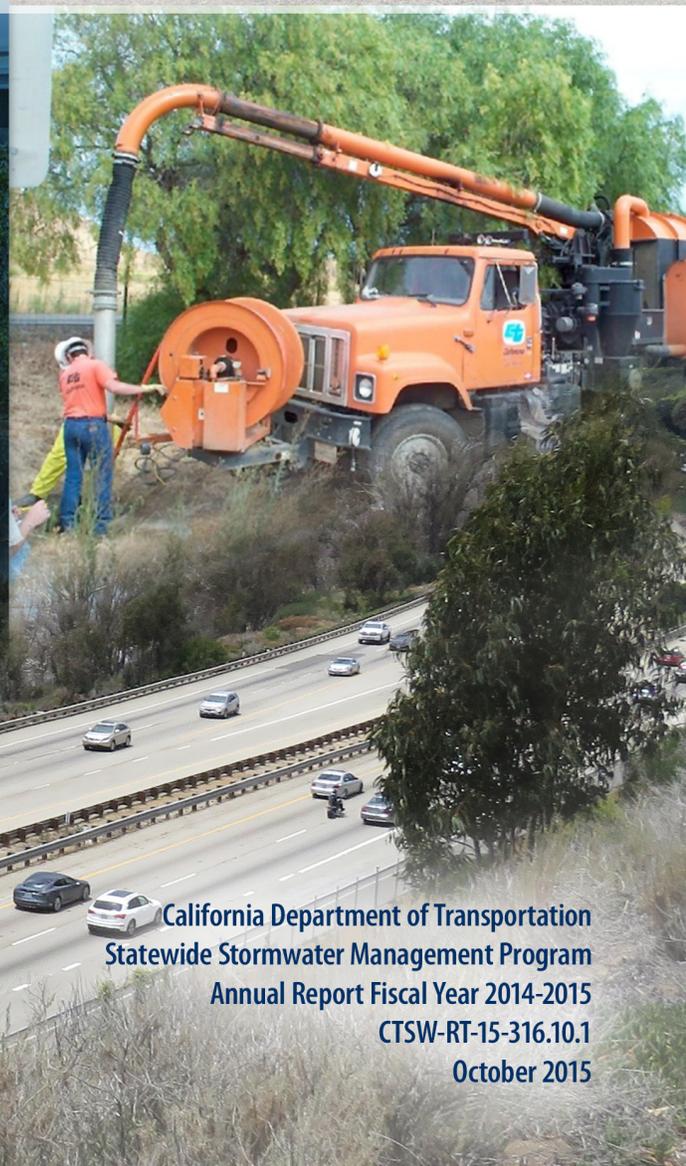




Caltrans Stormwater Management Program Annual Report



California Department of Transportation
Statewide Stormwater Management Program
Annual Report Fiscal Year 2014-2015
CTSWSW-RT-15-316.10.1
October 2015

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California Department of Transportation Stormwater Management Program Annual Report

Fiscal Year

2014-2015

CTSW-RT-15-316.10.1



California Department of Transportation
Division of Environmental Analysis
Stormwater Management Program
1120 N Street, Sacramento, California 95814
<http://www.dot.ca.gov/hq/env/stormwater>

October 1, 2015

For individuals with sensory disabilities, this document is available in alternate formats upon request.

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California Department of Transportation

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Sacramento, California 95814

Certification

**STORMWATER MANAGEMENT PROGRAM
ANNUAL REPORT**

October 1, 2015

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure 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. [40 CFR § 122.22(d)]



G. Scott McGowen, Chief Environmental Engineer
Division of Environmental Analysis
California Department of Transportation

September 30, 2015

Date

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Table of Contents

Attachments.....	iv
Acronyms	v
Executive Summary.....	vi
Executive Summary.....	vi
1 Overview	1
Background and Purpose	1
Status of Permit and SWMP Requirements	1
2 Management and Organization	7
Program Management.....	7
Revised SWMP Status	7
Municipal Coordination Plan Activities	7
Fiscal Analysis	8
Coordination with Statewide and National Associations.....	8
Legal Authority.....	9
Incident Reporting – Non-Compliance and Potential/Threatened Non-Compliance.....	9
3 Monitoring and Discharge Characterization Program	11
Tier 1 Site Monitoring	12
Tier 2 Site Monitoring	13
Other Water Quality Monitoring.....	13
4 BMP Development and Implementation.....	17
BMP Development and Implementation.....	17
Treatment BMPs Tracking System and Maintenance.....	19
5 Project Planning and Design.....	21
Re-use of Aerially Deposited Lead Contaminated Soils.....	21
Design Consultation in the Lahontan Region	21
Stream Crossing Design Guidelines to Maintain Natural Stream Processes	21
Design Best Management Practices	23
Treatment BMPs Planned for Projects.....	23
Design Self-Audit Program.....	24
6 Construction	25
Implementation of Construction General Permit	25
Construction Enforcement Actions Response.....	25
Construction Self-Audit Compliance Monitoring.....	25
Construction Best Management Practices.....	26
7 Compliance with the Industrial General Permit.....	27
8 Maintenance Program Activities and Facilities Operations	29
Illegal Connections/Illicit Discharges	29
IC/ID and Illegal Dumping Response Plan.....	29
Vegetation Control.....	29
Chemical Use on Vegetated Treatment BMPs	29
Maintenance Self-Audit Compliance Monitoring.....	29
Facility Pollution Prevention Plans.....	30
Waste Management Plan.....	30
Landslide Management Plan.....	30

Erosion Control and Stabilization Activities in Areas Prone to Erosion	31
Trash and Litter Removal Activities.....	31
Drain Inlets/Culverts Inspected and Cleaned.....	32
9 Non-Departmental Activities	33
Encroachment Permits Implementation Activities.....	33
Airspace Leases	33
10 Non-Stormwater Activities/Discharges	35
Exempt and Conditionally Exempt Non-Stormwater Discharges.....	35
11 Training	37
Training.....	37
12 Public Education and Outreach.....	41
Public Education Activities.....	41
13 Region-Specific Activities	43
TMDL Requirements	43
North Coast Region.....	43
San Francisco Bay Region	43
Lahontan Region.....	46
ASBS Compliance Plan	47
14 Overall Program Effectiveness Evaluation Approach.....	49
15 Measurable Objectives	51
16 Reporting	53
Annual Report.....	53
District Work Plans.....	53
Total Maximum Daily Load Status Review Report.....	53
Non-Approved BMP Implementation.....	53
Monitoring Results Report.....	54

Figures

Figure 1: Treatment BMPs Planned Summary by Device Type	24
---------------------------------------------------------------	----

Tables

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)	1
Table 2: Fiscal Year 2014-2015 Storm Event Summary.....	12
Table 3: Permit-Required Monitoring (Tier 1).....	12
Table 4: 2014-2015 Fiscal Year Monitoring Efforts and Associated Reports	13
Table 5: Summary of 2014-2015 Fiscal Year Treatment BMP Inspection and Maintenance.....	17
Table 6: Airspace Leases Modified to Include SWMP Requirements 2014-2015.....	33
Table 7: District 4 Pump Station Dissolved Oxygen Monitoring (2014-2015) Results Summary	44
Table 8: District 4 Pump Station Dissolved Oxygen Future 2015-2016 Monitoring Summary	45
Table 9: Fiscal Year 2014-2015 TMDL Monitoring Summary	54

Appendices (on CD)

