concrete Finishing, as responsible for unloading a tanker full of concrete slurry into an unauthorized dumping location. The slurry was dumped near the edge of the stream bank where it overflowed the bank and discharged into the creek bed. As discussed in yesterday’s letter, this discharge is in nonconformance with Section 7-1.01G - Water Pollution, of the Standard Specifications.

In a conversation on the jobsite today with your superintendent, Bob Johnson, he stated to me he told ABC on several occasions to install and use lined concrete washouts per the contract plans and Special Provisions. Despite these reminders, ABC was responsible for unauthorized dumping of waste concrete at no less than two new locations north of the construction yard today. Unauthorized concrete washout is in nonconformance with Section 10-1.02 – Water Pollution Control, of the contract Special Provisions. In addition, you stated to me in a telephone conversation yesterday morning that ABC Concrete Finishing was responsible for the spills of concrete waste and concrete curing compound that were documented in my letter of Water Pollution Control nonconformance on December 3, 2003.

[State authority to dismiss subcontractor]
result in the enforcement of further contract sanctions including suspension of work on the project.

If you have any questions or concerns regarding this matter, please contact me at (510) 123-4567.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

Attachment

c: Structure Representative
   SWPPP Inspector
   Area Construction engineer
   District Construction Storm Water Coordinator

   File 5.4, 20
   NRCO
DEPARTMENT OF TRANSPORTATION
DISTRICT 3
OROVILLE CONSTRUCTION
2060 THIRD STREET
OROVILLE, CA 95965
PHONE (530)
MOBILE (530)
FAX (530)

December 8, 2003

03-123456
03-GLE-32KPR7.7/R9.6
Fed No
Replace Sandy Creek Bridge
CT 5.4A.182

M & M Construction
1234 56th Street
North Highlands, CA 95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Notice of Retention of 25% of Monthly Pay Estimate for Nonconformance with SWPPP Requirements

Gentlemen:

[Description of Nonconformance, reference Contract Special Provisions, or other relevant documents]

As was stated in my earlier letter dated December 3, 2003, this project has been found in nonconformance with requirements of Section 10-1.02-Water Pollution Control of the contract Special Provisions. The contractor was directed in that letter to correct items of nonconformance by December 5, 2003.

During the required bi-weekly SWPPP inspection by the State’s SWPPP inspector the afternoon of December 5, 2003, it was noted that required stabilized construction entrances had been constructed, however spills of concrete waste remained in several locations and no concrete washouts had been installed. In addition, spills of hazardous materials (concrete curing compound) were found on the project site, and containers of curing compound were stored in the construction yard without required secondary containment. Details and specific locations of these additional nonconformance items are documented on the December 5, 2003 SWPPP Inspection report attached. Since the contractor has failed to correct all of the items of nonconformance by the specified date, the Department will retain 25% of the next monthly estimate payment.

[Date to comply and pending sanctions]

All listed noncompliance items referenced above must be brought into compliance by the close of business on December 12, 2003. Failure to complete these items before the stated date may
Mr. Tom Smith
Mr. Richard Jones
December 3, 2003
Page 2

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction engineer
   District Construction Storm Water Coordinator

   File 5.4, 20
   NRCO
December 3, 2003

M & M Construction
1234 56th Street
North Highlands, CA 95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Notice of Nonconformance with Contract Water Pollution Special Provisions

Gentlemen:

This project has been found in nonconformance with contract Special Provision Section 10-1.02, -Water Pollution Control, for deficiencies in the implementation of Best Management Practices (BMPs).

Specifically, the following deficient items require immediate attention:

- Install Stabilized Construction Entrance / Exit (TC-1) at all ingress/egress locations along Community Road as indicated on drawing WPCD-4 of the contract plans.
- Install Concrete Washouts (WM-8) as required by the contract Special Provisions.
- Clean up spills of concrete and washout residue near south entrance to the construction yard and property dispose of according to contract requirements.

All work shall be completed by close of business on December 5, 2003. Failure to complete these items before the stated date may result in the enforcement of contract sanctions including retention of 25% of the next monthly progress pay estimate.

Sample letter B-1
December 3, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Notice of Nonconformance with Contract Water Pollution Special Provisions

Gentlemen:

[Description of Nonconformance, reference contract Special Provisions, or other relevant documents]

This project has been found in nonconformance with contract Special Provision Section 10-1.02, Water Pollution Control, for deficiencies in the implementation of Best Management Practices (BMPs).

