CHAPTER F MAINTENANCE STORMWATER MANAGEMENT PROGRAM

CHAPTER F

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F.00 Introduction

The Headquarters Division of Maintenance and District Maintenance Divisions (referred to herein as Maintenance) are responsible for the care and upkeep of State highways. Maintenance performs activities that may impact the water quality of groundwater and surface waters. On September 2012, the State Water Resources Control Board (SWRCB) reissued a National Pollutant Discharge Elimination System (NPDES) Permit to Caltrans to regulate stormwater discharges from properties, facilities and activities effective July 1, 2013. The permit required the Department to implement a Stormwater Management Plan (SWMP) that describes the programs and practices proposed to reduce or eliminate the discharge of pollutants to storm drains and receiving waters. The Maintenance Stormwater Management Program is the component of the SWMP that:

- Defines and implements Maintenance Best Management Practices (BMPs) to ensure all Division of Maintenance facilities are in compliance with NPDES requirements
- Defines and implements BMPs to ensure all Maintenance personnel activities on State highways and within the Department's right of way are in compliance with NPDES requirements
- Manages potential stormwater pollution from accidental spills, illicit connections, illegal discharges, and illegal dumping within the Department's right of way
- Maintains stormwater treatment BMPs
- Conducts periodic erosion inspection and scheduled repairs of State highway vegetated slopes

It is the policy of this Department that the Division of Maintenance will:

• Implement the Maintenance Stormwater Management Program described in the Statewide Stormwater Management Plan

Implement the BMPs as defined in the Maintenance Staff Guide

- Follow all appropriate State, federal, and local laws and regulations regarding water quality including all court orders and consent decrees
- Meet all requirements of Regional Water Quality Control Board (RWQCB) and SWRCB permits and orders

Maintenance will adapt its program to meet changes in law and to keep current as new technologies are developed.

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F.01 Responsible Parties

The Division of Maintenance is responsible for developing this chapter and for making revisions as needed.

In conjunction with the Division of Environmental Analysis (DEA), the Division of Maintenance is responsible for the development and update of the Maintenance Staff Guide. The Staff Guide is the guidance document that provides detailed descriptions of BMPs for NPDES permit and SWMP compliance in maintenance activities, and instructions for implementation of these practices in the districts.

The Division of Maintenance is responsible for coordinating with the DEA, the designated lead for the Department's stormwater program development and implementation, to ensure that this chapter and other Maintenance Stormwater Management Program documents are not in conflict with overall Departmental policy.

The following persons are responsible for implementing the Division of Maintenance Stormwater Management Program policy:

The **Chief**, **Division of Maintenance**, is responsible for statewide implementation of policies and procedures, and the personnel and equipment of the Maintenance Division. This includes ensuring compliance with all elements of the Statewide SWMP required by the Maintenance Division and approval of new maintenance BMPs.

The Chief, Office of Maintenance Stormwater and Environmental Compliance (Chief, OSWEC) is the liaison with Headquarters Environmental Division. The Chief OSWEC provides guidance to District NPDES and District Maintenance Stormwater Coordinators regarding water quality issues. The Chief OSWEC is responsible for overseeing development of stormwater guidance documents used by Maintenance.

The Districts are responsible for implementing the SWMP within the district, and complying with the permit and any RWQCB-specific requirements.

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. This includes ensuring compliance with all elements of the SWMP required to be implemented by the District Maintenance Divisions. The Deputy District Director, Maintenance provides direct supervision to the Maintenance Region Managers.

Maintenance Region 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 Area Superintendent within each region or program.

Maintenance Area Superintendents direct Maintenance activities within Maintenance areas, and provide direction to Maintenance Supervisors. Maintenance areas contain multiple

Maintenance facilities. The Superintendents are responsible for ensuring that Maintenance BMPs are implemented in their jurisdictions as follows:

- (A) Directing personnel or contractors to implement the Maintenance Stormwater Management Program requirements
- (B) Assuring that personnel under their supervision receive training on stormwater management practices
- (C) Evaluating the performance of personnel with respect to stormwater management duties and responsibilities
- (D) Reviewing the implementation and effectiveness of the Maintenance Stormwater Management Program BMPs

Maintenance 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.

District NPDES Stormwater Coordinators serve as liaison with the Water Quality Program. Liaison activities include conducting meetings related to stormwater management issues with the stormwater coordinators from each functional unit, and with other municipal permittees to discuss problems and concerns. Liaison activities also include regular communications with representatives of the RWQCB. The functional unit stormwater coordinators will assist their district divisions in implementing the division's stormwater management activities.