- Appendix A: Management and Organization
- Appendix B: BMP Development and Implementation
- Appendix C: Project Planning and Design
- Appendix D: Construction
- Appendix E: Maintenance Program Activities and Facilities Operations
- Appendix F: Chemical Use
- Appendix G: Historical Maintenance Facilities Inspections
- Appendix H: Landslide Management Plan – Slope Inspections
- Appendix I: Drain Inlet Inspection and Cleaning
- Appendix J: Facility Pollution Prevention Plans
- Appendix K: Public Education Program
- Appendix L: Training
- Appendix M: Reporting
- Appendix N: Program Effectiveness Evaluation
- Appendix O: Seasonal Runoff Volumes at ASBS Sites 18 inch or greater

Attachments (on CD)

- *Annual Report to the Legislature for Calendar Year 2013, Coastal Anadromous Fish Passage Assessment and Remediation Progress Report*, October 2014, which describes the status of Caltrans' progress on locating, assessing, and remediating project-related barriers to fish passage. This report was prepared pursuant to California Streets and Highway Code Section 156, Chapter 589, Statutes of 2005 (Senate Bill 857, Kuehl).
- *Year-End Performance Report, A Summary of Construction Compliance Reviews – July 1, 2014 – June 30, 2015*, September 2015 (CTSW-RT-15-321.04.2), which summarizes the results of construction compliance inspections.
- *Year-End Performance Report FY 2014-2015, A Summary of Maintenance Activity Storm Water Compliance Reviews*, September 2015 (CTSW-RT-15-321.04.4), which summarizes the stormwater compliance reviews of maintenance activities.
- *Year-End Performance Report FY 2014-2015, A Summary of Maintenance Facility Storm Water Compliance Reviews*, September 2015 (CTSW-RT-15-321.04.3), which summarizes the stormwater compliance reviews of maintenance facilities.
- *Total Maximum Daily Load Status Review Report*, October 1, 2015 (CTSW-RT-15-316.01.2), which describes the activities performed to implement Total Maximum Daily Loads on a statewide basis, including the Stream Crossing Survey Workplan for Napa River and Sonoma Creek.
- *Treatment BMP Technology Report*, October 2015 (CTSW-RT-15-999), which discusses the approved and unapproved post-construction technologies Caltrans has evaluated.
- *Stormwater Monitoring and BMP Development Status Report: Fiscal Year 2014-2015 Update*, September 2015 (CTSW-RT-15-312.01.01), which provides an update on the status of stormwater treatment technology studies, source control studies (including erosion control studies), and stormwater quality characterization for the 2014-2015 fiscal year.
- Caltrans certification of legal authority, signed by Jerry M. Montoya, Acting Chief Counsel, September 22, 2015.

For immediate access to these reports and data, see the enclosed compact disc (CD). For a complete list of these and all other Caltrans stormwater management and research reports, please see the Caltrans Headquarters Stormwater Division of Environmental Analysis (DEA) [website](#).

Acronyms

AASHTO	American Association of State Highway and Transportation Officials
ASBS	Areas of Special Biological Significance
BMP	best management practice
CASQA	California Stormwater Quality Association
CCEP	Construction Compliance Evaluation Plan
CCC	California Conservation Corps
CD	Compact Disc
CDFW	California Department of Fish and Wildlife
CGP	Construction General Permit (Statewide)
CHP	California Highway Patrol
DCSWC	District Construction Stormwater Coordinator
DEA	Caltrans Headquarters Stormwater Division of Environmental Analysis
DTSC	Department of Toxic Substances Control
DWP	District Work Plan
DWQ	Division of Water Quality
EPA	U.S. Environmental Protection Agency
FPPP	Facility Pollution Prevention Plan
IC/ID	illicit connection/illegal discharge
IMMS	Integrated Maintenance Management System
IQA	Independent Quality Assurance
LAP	Landscape Architecture Program
ME3C	Maintenance Environmental Conserve California Circular
MS4	municipal separate storm sewer system
NEAT	Natural Environment as Treatment
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NSSP	Non-Standard Special Provision
ORW	ocean receiving water
OSWMD	Office of Stormwater Management Design
PCB	Polychlorinated Biphenyl
PPDG	Project Planning and Design Guide
PRD	Permit Registration Documents
RE	Resident Engineer
RMG	regional monitoring group
RSP	rock slope protection
RWQCB	Regional Water Quality Control Board
SMARTS	Storm Water Multiple Application and Report Tracking System
SWDR	Stormwater Data Report
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	total maximum daily load
USFS	U.S. Forest Service
WPCP	Water Pollution Control Program

Executive Summary

The California Department of Transportation (Caltrans) *Stormwater Management Program Annual Report* (CTSW-RT-15-316.10.1) (Annual Report) describes the stormwater management activities Caltrans performed from July 1, 2014 to June 30, 2015. It complies with the reporting requirements in Caltrans' Statewide National Pollutant Discharge Elimination System (NPDES) Stormwater Permit (Order No. 2012-0011-DWQ) (Caltrans NPDES Permit) and *Draft Statewide Stormwater Management Plan* (submitted as a draft to the State Water Resources Control Board in July 2014) (Draft SWMP)¹. During the reporting period, the Draft SWMP was revised to better address the Caltrans NPDES Permit requirements.

Caltrans strives to maintain and improve water quality through implementation of its Stormwater Management Program, while fulfilling its mission to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Water quality protection is a key component of Caltrans' day-to-day business practices throughout the project delivery process, and during maintenance and operations activities.

This report describes specific measures that Caltrans took during the year to maintain and improve runoff water quality, and assesses the effectiveness of the water pollution control activities. Among the water quality control measures used were best management practices (BMPs), including treatment controls, training courses and guidance, the [Adopt-A-Highway](#) public education campaign, and public outreach efforts in all twelve Caltrans Districts. In addition, Caltrans continued its research into pollution control technologies that are compatible with highway infrastructure and that effectively remove roadway pollutants.

Caltrans completed an overall effectiveness evaluation of the stormwater management program following the procedures developed by the California Stormwater Quality Association® (CASQA). This methodology uses six categories of Outcome Levels representing a general progression of water quality protections. The program substantially met its annual goals as evaluated by the assessment.

¹ All references made to the SWMP in this Annual Report pertain to the Draft 2014 edition of the SWMP.

Background and Purpose

This document, the *Stormwater Management Program Annual Report* (CTSW-RT-15-316.10.1) (Annual Report) summarizes stormwater management activities conducted by the California Department of Transportation (Caltrans) during fiscal year July 1, 2014 to June 30, 2015 (reporting period). These activities protected stormwater quality while maintaining motorist and worker safety and meeting Caltrans’ mission of improving mobility across California. Caltrans uses a variety of strategies to control the discharge of pollutants from roadways and other transportation facilities, and construction projects, while promoting consistency statewide when possible, due to diverse geographic, climatic, population, and regulatory conditions. The Annual Report describes specific activities completed by Caltrans during the reporting period to implement those strategies.

The Annual Report complies with the reporting requirements described in Caltrans’ Statewide National Pollutant Discharge Elimination System (NPDES) Stormwater Permit (Order No. 2012-0011-DWQ) (Caltrans NPDES Permit) and Caltrans’ *Draft Statewide Stormwater Management Plan* (submitted to the State Water Board on July 1, 2014) (Draft SWMP). The Caltrans NPDES Permit became effective on July 1, 2013.

This Annual Report is organized consistent with the Draft SWMP sections. The accomplishments achieved during the reporting period are discussed in each section, and the supporting data and additional detailed information is compiled in the appendices and attachments on the associated compact disc (CD).