Specifically, the following deficient items require immediate attention:

- Install Stabilized Construction Entrance / Exit (TC-1) at all ingress/egress locations along Community Road as indicated on drawing WPCD-4 of the contract plans.
- Install Concrete Washouts (WM-8) as required by the contract Special Provisions.
- Clean up spills of concrete and washout residue near south entrance to the construction yard and property dispose of according to contract requirements.

[Date to comply and pending sanctions]

All work shall be completed by close of business on December 5, 2003. Failure to complete these items before the stated date may result in the enforcement of contract sanctions including retention of 25% of the next monthly progress pay estimate.

Sample letter B-1
If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction engineer
   District Construction Storm Water Coordinator

File 5.4, 20
NRCO
December 8, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn:  Mr. Tom Smith, Water Pollution Control Manager (WPCM)  
       Mr. Richard Jones, Project Manager

Subject:  Notice of Retention of 25% of Monthly Pay Estimate for Nonconformance with 
          SWPPP Requirements

Gentlemen:

As was stated in my earlier letter dated December 3, 2003, this project has been found in 
nonconformance with requirements of Section 10-1.02-Water Pollution Control of the contract 
Special Provisions. The contractor was directed in that letter to correct items of nonconformance 
by December 5, 2003.

During the required bi-weekly SWPPP inspection by the State’s SWPPP inspector the afternoon 
of December 5, 2003, it was noted that required stabilized construction entrances had been 
constructed, however spills of concrete waste remained in several locations and no concrete 
washouts had been installed. In addition, spills of hazardous materials (concrete curing 
compound) were found on the project site, and containers of curing compound were stored in the 
construction yard without required secondary containment. Details and specific locations of 
these additional nonconformance items are documented on the December 5, 2003 SWPPP 
Inspection report attached. Since the contractor has failed to correct all of the items of 
nonconformance by the specified date, the Department will retain 25% of the next monthly 
estimate payment.

Sample letter B-2
result in the enforcement of further contract sanctions including suspension of work on the project.

If you have any questions or concerns regarding this matter, please contact me at (510) 123-4567.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

Attachment

c: Structure Representative
   SWPPP Inspector
   Area Construction engineer
   District Construction Storm Water Coordinator

   File 5.4, 20
   NRCO
December 11, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn:  Mr. Tom Smith, Water Pollution Control Manager (WPCM)
       Mr. Richard Jones, Project Manager

Subject:  Discharge of Subcontractor – ABC Concrete Finishing

Gentlemen:

[Description of Nonconformance or discharge, reference to contract Special Provisions, or other relevant documents]

In your report of discharge for discharge of concrete slurry yesterday at the eastern abutment of the new Sandy Creek Bridge, you identify your subcontractor, ABC Concrete Finishing, as responsible for unloading a tanker full of concrete slurry into an unauthorized dumping location. The slurry was dumped near the edge of the stream bank where it overflowed the bank and discharged into the creek bed. As discussed in yesterday’s letter, this discharge is in nonconformance with Section 7-1.01G - Water Pollution, of the Standard Specifications.

In a conversation on the jobsite today with your superintendent, Bob Johnson, he stated to me he told ABC on several occasions to install and use lined concrete washouts per the contract plans and Special Provisions. Despite these reminders, ABC was responsible for unauthorized dumping of waste concrete at no less than two new locations north of the construction yard today. Unauthorized concrete washout is in nonconformance with Section 10-1.02 – Water Pollution Control, of the contract Special Provisions. In addition, you stated to me in a telephone conversation yesterday morning that ABC Concrete Finishing was responsible for the spills of concrete waste and concrete curing compound that were documented in my letter of Water Pollution Control nonconformance on December 3, 2003.

[State authority to dismiss subcontractor]
ABC Concrete Finishing and its employees have shown either a complete lack of understanding or a blatant disregard for contract requirements in regards to water pollution control, and shall not be allowed to continue these practices. In accordance with Section 5-1.12 of the Standard Specifications – “Character of Workers”, ABC Concrete Finishing is hereby and on this date discharged from working on this project. Upon completion of all cleanup activities as directed in my previous Temporary Suspension of Work letter (December 10, 2003), subcontractor shall remove all equipment and personnel from the project site immediately.