District Maintenance Stormwater Coordinators are established in each district. Districts have designated stormwater coordinators, in other functional units such as, Environmental, Construction and Design. District Maintenance Stormwater Coordinator responsibilities include:

- (A) Serving as the point of contact for regulatory inquiries regarding implementation of the Maintenance Stormwater Management Program
- (B) Reviewing proposed stormwater compliance programs for elements related to Maintenance activities
- (C) Monitoring and evaluating BMPs implementation and effectiveness as related to Maintenance activities
- (D) Participating in meetings related to stormwater management issues with stormwater coordinators from other functional units in the district to discuss problems and concerns, and areas that need attention
- (E) Scheduling periodic training of maintenance personnel in stormwater quality management and BMP implementation
- (F) Compiling and preparing materials and supporting data for the Division of Maintenance portion of the Department's Statewide Stormwater Management Program Annual Report to the SWRCB

- (G) Developing and certifying new or revised Facility Pollution Prevention Plans (FPPP) to be in compliance with Permit requirements
- (H) Evaluating treatment BMPs and other stormwater elements of a project turned over to Maintenance by Construction upon 90% completion. New treatment BMPs are entered in the IMMS TBMP inventory for regular maintenance.

District Hazardous Material Coordinators (also referred to as District Hazardous Material Managers) coordinate response to spills of hazardous substances on Caltrans right of way, and coordinates management of Caltrans-generated hazardous waste. The Coordinator is usually responsible for providing training information associated with hazardous materials, and may be responsible to assist in implementing stormwater quality protection practices in the district.

District Landscape Specialists provide guidance regarding use of pesticides and chemical control of vegetation in field Maintenance operations. The Landscape Specialist is responsible for ensuring that all chemicals used in the district are approved by the responsible regulatory agencies.

Maintenance Leadworkers conduct tailgate meetings (in absence of the Maintenance Supervisor) to review environmental concerns, BMPs, and ensures that appropriate procedures are implemented during Maintenance activities.

Maintenance Workers/Landscape Workers/Equipment Operators are responsible for implementing BMPs while conducting Maintenance activities.

District Equipment Managers ensure vehicle inspections include checks for leaks on district Maintenance vehicles and implementation of other stormwater related BMPs, as applicable.

Equipment Shop Superintendents are the front line managers who direct vehicle servicing and repair activities within an equipment shop or service region.

Mechanics (resident/traveling) are responsible for implementing BMPs while conducting vehicle servicing and repair activities.

F.02 Background and Legal Requirements

Federal regulations for controlling discharges of pollutants from Municipal Separate Storm Sewer Systems (MS4s), construction sites, and industrial activities were incorporated into the National Pollutant Discharge Elimination System (NPDES) permit process by the 1987 amendments to the Clean Water Act (CWA), and the federal stormwater regulations issued by the U.S. Environmental Protection Agency (EPA) in 1990. The federal stormwater regulations require municipal, construction and industrial stormwater discharges to comply with an NPDES permit.

In California, the EPA delegated NPDES permitting authority to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs).

Under federal regulations, aspects of Caltrans facilities and highway systems are under the jurisdiction of NPDES stormwater regulations for two primary reasons:

- (A) Highways and related facilities are served by extensive stormwater drainage systems that in urban areas are often connected to and are comparable to municipal storm drain systems (MS4s) which are covered explicitly in the regulations.
- (B) Construction of highways and related facilities often results in soil disturbance for which specific requirements are contained in the federal regulations and the State's General Permit for Stormwater Discharges Associated with Construction Activity.

To achieve a consistent approach to comply with the stormwater regulations, Caltrans determined that a statewide permit would be the most effective approach to address its activities in all districts, and worked with the State Water Resources Control Board (SWRCB) to achieve its stormwater program objectives.

The SWRCB reissued an NPDES Statewide Permit (Permit) to Caltrans in 2012 to regulate stormwater discharges from Caltrans' rights of way both during and after construction, as well as from facilities and operations. The Permit also gave the RWQCBs the option to specify additional requirements considered necessary to meet water quality standards. Each facility is required to have a copy of the Caltrans NPDES Statewide Stormwater Permit which can be downloaded from the State Water Resources Control Board Stormwater Program website http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml.

The 2012 Permit General Discharge Prohibition, A.1 states that "Stormwater discharges containing pollutants from the Department's Municipal Separate Storm Sewer System (MS4) that have not been reduced to the Maximum Extent Practicable (MEP), are prohibited. The Department shall achieve the pollutant reductions described in the prohibitions through implementation of the provisions of the Permit and the approved SWMP." The MEP standard involves applying BMPs that are effective in reducing or eliminating the discharge of pollutants. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff.