Status of Permit and SWMP Requirements

Table 1 lists Caltrans NPDES Permit reporting requirements for the 2014-2015 reporting period.

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.1.a., Pg. 23, and Att. IX	Caltrans shall update, maintain and implement an effective SWMP that describes how Caltrans will meet requirements of this Order as outlined in E.1.b below. ... The SWMP shall be reviewed annually and modified as necessary to maintain an effective program in accordance with the procedures of this Order.	Section 2
E.2.b.1)b), Pg. 25	Caltrans shall include a MUNICIPAL COORDINATION PLAN in the SWMP. ... Caltrans shall report on the status and progress of interagency coordination activities in each Annual Report.	Section 2 and Appendix A (on the CD)
E.2.b.2)b), Pg. 25, and Att. IX	Caltrans shall submit annually, as part of the Annual Report, a CERTIFICATION OF THE ADEQUACY OF LEGAL AUTHORITY .	Section 2 and Attachment (on the CD)

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.2.b.3)b), Pg. 25-26, and Att. IX	<p>Caltrans shall submit a FISCAL ANALYSIS of the storm water program annually. At a minimum, the fiscal analysis shall show:</p> <ul style="list-style-type: none"> i) Location of funds to the Districts for compliance with this Order; ii) Funding for each program element. iii) Comparison of actual past year expenditures with the current year's proposed expenditures and next year's proposed expenditures; iv) How funding has met the goals specified in the SWMP and District work plans; v) Description of any cost sharing agreements with other responsible parties in implementing stormwater management program. 	Section 2 and Appendix A (on the CD)
E.2.b.6), Pg. 26-27	<p>Incident Reporting –Non-Compliance and Potential/Threatened Non-Compliance: Caltrans shall report all known incidents of non-compliance with this Order.... Caltrans shall include in the Annual Report a summary of all incidents by type and District, and report on the status of each.</p>	Section 2 and Appendix A (on the CD)
E.2.c.2)(a)i)(1)(b), Pg. 28	<p>For [ASBS] storm water outfalls in existence as of December 31, 2007, 18 inches (457mm) or greater in diameter/width, including multiple outfall pipes in combination having a width of 18 inches, runoff flows must be measured or calculated, using a method acceptable to and approved by the State Water Board. Report measurements annually for each precipitation season to the State and Regional Water Boards.</p>	Section 3 and Attachment (on the CD)
E.2.c.5), Pg. 35, and Att. IX	<p>Caltrans shall submit, separate from the Annual Report, a MONITORING RESULTS REPORT (MRR) by October 1 of each year.</p>	Section 3
E.2.c.6)b), Pg. 35 E.2.f.6), Pg. 46	<p>E.2.c.6)b) Caltrans shall summarize, by District, all non-compliance incidents, including construction, in the Annual Report.</p> <p>E.2.f.6) Caltrans shall provide in the Annual Report a summary of all construction project non-compliance.</p>	Section 2 and Appendix A (on the CD)
E.2.d.4), Pg. 43	<p>Caltrans shall submit to the State Water Board by October 1 of each year the same report required under Article 3.5 of the Streets and Highways Code requiring Caltrans to report on the status of its efforts in locating, assessing, and remediating barriers to fish passage.</p>	Section 5 and Attachment (on the CD)
E.2.e., Pg. 43, and Att. IX	<p>Caltrans shall submit updates to the STORM WATER TREATMENT BMP TECHNOLOGY REPORT and the STORM WATER MONITORING AND BMP DEVELOPMENT STATUS REPORT in the Annual Report.</p>	Section 4 and Attachment (on the CD)
E.2.e.2)d) Pg. 44-45	<p>Caltrans shall develop and use a watershed-based database to track and inventory treatment BMPs and treatment BMP maintenance within its jurisdiction. A summary of the tracking system data shall be included in the Annual Report along with a report on maintenance activities for post construction BMPs.</p>	Section 4 and Appendix B (on the CD)

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.2.h.2), Pg. 46-47, and Att. IX	Caltrans shall identify in each Annual Report the status of the FPPP (Facility Pollution Prevention Plan) for each Maintenance Facility by District and Region, including the date of the last update or revision and the nature of any revisions.	Section 8 , Appendices E and J (on the CD)
E.2.h.3)a)(iii), Pg. 47	Identify road segments with slopes that are prone to erosion and sediment discharge and stabilize these slopes to control the discharge of pollutants to the MEP. An inventory of vulnerable road segments shall be maintained in the District Work Plans. Stabilization activities shall be reported in the Annual Report. This section does not apply to landslides and other forms of mass wasting which are covered under section E.2.h.3)d).	Section 8 and Appendix H (on the CD)
E.2.h.3)b)i)(1)-(2), Pg. 48	Apply herbicides and pesticides in compliance with federal, state and local use regulations and product label directions. (1) Violations of regulations shall be reported to the County Agricultural Commissioners within 10 business days. (2) The Annual Report shall include a summary of violations and follow-up actions to correct them.	Section 8 and Appendix E (on the CD)
E.2.h.3)b)(vii) (1) through (7), Pg. 48-49	Include the following items in the Annual Report [regarding Vegetation Control]: (1) A summary of chemical use; (2) Assessment on long-term trends of herbicide usage; (3) Comparison of Statewide herbicide use with Caltrans' reduction goals; (4) Analysis of effectiveness of Vegetation Control; (5) Justification of any increases in pesticide usage; (6) Number and percent of employee trained on pesticide applications; (7) Training materials, if requested by the State Water Board.	Section 8 , Appendices E and F (on the CD)
E.2.h.3)d), Pg. 50, and Att. IX (1 st Annual Report only)	Caltrans shall submit the LANDSLIDE MANAGEMENT PLAN with the Year 1 Annual Report and implement the LANDSLIDE MANAGEMENT PLAN for the remainder of the Permit term.	Section 8 , Appendices E and H (on the CD)
E.2.h.4)c), Pg. 50-51	Reporting Requirements for Trash and Litter: ...Results shall be submitted as part of the Annual Report in a summary format by District. Prior year's data shall be included to facilitate an analysis of trends.	Section 8 and Appendix E (on the CD)
E.2.k.3), Pg. 53	Caltrans shall provide a review and assessment of all training activities in the Annual Report.	Sections 11 , Section 14 , Appendices L and N (on the CD)
E.2.l.2), Pg. 53, and Att. IX	A PUBLIC EDUCATION PROGRAM PROGRESS REPORT shall be submitted as part of the Annual Report.	Section 12 and Appendix K (on the CD)
E.2.m.2), Pg. 53, and Att. IX	Field Activities SELF-AUDIT : ...The results of the field compliance evaluations for each fiscal year will be provided in the Annual Report.	Section 5 , Section 6 , Section 8 , Section 14 , Attachments and Appendices C, D, E, and N (on the CD)