[Reinstatement procedure per Construction Bulletin 03-06]
Should you or the subcontractor request reinstatement of the subcontractor, I will arrange a meeting with the project Construction Engineer to consider your request. At this meeting you will be informed of the reasons for the removal directive, and you will be afforded the opportunity to respond.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction Engineer
   Construction Storm Water Coordinator

File 5.4, 20
NRCO
December 10, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Suspension of Work for Nonconformance with Standard Specifications, Contract Special Provisions and Discharge of Concrete Waste to Sandy Creek

Gentlemen:

A substantial discharge of Concrete grinding slurry to Sandy Creek was observed today at the eastern abutment of the new Sandy Creek Bridge. Discharge of waste materials derived from roadway work in a live stream channel where it could be washed away by high stream flows is a noncompliance with Section 7-1.01G - Water Pollution, of the Standard Specifications. Discharge of waste material to the waters of the State may also be a violation of the NPDES permit for General Construction Activities.

The Contractor is directed to immediately suspend all construction activities on the project and remove all concrete residues from the stream bank and dry streambed and properly dispose of this waste off of the State right of way. Contractor shall abide by all terms of all other project environmental permits while carrying out this cleanup operation. All items of Water Pollution Control nonconformance noted in previous letters to the contractor (December 1, 2003 and December 8, 2003) must also be completed to the satisfaction of the Engineer prior to the Contractor being allowed to resume work. A 25% retention will be deducted from the monies due the Contractor in the next monthly progress pay estimate.

Additionally, the Contractor is directed to prepared and submit a Notice of Discharge
(Attachment K) of the approved Storm Water Pollution Prevention Plan (SWPPP) describing today’s discharge, and submit it to the Engineer within 5 days as required in the Special Provisions section 10-1.01 (Water Pollution Control – Reporting Requirements).

[Date to comply and pending sanctions]

Failure to complete the clean up of the discharge within 48 hours of the receipt of this letter may result in further contract sanctions including Termination of Control of the contract in accordance with Section 8-1.08 of the Standard Specifications. Per the contract Special Provisions the Contractor shall be responsible for any penalties assessed or levied on the Contractor or the Department as a result of the Contractor’s failure to comply with the provisions of the Permits, the SWPPP, and Federal, State and local regulations and requirements.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Structure Representative
   SWPPP Inspector
   Area Construction Engineer
   Construction Storm Water Coordinator

   File 5.4, 20
   NRCO
December 21, 2003

03-123456
03-GLE-32KPR7.7/R9.6
Fed No
Replace Sandy Creek Bridge
CT 5.4A.182

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn: Mr. Tom Smith, Water Pollution Control Manager (WPCM)
Mr. Richard Jones, Project Manager

Subject: Retention of Funds for Proposed Fines Associated with Recent RWQCB Enforcement Action

Gentlemen:

[Reference the Complaint and the contract Special Provisions authorizing the retention]
On December 20, 2003, the California Department of Transportation (Department), District 00 (District) received an Administrative Civil Liability Complaint (ACL) (Complaint No. 2003-0000) for the Replace Sandy Creek Bridge construction site located in Santa Tierra County. The ACL proposed a suggested civil liability of $9,400 ($940.00 per day x 10 days of violation) and a maximum civil liability of $100,000.00 (10,000.00 per day x 10 days of violation). The ACL was issued by the West Coast Regional Water Quality Control Board (RWQCB), Region 10. As stated in Section 10-1.01 (Water Pollution Control) of the contract Special Provisions, the Contractor shall be responsible for penalties assessed or levied on the Contractor or the Department as a result of the Contractor’s failure to comply with provisions in this section “Water Pollution Control” including, but not limited to, compliance with the applicable provisions of the Permits, the Manual, and Federal, State and local regulations and requirements as set forth therein. As authorized by the contract Special Provisions, retention of the maximum amount of the proposed penalties will be deducted from the monies due the Contractor in the next monthly progress pay estimate.

[Conditions for release of retention]
Funds may be retained by the Department until final disposition has been made by the RWQCB as to the penalties. Note that this is in addition to the 25% retention of the monthly progress pay estimate for nonconformance with contract special provisions that was indicated in my
December 8, 2003 letter.