The Permit directs Caltrans to implement and maintain an effective SWMP to reduce the discharge of pollutants to stormwater drainage systems that serve highways and highway-related properties, facilities and activities. The SWMP is the Caltrans policy document that describes how Caltrans conducts its stormwater management activities (i.e., procedures and practices), provides descriptions of each of the major management program elements, discusses the processes used to evaluate and select appropriate BMPs, and presents key implementation responsibilities and schedules. The Maintenance Stormwater Management Program is a component of the Statewide SWMP, and is described in Section 8 of the SWMP. The Permit requires Caltrans to implement a year-round program statewide to effectively control stormwater and non-stormwater discharges. To meet permit stormwater discharge requirements, Caltrans has implemented four general categories of BMPs including Maintenance BMPs. Approved

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Maintenance BMPs are described in the Caltrans Stormwater Quality Handbook Maintenance Staff Guide.

F.03 Caltrans Stormwater Quality Handbook – Maintenance Staff Guide

The Caltrans Stormwater Quality Handbook – Maintenance Staff Guide (Staff Guide) is the key document in the Maintenance effort to protect water resources. The Staff Guide provides detailed description, implementation and maintenance of BMPs used in maintenance activities.

The key components of the Maintenance Staff Guide are:

- (A) Objectives of Maintenance Stormwater Management Program
- (B) Pollutants of Concern for Highway Maintenance Activities and Facilities
- (C) Incorporation of Stormwater Controls into Maintenance Programs and Activities
- (D) Program Effectiveness and Evaluation
- (E) Detailed Maintenance Best Management Practices (BMPs) for use in field maintenance activities, both at maintenance stations, and for each type of maintenance operation

F.04 Targeted Objectives of the Maintenance Stormwater Program

Maintenance managers must be aware of specific objectives of the program that are targeted and reported periodically as part of program effectiveness and evaluation. Information for these activities shall be entered accurately in IMMS to reach an accurate assessment of maintenance performance in complying with the Permit and the SWMP.

- (A) Stormwater treatment BMPs are to be inspected, cleaned, maintained or repaired at least once a year. Inspect prior to and during the rainy season for functionality. For those treatment BMPs with standing water that could not be drained after 96 hours, notify the district maintenance stormwater coordinator and local vector control agency.
- (B) All drain inlets and catch basins are to be inspected at least once a year in urbanized areas, and cleaned of waste or debris if they reach 50 percent capacity or less as necessary statewide. Maps of urbanized areas (UA) can be accessed in the latest decennial census by the Bureau of Census in the website <u>https://www.census.gov/geo/maps-data/maps/2010ua.html</u>.
- (C) Areas of Special Biological Significance (ASBS) are ocean or estuarine areas designated by the State Water Board that require special protection of species or biological communities to the extent where alteration of natural water quality is undesirable. The discharge of waste, or non-exempt non-stormwater to ASBS are prohibited. ASBS stormwater outfall drains equal to or greater than 18 inches in

diameter or width shall be inspected once prior to the beginning of the rainy season and once during the rainy season, and maintained to remove trash and debris. ASBS priority sites can be found in Attachment III of the NPDES Permit.

- (D) Training attendance of maintenance personnel on stormwater BMP implementation is required for new employees and as a refresher course every four years. Maintenance should aim training 25 percent of personnel annually.
- (E) Facility Pollution Prevention Plan shall be revised or updated whenever a Permit violation was found or if there are changes to the facility that could threaten water quality but no later than the three years from the last update.
- (F) All highway slopes statewide shall be inspected within five years to check for erosion. Maintenance personnel should inspect at least 20 percent of highway shoulder in their districts to meet this objective. Identified unstable or eroding surface, and slopes prone to erosion shall be prioritized for repair and stabilization.
- (G) Total Maximum Daily Loads (TMDL) are waste allocations for water bodies impaired with specific pollutants of concern. In TMDL watershed areas where the department is an identified waste contributor, Maintenance shall implement BMPs to reduce the sediment, debris or trash load coming from the department's right of way such as soil stabilization and sediment control, sweeping, and drainage cleaning.
- (H) Maintenance facilities including waste or material storage sites, CHP or Border Protection stations, equipment shops and rest areas are evaluated by independent quality assurance (IQA) auditors for Permit compliance. While maintenance yards and storages are inspected monthly by supervisors, the IQA conducts unannounced reviews of at least 20 percent of statewide facilities annually.
- (I) Use of chemical vegetation control are reported including the volume, type and location of pesticides applied to control the spread or growth of unwanted vegetation. Refer to Chapter C2 of Maintenance Manual Volume I for more information on use and recordkeeping of pesticides.
- (J) Solid waste collected in maintenance facilities prior to disposal shall be accounted and reported by volume annually to the maintenance stormwater coordinator as part of waste management inventory. Volume of highway trash and litter collected from drainage systems are reported annually. Refer to Chapter D1 for more information on litter, debris and sediment removal.
- (K) Incidents of emergency, field or administrative non-compliance such as highway spills, discharge of pollutants, or failure to maintain FPPPs require filing an Incident Report Form to the district NPDES stormwater coordinator who reports the incident through the SWRCB tracking system. The form with additional information can be found in Attachment I of the NPDES Permit.