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.2.m.3), Pg. 54, and Att. IX	OVERALL PROGRAM EFFECTIVENESS EVALUATION: Each year, Caltrans shall submit an OVERALL PROGRAM EFFECTIVENESS EVALUATION together with the Annual Report.	Section 14 and Appendix N (on the CD)
E.2.n., Pg. 54	Measurable Objectives: ...In the Annual Report, Caltrans shall report on its progress in meeting the measurable objectives.	Section 15
E.3.a., Pg. 54-55	<p>Caltrans shall submit 13 copies of an ANNUAL REPORT to the State Water Board Executive Director by October 1 of each year. An electronic copy shall also be uploaded into SMARTS in the portable document format (PDF). The reporting period for the Annual Report shall be July 1 through June 30. The Annual Report shall contain all information and submittals required by this Order including, but not limited to:</p> <ol style="list-style-type: none"> 1) A District-by-District description of storm water pollution control activities conducted during the reporting period; 2) A progress report on meeting the SWMP's measurable objectives; 3) An Overall Program Effectiveness Evaluation as described in section E.2.m.3); 4) Proposed revisions to the SWMP, including revisions to existing BMPs, along with corresponding justifications; 5) A report on post-construction BMP maintenance activities; 6) A list of non-approved BMPs that were implemented in each District during the reporting period including the type of BMP, reason for use, physical location, and description of any monitoring; 7) An evaluation of project planning and design activities conducted during the year; 8) A summary of non-compliance with this Order and the SWMP as specified in Section E.2.c.6)b). The summary shall include an assessment of the effectiveness of any Department enforcement and penalties, and as appropriate, proposed solutions to improve compliance; 9) An evaluation of the Monitoring Results Report, including a summary of the monitoring results; 10) Proposed revisions to Caltrans' Vegetation Control Program; 11) Proposals for monitoring and control of non-storm water discharges that are found to be sources of pollutants as described in Section B. of this Order; 12) District Workplans (see below); and 13) Measures implemented to meet region-specific requirements. 	Section 16 and all appendices (on the CD)

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.3.b., Pg. 55-56, and Att. IX	<p>DISTRICT WORKPLANS Caltrans shall submit DISTRICT WORKPLANS (workplans) for each District by October 1 of each year, as part of the Annual Report.... Workplans shall conform with the requirements of applicable Regional Water Board Basin Plans and shall include, at a minimum:</p> <ol style="list-style-type: none"> 1) A description of all activities and projects, including maintenance projects, to be undertaken by the Districts. For all projects with soil disturbing activities, this shall include a description of the construction and post construction controls to be implemented; 2) The area of new impervious surface and the percentage of new impervious surface to existing impervious surface for each project; 3) The area of disturbed soil associated with each project or activity; 4) A description of other permits needed from the Regional Water Boards for each project or activity; 5) Potential and actual impacts of the discharge(s) from each project or activity; 6) The proposed BMPs to be implemented in coordination with other MS4 permittees to comply with WLAs and Las assigned to Caltrans for specific pollutants in specific watersheds or sub watersheds; 7) The elements of the statewide monitoring program to be implemented in the District; 8) Identification of high-risk areas (such as locations where spills or other releases may discharge directly to municipal or domestic water supply reservoirs or ground water percolation facilities); 9) Spill containment, spill prevention and spill response and control measures for high-risk areas; and 10) Proposed measures to be taken to meet Region-specific requirements included in Attachment V. 11) An inventory of vulnerable road segments having slopes that are prone to erosion and sediment discharge. 	<p>Section 16 and District Work Plans (on the CD)</p>

Table 1: Caltrans Annual Reporting Requirements in 2012 Permit (from Order 2012-0011-DWQ)

2012 Permit Section(s)	Requirement(s)	Location in Annual Report
E.4.c., Pg. 57-58, and Att. IX	<p>Status Review Report</p> <p>Caltrans shall prepare a TMDL STATUS REVIEW REPORT to be submitted with each Annual Report. The TMDL Status Review Report shall include the following information for all TMDLs listed in Attachment IV.</p> <ol style="list-style-type: none"> 1) An analysis of the effectiveness of existing BMPs and activities in meeting existing TMDLs; 2) A summary update of monitoring activities for each TMDL and any monitoring needed to demonstrate compliance with an approved TMDL; 3) A summary of measures implemented to comply with existing TMDLs; 4) A summary of measures and a time schedule to meet existing TMDLs; 5) An update of Caltrans Statewide TMDLs table; 6) A summary of TMDLs adopted during the past year where Caltrans is assigned a WLA or Caltrans is identified as a responsible party in the implementation plan 	<p>Section 16 and Attachment (on the CD)</p>

2 Management and Organization

Program Management

Caltrans Internal meetings were held with Management to discuss permit requirements, new commitments, resources, and collaborated with legal on the development of the SWMP and responding to SWRCB's comments and feedback on deliverables.

Caltrans continued to meet with SWRCB staff to discuss Caltrans NPDES Permit Attachment IV, Total Maximum Daily Load Requirements, including

- Caltrans' 84 TMDLs;
- reach prioritization;
- compliance by pollutant categories; and
- reporting requirements for the TMDL status review report and compliance units achieved.

Caltrans Management and each of the Headquarters and District Functional Units held briefings regarding permit requirements and TMDL compliance. A statewide meeting was held to discuss upcoming changes on procedures required to comply with the NPDES permit.

Caltrans participated in discussions regarding upcoming requirements for the

- Statewide Trash Amendments,
- Statewide Stormwater Strategic Plan, and
- regional watershed programs.

Caltrans statewide meeting was held and collaborated with SWRCB and Caltrans Management discuss the mission and objectives of the Stormwater Management Program. Expectations on Permit implementation on all program elements including Project Planning, Design, Construction, Maintenance, Region-Specific, and new stormwater regulations (TMDL compliance, trash reduction, reporting, and program effectiveness) were discussed with key members of the Caltrans Stormwater Management Program personnel.

Revised SWMP Status

The SWMP describes how Caltrans addresses stormwater pollution control related to Caltrans activities, including planning, design, construction, maintenance, and operation of roadways and facilities. It explains how Caltrans will comply with the requirements of the Caltrans NPDES Permit and the State Water Resources Control Board's (SWRCB) *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ) (2009) (Statewide Construction General Permit or Statewide CGP) as amended by Order No. 2010-0014-DWQ. Caltrans submitted the Draft SWMP to the State Water Board in July 2014. During the fiscal year, the State Water Board reviewed the Draft SWMP, anticipated for public release and review in the next reporting period.

Municipal Coordination Plan Activities

Caltrans' Municipal Coordination Plan was under development during the reporting period. In the interim, the Districts participated in municipal coordination activities by attending meetings, taking part in special studies, and collaborating with local agencies. District staff attended meetings statewide with municipal stormwater permittees to coordinate the implementation of TMDLs, public education and outreach, regional planning, and other related activities. Appendix A has detailed information on the municipal coordination activities performed during the reporting period. The cooperative agreement activities that Caltrans performed during the reporting period are summarized in Appendix M.

Fiscal Analysis

Caltrans' Stormwater Management Program was appropriated \$101,963,000 to comply with the Caltrans NPDES Permit and related activities in fiscal year 2014-2015. Total expenditures were \$100,665,387.23, with \$36,241,300.27 in personal services, and \$64,424,086.96 in operating expenses. A total of 359.63 Personnel Years were expended. This fiscal year the infrequent storm events continued to depress monitoring costs, while the new permit provisions increased expenses. Consequently, the Caltrans' Stormwater Management Program expended and encumbered a little more than 99% of its total fiscal year 2014-2015 appropriation.

In fiscal year 2014-2015, the Caltrans Stormwater Management Program continued to assess Caltrans NPDES Permit requirements and their programmatic and fiscal impacts. Consistent with last fiscal year, more than one hundred sites (excluding cooperative monitoring sites) were monitored for stormwater quality. The Caltrans Stormwater Management Program anticipates that stormwater quality monitoring will continue to increase in future years, as new TMDLs are promulgated, additional treatment BMPs are installed, and retrofits of BMPS are completed. Additionally, during this fiscal year, the SWRCB amended the Caltrans NPDES Permit to include 84 TMDLs that are comprised of 382 reaches. Subsequently, Caltrans Stormwater Management Program submitted a list that prioritized these TMDLs and their reaches. The SWRCB reviewed this list and it is currently pending approval. In the interim, Caltrans began implementing BMPs in some of the TMDL Priority reaches.