If you have any questions or concerns regarding this matter, please contact me at (123) 456-7890.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

Attachment

c: Structure Representative
   SWPPP Inspector
   Area Construction Engineer
   Construction Storm Water Coordinator

   File 5.4, 20
   NRCO
December 17, 2003

M & M Construction
1234 56th Street
North Highlands, CA  95660

Attn:  Mr. Tom Smith, Water Pollution Control Manager (WPCM)
       Mr. Richard Jones, Project Manager

Subject:  Five-Day Notice to Remedy Defaults of Contract, and Notice of Pending Termination of Control of Contract

Gentlemen:

[Description of Nonconformance or discharge, reference to contract Special Provisions, or other relevant documents]

On December 15, 2003 M&M Construction was issued a letter stating that the Replace Sandy Creek Bridge project was in temporary suspension. The contractor was directed to immediately suspend all construction activities on the project and remove all concrete residues from the stream bank and dry streambed and properly dispose of this waste off of the State right of way. Contractor was also directed to complete all items of Water Pollution Control nonconformance noted in previous letters to the contractor (December 1, 2003 and December 8, 2003) prior to the Contractor being allowed to resume work. The letter also informed the contractor that failure to substantially complete clean up the discharge within 48 hours of the receipt of the letter might result in further contract sanctions including termination of control of the contract. The contractor has made no apparent effort to this date to complete the cleanup of the concrete spill, or provide any proposed schedule for the cleanup.

[Reference Standard Specifications and enforcement action]

Unless the contractor completes all cleanup of the referenced concrete spill and the contract nonconformance items included in the letters of December 1, 2003 and December 8, 2003 within the next 5 working days, in accordance with Section 8-1.08 of the Standard Specifications, the
Department will start the termination process.

[All five-day notices and termination of control letters must include the following language]

Your default may subject you to a review of your responsibility to perform future work with the Department.

If you have any questions or concerns regarding this matter, please contact me at (530) 123-4567.

Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Area Construction Engineer
Construction Field Coordinator
District NPDES Coordinator
Construction Storm Water Coordinator
Contractor’s Surety Company

File 5.4, 20
NRCO
Department will start the termination process.

[All five-day notices and termination of control letters must include the following language]

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Sincerely,

ORIGINAL SIGNED BY

Resident Engineer

c: Area Construction Engineer
    Construction Field Coordinator
    District NPDES Coordinator
    Construction Storm Water Coordinator
    Contractor’s Surety Company

    File 5.4, 20
    NRCO
Appendix 2 – Maintenance Items and Checklists
Table 1
Family of Activities and Description

<table>
<thead>
<tr>
<th>Family of Activity</th>
<th>DISCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>General BMPs</td>
<td>BMPs generally applicable to all maintenance activities, such as scheduling, spill prevention and control, sanitary/septic waste management, material use, vehicle/equipment cleaning, fueling, and maintenance, illicit connection, illegal spill discharge control, and housekeeping</td>
</tr>
<tr>
<td>A Family-Flexible Pavement</td>
<td>Asphalt Cement Crack and Joint Grinding/Sealing; Asphalt Paving; Structural Pavement Failure (Dig-outs) Pavement Grinding/Paving; Emergency Pothole Repair; and Sealing Operations</td>
</tr>
<tr>
<td>B Family - Rigid Pavement</td>
<td>Portland Cement Crack and Joint Sealing; Mudjacking and Drilling; and Concrete Slab/Slab Repair</td>
</tr>
<tr>
<td>C Family - Slope/Drain/vegetation</td>
<td>Shoulder Grading; Nonlandscape Chemical Vegetation Control; Nonlandscape Mechanical Vegetation Control/Mowing; Nonlandscape Tree/Shrub Pruning; Brush Chipping, Tree/Shrub Removal; Fence Repair; Drainage Ditch/Channel Maintenance; Drain/Culvert Maintenance, and Curb/Sidewalk Repair</td>
</tr>
<tr>
<td>D Family - Litter/Debris/Graffiti</td>
<td>Sweeping Operations; Litter and Debris Removal; Emergency Response and Cleanup Practices; and Graffiti Removal</td>
</tr>
<tr>
<td>E Family - Landscaping</td>
<td>Chemical Vegetation Control; Manual Vegetation Control; Landscape Mechanical Vegetation Control/Mowing; Landscape Tree/Shrub Pruning, Brush Chipping, Tree/Shrub Removal; Irrigation Line Repair; and Irrigation</td>
</tr>
<tr>
<td>F Family - Environmental</td>
<td>Storm drain stenciling; Roadside Slope Inspection; Roadside Stabilization; Storm Water Treatment Devices; and Traction Sand Trap Devices</td>
</tr>
<tr>
<td>H Family - Bridges</td>
<td>Welding and Grinding; Sandblasting, Wet Blast (sand injection) and Hydroblasting; Painting; Bridge Repairs, and Draw Bridge Maintenance</td>
</tr>
<tr>
<td>J Family - Other Structures</td>
<td>Pump Station Cleaning; Tube and Tunnel Maintenance and Repair; Ferryboat Operations, Tow Truck Operations, and Toll Booth Lane Scrubbing Operations</td>
</tr>
<tr>
<td>K Family - Electrical</td>
<td>Sawcutting for Loop Installation</td>
</tr>
<tr>
<td>M Family - Traffic Guidance</td>
<td>Thermoplastic Stripping and Marking; Paint Stripping and Marking; Raised/Recessed Pavement Marker Application and Removal; Sign Repair and Maintenance; Median Barrier and Guard Rail Repair; and Emergency Energy Attenuator Repair</td>
</tr>
<tr>
<td>R Family - Snow and Ice Removal</td>
<td>Snow Removal, and Ice Removal</td>
</tr>
<tr>
<td>S Family - Storm Maintenance</td>
<td>Minor Slides and Slipouts Cleanup/Repair</td>
</tr>
</tbody>
</table>