Additionally, the Stormwater Management Program attempted to establish the "Cooperative Implementation Grant Program," a collaborative program with the SWRCB. The Department of Finance did not approve the SWRCB's spring 2015 Cooperative Implementation Grant Program proposal for inclusion in the fiscal year 2015-2016 state budget. Therefore, the Caltrans Stormwater Management Program began to establish the Cooperative Implementation Agreement Program with two cities that had developed projects within the TMDLs. If these pilots are successful, the Stormwater Management Program anticipates entering into additional agreements to earn compliance units. In summary, Caltrans' Stormwater Management Program is likely to grow as California returns to a more "typical" weather pattern, continues to implement new permit requirements, and strives to earn the newly required 1,650 compliance units annually.

Appendix A summarizes the statewide stormwater District and Division expenditures during fiscal year 2014-2015. Appendix M has a table that describes the cooperative agreements Caltrans has with other responsible parties, and the activities that were completed during the fiscal year.

Coordination with Statewide and National Associations

Caltrans actively participated as a member of the California Stormwater Quality Association® (CASQA) by serving on its Board of Directors, discussing NPDES-related initiatives, municipal separate storm sewer system (MS4) permits, policy, participated in workgroups at quarterly meetings, and co-sponsored the Water Quality NewsFlash as part of a public education and outreach effort.

Caltrans coordinated nationally with other transportation departments on stormwater implementation strategies via the American Association of State Highway and Transportation Officials (AASHTO). The Chief Environmental Engineer, Scott McGowen, chairs the AASHTO Stormwater Working Group, in which members discussed emerging issues, developed briefing papers, collaborated on lessons learned on MS4 Audits, and participated in the July 2014 National Stormwater Practitioners Meeting in Washington DC. Topics included:

- Current trends in stormwater management programs and regulations
- U.S. Environmental Protection Agency (EPA) Audit preparations, MS4 permits, and lessons learned during Departments of Transportation MS4 audits
- Construction contract administration for stormwater
- Asset/data management and tracking
- Research findings and tools
- Maintenance best practices and water quality
- TMDL implementation and the watershed approach

Caltrans also participated in a monthly Center for Environmental Excellence by AASHTO Stormwater Community of Practice, a nationwide discussion held with other transportation departments on relevant topics, such as water quality monitoring and watershed-based stormwater management.

Legal Authority

The Caltrans NPDES Permit requires Caltrans to review its legal authority and ensure it is adequate to comply with its provisions and with the Draft SWMP. There were no changes in Caltrans' legal authority regarding the protection of stormwater. Caltrans' legal authority certification is attached to the Annual Report on the CD.

Incident Reporting – Non-Compliance and Potential/Threatened Non-Compliance

Caltrans reported known emergency, field, administrative, and anticipated (threatened) non-compliance incidents via the Storm Water Multiple Application Report and Tracking System (SMARTS) (Caltrans NPDES Permit Section E.2.b.6 and Draft SWMP, Table 16-1). During the 2014-2015 fiscal year, Caltrans complied with this requirement as summarized in Appendix A.

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3 Monitoring and Discharge Characterization Program

Stormwater monitoring was conducted at 86 ASBS sites during the fiscal year to address Section E.2.c requirements. These 86 sites consisted of 77 core discharge locations, seven ocean receiving water (ORW) sites, and two ocean reference area sites. Furthermore, Caltrans participated in all three ASBS regional monitoring groups (RMGs): Northern California, Central Coast, and Southern California. Caltrans conducted the stormwater monitoring consistent with the quality assurance project plans for each RMG. The number of successfully captured storm events at the core discharge sites and ocean reference sites is presented in Table 3.

The severe drought continued during the 2014–15 season, impacting the number of events meeting the mobilization criteria for monitoring. Additionally, the runoff was not able to reach several ORW sites, which is required for a successfully captured storm event, due to the buildup of sand berms.

Caltrans also conducted stormwater monitoring at 18 TMDL sites. The TMDLs covered by this effort include:

- Chollas Creek Diazinon and Dissolved Metals TMDL
- Coachella Valley Stormwater Channel Bacteria TMDL
- Los Angeles River Metals TMDL
- Malibu Creek and Lagoon Sedimentation and Nutrients TMDL
- Rainbow Creek Nutrients TMDL
- Sacramento-San Joaquin River Delta Estuary Methyl Mercury TMDL
- San Diego Creek and Newport Bay Toxics Pollutants TMDL
- San Francisco Bay Mercury TMDL
- San Francisco Bay Polychlorinated Biphenyls (PCBs) TMDL
- San Francisco Bay Area Urban Creeks Diazinon and Pesticides TMDL

The number of successfully captured storm events at the 18 TMDL sites range from zero to four.

In addition to conducting stormwater monitoring at the Tier 1 sites, Caltrans also entered, and continues to enter, into TMDL cooperative agreements throughout the State. For the 2014–15 season, the cooperative agreements covered activities in 14 TMDL watersheds. Some of these cooperative agreements include provisions to perform monitoring activities related to adopted TMDLs. Monitoring under cooperative agreements occurred at 183 sites.

The Monitoring Results Report will be submitted separately as required by the Caltrans NPDES Permit. The report is due for submittal to the State Board on October 1, 2015. Table 2 has a summary of the ASBS monitoring that occurred during the reporting period.

Table 2: Fiscal Year 2014-2015 Storm Event Summary

ASBS	Number of Forecasted Events	Number of Non-mobilized Storm Events ^{1,3}	Number of False Start Storm Events ^{2,3}	Number of Successfully Captured Storm Events ^{2,3}
ASBS 5 (Redwood)	13	11	1	1
ASBS 8 (Saunders)	13	10	1	2
ASBS 9 (Fitzgerald)	14	11	1	2
ASBS 15 (Ano Nuevo)	14	11	1	2
ASBS 34 (Carmel Bay)	14	12	1	1
ASBS 24 (Laguna to Latigo)	10	7	3	0
ASBS 33 (Irvine Coast)	17	14	0	3

Due to the drought, not all six target storms were sampled. The only exceedance occurred at ASBS 33 for selenium, and a source identification study has been proposed to determine its source. Additional information on the Caltrans TMDL and Cooperative TMDL monitoring is located in the Monitoring Results Report, which was submitted separately from this report.

Tier 1 Site Monitoring

The Caltrans NPDES Permit states, in part, that a minimum of 100 Tier 1 and Tier 2 sites (if needed) be monitored each year. Tier 1 sites are defined as either Areas of Special Biological Significance (ASBS) or TMDL sites. Caltrans planned to perform water quality monitoring at 86 ASBS sites (including Core, Receiving water and Reference monitoring) during the 2014-2015 precipitation season. Eighteen additional sites in adopted TMDL watersheds were selected and monitored to meet the Caltrans NPDES Permit requirement for monitoring a minimum of 100 Tier 1 sites. The Tier 1 Monitoring Site Priority List for ASBS sites that Caltrans had submitted to the State Board was approved. Table 2 summarizes the Caltrans NPDES Permit-required monitoring performed during the reporting period. Results of this monitoring effort are included in the Monitoring Results Report, which is submitted as a separate document.