2.2 ACTIVITY INSPECTIONS

The Team inspected approximately 20 individual maintenance activities in each District, for a total of 249 inspections. The selection process for the activities to be inspected was based on geographical location (to target 20 activities in each District) and specific types of activities. The activity inspections focused on proper implementation of General BMPs and the BMPs associated with the twelve Families of Activities identified in Table 1. The Database Summary (Attachment A) identifies the maintenance activities that were inspected during the reporting period.

2.2.1 Review Criteria and Checklist

To maintain compliance with the SWMP, Caltrans developed and implemented Maintenance Activity Compliance Guidelines and Procedures (Attachment B) and a standardized Maintenance Activity Storm Water Compliance Inspection Checklist (Attachment C) for all activity inspections. These procedures and checklist were developed in consultation with the Department’ Environmental Program Division and Maintenance Division to evaluate the overall effectiveness of storm water pollution prevention
# Caltrans Maintenance Site Storm Water Compliance Review Checklist

<table>
<thead>
<tr>
<th>District: Weather Conditions:</th>
<th>Date:</th>
<th>Overall Activity Rating*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family of Activity:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Description of Activity:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Supervisor/Lead Worker:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maintenance Facility Assigned to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Inspector(s):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attendees:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Date of last BMP Tailgate Meeting for this Activity:</strong></td>
<td>Documented: Yes No</td>
<td></td>
</tr>
<tr>
<td><strong>Recommend Additional Training for this Activity:</strong></td>
<td>Yes No</td>
<td></td>
</tr>
</tbody>
</table>

### BMPs

<table>
<thead>
<tr>
<th><strong>CRITERION</strong></th>
<th><strong>BMP RATING</strong>*</th>
<th><strong>COMMENT NUMBER(S)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General BMPs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A Family - Flexible Pavement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B Family - Rigid Pavement</strong></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>S Family - Storm Maintenance</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Description of Rating

1. The site is in compliance with the Storm Water Management Plan (SWMP).
2. Minor deficiencies noted. The site is in compliance with the SWMP.
3. Major deficiency. Prompt correction required. A BMP tailgate meeting will be conducted by ___________________
4. Critical deficiency. Immediate correction required. A BMP tailgate meeting will be conducted by ___________________

A. Overall implementation of BMPs is highly effective.
B. Overall implementation of BMPs is moderately effective.
C. Major and critical deficiencies in overall implementation of BMPs.
Appendix 3 – Water Pollution Control Provisions – Encroachment Permit
1. GENERAL: The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP) that would require a waste discharge identification number or coverage under the California Construction General Permit (Order No. 2009-0009-DWQ, NPDES No CAS000002). The Permittee shall comply with the following Special Provisions and the direction of the State Representative.