Table 3: Permit-Required Monitoring (Tier 1)

ASBS Core Monitoring Sites (77)
<ul style="list-style-type: none"> ● 17 Core Monitoring sites in District 1 ● 6 Core Monitoring sites in District 4 ● 2 Core Monitoring sites in District 5 ● 47 Core Monitoring sites in District 7 ● 5 Core Monitoring sites in District 12
ASBS Ocean Receiving Water and Reference Monitoring Sites (9)
<ul style="list-style-type: none"> ● 2 Ocean receiving water sites and 2 Ocean Reference monitoring sites are proposed in District 1 ● 2 Ocean receiving water sites in District 4 ● 1 Ocean receiving water site in District 5 ● 1 Ocean receiving water site in District 7 ● 1 Ocean receiving water site in District 12

Table 3: Permit-Required Monitoring (Tier 1)

TMDL Monitoring Sites (18)
<ul style="list-style-type: none"> ● 1 Monitoring site in District 3 ● 4 Monitoring sites in District 4 ● 3 Monitoring sites in District 7 ● 2 Monitoring sites in District 8 ● 1 Monitoring site in District 10 ● 4 Monitoring sites in District 11 ● 3 Monitoring sites in District 12

Outfall Flow Measurements during the Precipitation Season

Seasonal runoff volumes were estimated at the monitored ASBS outfall locations that are 18 inches or greater in size (see Table 2). The runoff volume estimates were calculated based on the drainage area, depth of measured rainfall at the nearby rain gage, and a runoff coefficient that is a function of percent imperviousness. This method of runoff estimation is described in the Central Region ASBS Monitoring Group workplan that was approved by the State Board. The drainage areas were estimated from maps and verified by direct field observations for selected sites. The runoff volume estimation method and seasonal runoff volumes are included in Appendix O.

Tier 2 Site Monitoring

Tier 2 sites are defined by the Caltrans NPDES Permit as monitoring locations that are outside of both ASBS and TMDL watersheds where characterization monitoring may be of interest. Tier 2 site monitoring is only required when the number of Tier 1 sites available for monitoring falls below 100. Caltrans’ Tier 2 site selection and prioritization list was submitted and approved by the State Board. Tier 2 sites were not monitored during the reporting period, since Caltrans met the 100 monitoring site threshold with Tier 1 sites.

Other Water Quality Monitoring

Other water quality monitoring efforts include independently funded projects, as well as collaborative efforts with other stakeholders, such as municipalities, the SWRCB and Regional Water Quality Control Boards (RWQCBs), and stormwater quality researchers.

Table 4 summarizes monitoring and applied studies completed or in progress and reports prepared during the reporting period. Cooperative monitoring efforts do not have standard document numbers, and only the report titles are available.

Table 4: 2014-2015 Fiscal Year Monitoring Efforts and Associated Reports

Document ID No.	Title/Description	Report Type
CTSW-RT-14.289.9.1	Final Monitoring Report, Delaware Sand Filter Stormwater Monitoring in a Cold Climate Region, Monitoring Seasons 2012-13 and 2013-14	Report
NA	ASBS Core Discharge, Ocean Receiving Water and Reference Area Monitoring Program	In progress
NA	Caltrans NPDES Permit Section E.2.c) TMDL Monitoring 2013-2014	In progress
CTSW-RT-14-293.01.22	Rainbow Creek Nutrient TMDL Implementation Monitoring 2013-2014 Wet Season Project Final Report	Report
CTSW-RT-14-312.01.01	Stormwater Monitoring and BMP Development Status Report: Fiscal Year 2013-14 Update	Report

Table 4: 2014-2015 Fiscal Year Monitoring Efforts and Associated Reports

Document ID No.	Title/Description	Report Type
CTSW-RT-14-289.8.1	Alternative Abrasives Assessment Report – Phase 3 Sampling and Analysis of Alternative Abrasives	Report
CTSW-RT-14-293.02.15	Chollas Creek Dissolved Metals TMDL Implementation Monitoring 2012-2014 Wet Season and Study Draft Report	Report
CTSW-RT-14-288.05.3	San Francisco-Oakland Bay Bridge Stormwater Bioretention Basins	Report
Cooperative Monitoring Effort	ASBS Regional Monitoring Program – Ocean Reference Areas Southern, Central and Northern California	Report
Cooperative Monitoring Effort	Examination of Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL – Month of May 2015 RE: Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacterial Total Maximum Daily Load Coordinated Monitoring RE: Del Rey Lagoon Coordinated Monitoring Plan	Monthly Monitoring Submittal
Cooperative Monitoring Effort	June 2015 Results - Malibu Creek TMDL Compliance Monitoring	Report
Cooperative Monitoring Effort	Examination of TMDL Stations at Marina Del Rey Harbor – Month of July 2014 RE: Marina Del Rey Harbor Mother’s Beach and Back Basins Bacterial Total Maximum Daily Load Coordinated Monitoring Plan	Monthly Monitoring Submittal
Cooperative Monitoring Effort	Examination of DHS SMBBB TMDL Stations of Santa Monica Bay Month of July 2014 to Month of May 2015	Report
Cooperative Monitoring Effort	San Francisco Bay Estuary Monitoring: The Pulse of the –Bay – The State of Bay Water Quality: 2015 and 2065 2013-2014 ANNUAL MONITORING A report of the Regional Monitoring Program for Water Quality in the San Francisco Bay	Report Report
Cooperative Monitoring Effort	Ventura River Estuary Trash TMDL: Ventura River Estuary Trash TMDL 2013-2014 TMRP Annual Report	Report
Cooperative Monitoring Effort	Ballona Creek Metals and Ballona Creek Estuary Toxic Pollutants TMDL	NA
Cooperative Monitoring Effort	Marina del Rey Harbor Toxic Pollutants TMDL Coordinated Monitoring Program Quarterly Monitoring Report No. 1, 2 and 3: July 2014 through March 2015	Quarterly Reports
Cooperative Monitoring Effort	Ventura River and Estuary Algae TMDL: 2015 annual monitoring report	Report
Cooperative Monitoring Effort	Los Peñasquitos Watershed Beaches and Creeks Bacteria TMDL	NA
Cooperative Monitoring Effort	San Diego River Watershed Bacteria TMDL Compliance Activities	NA
Cooperative Monitoring Effort	San Luis Rey River Watershed Bacteria TMDL Compliance Activities	NA
Cooperative Monitoring Effort	Lake Elsinore and Canyon Lake Nutrient TMDL Annual Water Quality Report Final Report	Report
Cooperative Monitoring Effort	Revolon Slough/Beardsley Wash Trash TMDL TMRP/MFAC 2013-2014 Annual Report	Report
Cooperative Monitoring Effort	Draft Chollas Creek Diazinon and Dissolved Metals TMDL 2014-15 Water Quality Compliance Monitoring Report	Draft Report
Cooperative Monitoring Effort	Calleguas Creek Watershed TMDL Monitoring Program Post Event Summary Event 44: Quarterly Sampling and Sediment Collection	Quarterly Report

Table 4: 2014-2015 Fiscal Year Monitoring Efforts and Associated Reports

Document ID No.	Title/Description	Report Type
Cooperative Monitoring Effort	Los Angeles River Metals TMDL Coordinated Monitoring Program Report 2014–15	Report
Notes: NA – Not Available		

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4 BMP Development and Implementation

BMP Development and Implementation

Caltrans continued to track new and/or emerging post-construction stormwater treatment technologies. During the reporting period, the Stormwater Treatment BMP Technology Report was updated by revising the fact sheet for the Austin Sand Filter with Alternate Media post-construction BMP. The updated *Treatment BMP Technology Report, October 2015, 2015 Edition* (CTSW-RT-15-999) is an attachment to this Annual Report (CD attachment).

The *Stormwater Monitoring and BMP Development Status Report: Fiscal Year 2014-15 Update* (CTSW-RT-15-312.01.01) is an attachment to this Annual Report (CD attachment). This report provides an update on the status of stormwater treatment technology studies, source control studies (including erosion control studies), and stormwater quality characterization for the 2014-2015 fiscal year.

Treatment BMPs that retain water for more than 96 hours are reported to the local vector control districts. An inventory of structural BMPs that retain water for more than 96 hours is maintained and updated every two years.

Table 5: Summary of 2014-2015 Fiscal Year Treatment BMP Inspection and Maintenance

District	Treatment BMP Type	Number of Treatment BMPs	Number of Treatment BMPs Inspected/Maintained
1	Traction Sand Traps	3	3
	District 1 Total	3	3
2	Biofiltration Strips	29	29
	Biofiltration Swales	35	35
	Detention Basins	14	14
	Infiltration Basins	14	14
	Infiltration Trench	1	1
	Media Filter	2	2
	Traction Sand Traps	131	131
District 2 Total		226	226
3	Biofiltration Strips	10	10
	Biofiltration Swales	29	29
	Detention Basins	130	130
	Infiltration Basin	79	79
	Infiltration Trench	13	13
	Oil/Water Separator	2	2
	Traction Sand Traps	1,012	1,012
District 3 Total		1,275	1,275
4	Biofiltration Strips	20	20
	Biofiltration Swales	20	20
	Detention Basins	68	68
	Infiltration Trench	4	4
	Wet Basin	4	4

Table 5: Summary of 2014-2015 Fiscal Year Treatment BMP Inspection and Maintenance

District	Treatment BMP Type	Number of Treatment BMPs	Number of Treatment BMPs Inspected/Maintained
District 4 Total		116	116
5	Biofiltration Strips	10	10
	Biofiltration Swales	13	13
	Detention Basins	3	3
District 5 Total		26	26
6	Biofiltration Swales	21	21
	Detention Basins	361	361
District 6 Total		382	382
7	Biofiltration Strips	13	13
	Biofiltration Swales	111	111
	Continuous Deflection Separation	5	5
	Detention Basins	8	8
	Drain Inlet Inserts	5	5
	Gross Solids Removal Device	258	258
	Infiltration Basin	4	4
	Infiltration Trench	1	1
	Media Filter	18	18
	Multi-Chambered Treatment Train	3	3
	Oil/Water Separator	1	1
	Storm Filter	1	1
District 7 Total		428	428
8	Biofiltration Strips	28	28
	Biofiltration Swales	39	39
	Continuous Deflection Separation	2	2
	Detention Basins	28	28
	Gross Solids Removal Device	1	1
	Infiltration Basin	16	16
	Media Filters	2	2
	Traction Sand Traps	34	34
District 8 Total		150	150
9	Infiltration Basin	3	3
	Traction Sand Traps	9	8
District 9 Total		12	11
10	Detention Basins	3	3
	Traction Sand Traps	1	1
District 10 Total		4	4

Table 5: Summary of 2014-2015 Fiscal Year Treatment BMP Inspection and Maintenance

District	Treatment BMP Type	Number of Treatment BMPs	Number of Treatment BMPs Inspected/Maintained
11	Biofiltration Strips	1	1
	Biofiltration Swales	96	96
	Continuous Deflection Separation	5	5
	Detention Basins	10	10
	Gross Solids Removal Device	1	1
	Infiltration Trench	1	1
	Media Filters	4	4
	Oil/Water Separator	6	6
	Wet Basin	1	1
District 11 Total		125	125
12	Biofiltration Strips	7	7
	Biofiltration Swales	31	31
	Detention Basins	39	39
	Drain Inlet Inserts	93	93
	Gross Solids Removal Device	4	4
	Media Filters	13	13
	Oil/Water Separator	1	1
District 12 Total		188	188

Treatment BMPs Tracking System and Maintenance

The Division of Construction staff now provides the coordinates of treatment BMPs to facilitate transfer to the Division of Maintenance using a designated handoff form. The Division of Maintenance uses its Integrated Maintenance Management System (IMMS) to track maintenance records of treatment BMPs as provided by the Districts. Treatment BMPs are maintained according to Caltrans maintenance guidance. Data from the Caltrans Treatment BMP Database and from Treatment BMP maintenance activities are located in Appendix B.

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5 Project Planning and Design

Re-use of Aerially Deposited Lead Contaminated Soils

The Department of Toxic Substances Control (DTSC) regulates activities involving the re-use of soils that contain aerially deposited lead (ADL), ensuring that lead-contaminated soils are not discharged to waters of the U.S. Soil containing hazardous waste levels of lead were reused in accordance with a variance issued by the DTSC (SWMP Section 4.3.4, Re-use of Lead Contaminated Soils). If suitable locations for reuse were unavailable, the excavated soil containing hazardous waste levels of lead was disposed of at Class I landfill facilities. Each Caltrans District notified DTSC and the appropriate Regional Board at each instance invoking the variance and kept records for each variance in a statewide database.

Design Consultation in the Lahontan Region

The Caltrans NPDES Permit requires that Caltrans participate in early project design consultation for all projects within the Lake Tahoe, Truckee River, East and West Forks Carson River, and Mammoth Creek Hydrologic Units prior to the Project Approval and Environmental Document, 60% design level, and 90% Plans, Specifications, and Estimates phases. No projects were designed in the East and West Forks Carson River or the Mammoth Creek Hydrologic Units. However, in the Truckee River and Lake Tahoe Hydrologic Units, District 3 participated in early design consultation with the Lahontan Regional Board. On a tri-annual basis, the District NPDES Unit provided the Lahontan Regional Board with a list of projects in the design and construction phases. If total soil disturbance information was available, the projects were identified as either Water Pollution Control Program (WPCP) or Storm Water Pollution Prevention Plan (SWPPP) type projects.

At the 60 percent design phase, Drainage Plan, Drainage Profile, Drainage Details and Water Quality (WQ) Treatment Strategy plan sheets were submitted to the Water Board for a two-week review and comment period. Focus meetings were scheduled with permitting agencies (Water Board and TRPA staff), the Caltrans Design Branch, the TRPA Coordinator and the NPDES Coordinator to discuss WQ treatment strategies. Input from the permitting agencies were noted and considered to further refine the WQ treatment strategies. The same process occurred at the 90 percent design milestone. Finally, during the District's Plans, Specification & Estimate (PS&E) circulation, a PS&E package was submitted to the Lahontan Regional Board to show that all WQ treatment strategies that had been agreed upon were incorporated into the contract plans, and obtain treatment strategy concurrence.

Stream Crossing Design Guidelines to Maintain Natural Stream Processes

Caltrans, in coordination with the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), the California Department of Fish and Wildlife (CDFW), and the United States Fish and Wildlife Service, continue to use the "Fish Passage Design for Road Crossings" (Caltrans, August 2009) guidance to ensure conformance with state and federal fish passage standards and regulations. Caltrans also relies upon the Highway Design Manual, Section 800, "Highway Drainage Design", with its goals of perpetuating natural drainage while considering environmentally sensitive issues, such as fish passage.

The Caltrans NPDES Permit Attachment IV, Section 2 requires Caltrans to submit a plan and schedule for conducting stream crossing surveys, and to submit an implementation plan and schedule for repair and/or replacement of high priority crossings/culverts for compliance with the Napa River and Sonoma Creek Sediment TMDLs. Caltrans has prepared the required plan and schedule for conducting stream crossing surveys and included it as an appendix to the TMDL Status Review Report (attached to this report on the CD).