2. NPDES REQUIREMENTS: The Permittee shall be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements. It is the Permittee’s responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices before performing daily work activities. Installation and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site. 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, and 9) illicit connection, illegal discharge detection and reporting. The Permittee shall report to the state representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee shall also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency shall be provided to the State representative within 48 hours of reported activity. For additional information on storm water compliance, visit the State Water Resources Control Boards storm water Website at http://www.waterboards.ca.gov/water_issues/programs/stormwater

3. RESPONSIBILITY FOR DEBRIS REMOVAL: The Permittee shall be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.

4. SPOILS AND RESIDUE: The Permittee shall vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. shall be washed into a drainage system.

5. SWEEPING: Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective. Roadways or work areas shall not be washed down with water. Street sweeping operations must conform to Section 13-6.02 Material Management (Storage & Stockpiles), Water Pollution Control, of the State of California standard specifications for construction (most current version). No such protection measures shall cause an obstruction to the traveling public. The Permittee shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site in accordance to section 13-4.03B(1-3) Spill Prevention and Control, Water Pollution Control, of the State of California standard specifications for construction (2010 version).

6. VEHICLES AND EQUIPMENT: Permittee shall prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

7. MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT: Maintenance and fueling of equipment shall not result in any pollution at the job site. The Permittee shall immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.

8. CLEANING VEHICLES AND EQUIPMENT: Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee shall clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc shall be used in State right of way. Any water from this operation shall be collected and disposed of at an appropriate site. Containment berms or dikes shall be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill-cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.

9. DIESEL FUELS: The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.

10. WEATHER CONDITIONS AT WORKSITE: Any activity that would generate fine particles or dust that could be transported off site by stormwater shall be performed during dry weather.

11. HOT MIX ASPHALT: Runoff from washing hot mix asphalt shall not enter into any drainage conveyances.

12. PROTECTION OF DRAINAGE FACILITIES: The Permittee shall protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of the State of California standard specifications for construction (most current version). No such protection measures shall cause an obstruction to the traveling public. The Permittee shall implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site in accordance to section 13-4.03B(1-3) Spill Prevention and Control, Water Pollution Control, of the State of California standard specifications for construction (2010 version).

13. PAINT: Rinsing of painting equipment and materials is not permitted in state right-of-way. When thoroughly dry, dispose of the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner shall be disposed of at an approved hazardous waste site.

14. CONSTRUCTION MATERIALS: Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, shall conform to section 13-4.03C Material Management (Storage & Stockpiles), Water Pollution Control, of the State of California standard specifications for construction (2010 version).

15. CONCRETE EQUIPMENT: Concrete equipment shall be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.
16. EXISTING VEGETATION: Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation shall be replaced as directed by the State Representative.

17. SOIL DISTURBANCE: Soil disturbing activities shall be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures shall be implemented in advance of soil disturbing activity.

18. SLOPE STABILIZATION AND SEDIMENT CONTROL: Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of the State of California (2010 version) standard specifications for construction during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height.

19. STOCKPILES: Stockpiles containing aggregate and/or soil shall be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and shall be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles shall be stored on an impermeable surface and covered with 9mil plastic to prevent contact with water.

20. DISCOVERY OF CONTAMINATION: The State Representative shall be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.

21. SANITARY AND SEPTIC WASTE: Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when using an on-site disposal system.

22. LIQUID WASTE: Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other nonstorm water liquids not covered under separate waste water permits shall be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal.

23. WATER CONTROL AND CONSERVATION: Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff water, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite water.

24. PILE DRIVING: Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from storm water run-on when not in use.

25. DEWATERING: Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations shall comply with the latest Caltrans guidelines. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee shall provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.01B Submittals, Water Pollution Control, of the State of California standard specifications for construction (2010 version). A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board shall be provided to the State representative.
APPENDIX D  INCIDENT REPORT FORM
Incident Report Form

**Type of incident:**  ☐ Field  ☐ Administrative

**Name of person completing this form:** _______________________________________

**Person’s agency name and address:** _______________________________________

**Person’s phone and e-mail:** ____________________________________________

For Field incidents complete Sections 1 and 3. For Administrative incidents complete Section 2. See Non-Compliance Notification Schedule on Page 2.

**SECTION 1: Emergency or Field incidents**

| Date(s) and time(s) of incident: | 1. Start date / time: |
| Location of Incident: | 2. End date / time: |
| County: | 3. Nearest city / town: |
| County: | 4. Street address / nearest cross street: |
| | 5. Latitude / Longitude: |
| | 6. Additional location detail: |

**Materials involved in the incident:**  (use Comments Section below if necessary):

| 6. Name(s) of material(s) discharged: |
| 7. Approximate quantity discharged (specify units): |
| 8. Approximate concentration of material: |

Discharge to surface water?

☐ No  ☐ Yes  If yes, answer questions 9-11

| 9. Name of waterbody: |
| 10. Apparent effects (if any) on waterbody: |
| 11. Estimated extent of impacts to waterbody: |

Was the Regional Water Board (RWB) notified?

☐ No  ☐ Yes  If yes, answer questions 15-17

| 15. Name of RWB contact: |
| 16. RWB contact’s phone / e-mail: |
| 17. Name of person making the notification: |

Were downgradient communities / people notified?

☐ No  ☐ Yes  If yes, answer questions 18-20

| 18. Date and time of notification: |
| 19. Name of person making the notification: |
| 20. Phone number of person making the notification: |

| 21. Name of downgradient community/ person: |

**Emergency Incident detail (check all that apply):**  ☐ Embankment Failure  ☐ Traffic Accident  ☐ Spill

☐ Other (describe):  ____________________________________________

**Field Non-Compliance**  (check all that apply)

Lack of BMP(s), ineffective implementation of BMP(s), or failure of BMP(s) resulted in a discharge of pollutants to surface water.

Monitoring data indicates an exceedance of a defined standard. Defined standards include TMDL Waste Load Allocations and water quality standards in the Water Quality Control Plans and promulgated policies and regulating of the State and regional Water Boards including California Ocean Plan limitations or prohibitions.

Discharge of prohibited non-storm water.

Failure to comply with facility pollution prevention plan (FPPP) requirements.

Failure to comply with inspection, monitoring, and reporting requirements and protocols.

Other (describe - use Comments Section below if needed):

**SECTION 2: Administrative Non-Compliance**  (check all that apply)

Failure to submit reports or documents required by the Permit and/or SWMP, failure of timely submittal, and/or failure to submit required information.

Failure to develop and/or maintain a site-specific FPPP or to implement any other procedural requirement of the Permit.

Other (describe - use Comments Section below if needed):  ____________________________________________
SECTION 3: Description of Incident

Activities in the area prior to the incident (if any):

Initial assessment of any impact caused by the discharge (if any):

Samples collected and analyses requested (if any):

Steps taken to mitigate damage and prevent reoccurrence (if any):

Current Status:

Schedule for proposed mitigation/abatement (if any):

Other Comments:

Non-Compliance Notification Schedule

<table>
<thead>
<tr>
<th>Type of Incident</th>
<th>Within 5 Working Days (Verbal)</th>
<th>Within 10 Working Days (Written)</th>
<th>Within 30 Calendar Days (Written)</th>
<th>In Annual Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field1</td>
<td>Notify RWB Executive Officer</td>
<td>To RWB Executive Officer and copies to Dept. HQ</td>
<td>—</td>
<td>Chronological summary and status of all incidents</td>
</tr>
<tr>
<td>Administrative2</td>
<td>Notify RWB Executive Officer or SWB Contact2</td>
<td>—</td>
<td>To RWB Executive Officer, SWB Executive Director, and copies to Dept. HQ</td>
<td>Chronological summary and status of all incidents</td>
</tr>
</tbody>
</table>

1 Failure to meet any non-administrative requirement of the SWMP or Permit or to meet any applicable water quality standard. This includes failure to install required BMPs or conduct required monitoring or maintenance. It also includes discharges or prohibited non-storm water that do not meet the definition of emergency incidents. It does not include determinations by the Department or a regional Water Board Executive Officer that a discharge is causing or contributing to an exceedance.

2 Failure to meet any administrative or procedural requirement of the SWMP or Permit including submission of required reports, notifications and certifications. The report of non-compliance shall be submitted to the same organization (State or Regional Water Board) to which the required report was originally due.

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

<table>
<thead>
<tr>
<th>Signature of Contractor (if applicable)</th>
<th>Title</th>
<th>Telephone</th>
<th>Date:</th>
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<tr>
<th>Signature of Department Representative</th>
<th>Title</th>
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