During the fiscal year, Caltrans finalized its *Caltrans Hydromodification Requirements Guidance, Storm Water Best Management Practices, Rapid Assessment of Stream Crossings, and Higher Level Stream Stability Analysis* (CTSW-OT-14-314.05), in February 2015. It provides guidance on assessing pre-project channel stability and implementing mitigation measures that are appropriate to protect structures and minimize stream channel bank and bed erosion.

In July 2014, the Caltrans Fish Passage Design for Road Crossings document was reviewed and submitted. Since its last revision in 2009, the NMFS Guidelines for Salmonid Passage at Stream Crossings (2001) document has not been updated. This NMFS document continues to be included in the Caltrans document as Appendix C.

Caltrans revised the fish passage design document for improved consistency and with the latest version of the CDFW CA Salmonid Stream Habitat Restoration manual. The following revisions, updates, and additions were completed in October 2014:

- Chapter 5 Stream Simulation Design Option
 - Section 5.5.4 (Analysis for Bed Form and Bed Stability) was revised and updated to reflect CDFW/U.S. Forest Service (USFS) analysis methods.
 - Section 5.5.5 (Bed Material Sizing) was revised and updated to reflect CDFW/USFS analysis methods. A systematic procedure for determining bed material sizing and gradation is included as it relates to stream hydraulics, project reference reach, and stream simulation culverts and bridges.
- Appendix D Caltrans Fish Passage Design Forms
 - Form 6C (Stream Simulation Design Option) was revised to reflect CDFW/USFS bed stability/mobility analysis and bed material sizing for stream simulation culverts and bridges.
- Appendix F Hydraulics of Baffles
 - Section F.1 (Baffled Culvert Research Overview) was modified to correct the dimensionless discharge equation for box culverts and is now consistent with the CDFW manual and the Humboldt State University baffled culvert research report.
- Appendix L Design Example- Stream Simulation Example
 - The design example was revised and updated to reflect the CDFW/USFS bed stability/mobility analysis method, which was used to analyze bed stability in the reference reach and design an equivalent streambed to be placed inside a stream simulation culvert. Systematic calculations are provided of this analysis and design process.
- Appendix N Rock Weir Design
 - Section N.1.4 (Hydrostatic Overturning Moment Method) was added to provide another alternative for sizing rock weirs and includes example calculations.
 - Figure N.3 (Rock Weir Profile) and Figure N.4 (Step-Pool Profile) were each amended to show a gravel filter as an alternative to Rock Slope Protection (RSP) Fabric.
 - Section N.3 (Step-Pool Composition) was updated to stress the need for proper compaction of the various layers during streambed placement and reconstruction.
 - Section N.4 (Engineered Streambed Mix) was added to provide this CFW method approach to designing streambed substrate.
 - Section N.6 (Gravel Filter, Alternative to RSP Fabric) was added. It provides discussion of gravel filter analysis and design criteria.
- Appendix O Rock Weir and Associated Materials
 - The “Clean Sand and Gravel” Non-Standard Special Provision (NSSP) and the “Place Native Creek Bed Material” NSSP were revised to require 90% relative compaction for their placements.

The various Chapters and Appendices of the Caltrans fish passage design document remain available for download at <http://www.dot.ca.gov/hq/oppd/fishPassage/index.htm> . The Chapters and Appendices that were updated in October 2014 are flagged; the pages in the updated pdf files show the correct date, and updated paragraphs are marked.

In addition to the Caltrans fish passage manual revisions, the following paragraph was added to the website promoting the use of the CDFW and NMFS documents in the design of Caltrans fish passage projects:

“In addition to the Caltrans’ Fish Passage for Road Crossings guidance document, CA Fish & Wildlife’s (CFW) Part XII: Fish Passage Design and Implementation document, CFW’s Culvert Criteria for Fish Passage, and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings document, should all be used in the design and development of Caltrans’ fish passage projects.”

Design Best Management Practices

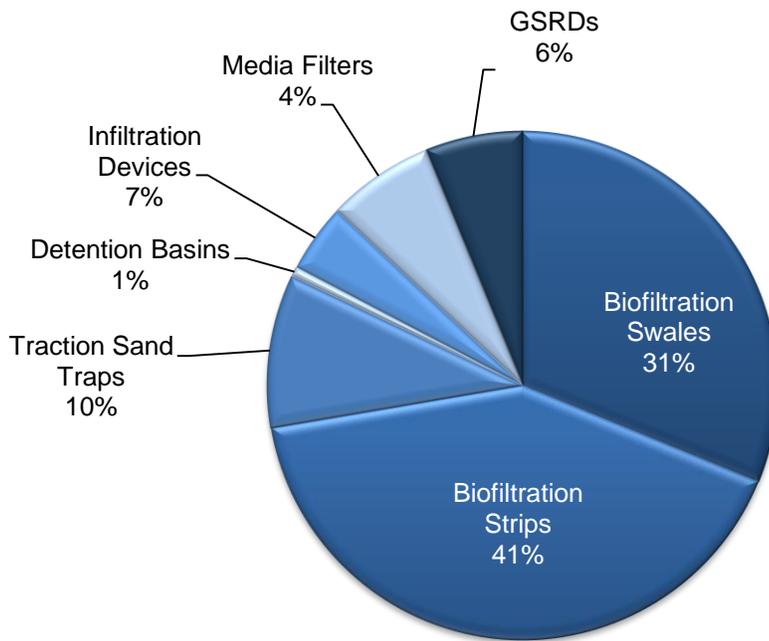
During the reporting period, the Office of Stormwater Management Design (OSWMD) evaluated its program to ensure that it complies with the Caltrans NPDES Permit.

The OSWMD continued to maintain an interactive website for the Caltrans-approved treatment BMPs that includes standalone design guidance, plans, specifications, and other pertinent information. An animated depiction with narration is provided for each type of treatment BMP to illustrate how it functions. Various improvements were made to certain BMPs based on lessons learned to improve implementation and constructability. The website also includes information on the *Project Planning and Design Guide* (PPDG) which provides design guidance for BMPs, for development of a Stormwater Data Report, and other tools and training available to facilitate the inclusion of BMPs in Caltrans projects.

Treatment BMPs Planned for Projects

Figure 1 below summarizes the percentage of 1,121 treatment BMP types planned for projects during the Design phase for the reporting period. This information is based on project completion end dates documented in the PS&E and the Stormwater Data Report (SWDR). Treatment BMPs are included to comply with the Caltrans NPDES Permit post construction treatment requirements and to implement TMDL waste load allocations, location specific and other requirements by following the selection process defined in the Project Planning and Design Guide. Appendix C contains more information about the treatment BMPs planned for projects during the fiscal year.

Treatment BMP Summary By Device Type



GSRDs – Gross Solids Removal Devices

Figure 1: Treatment BMPs Planned Summary by Device Type

Design Self-Audit Program

The Caltrans Design Self-Audit Program uses the SWDR as a tool for documenting compliance with the design pollution prevention and treatment BMP requirements of the Caltrans NPDES Permit and Draft SWMP. The SWDR and its checklists are reviewed by District staff to ensure that all BMP types are being considered and incorporated into Caltrans' projects. This review also ensures stormwater compliance throughout the project planning and design phases. The Headquarters Office of Stormwater Management Design then selects representative SWDRs and reviews them as part of a quality improvement process. These reviews are used to determine whether improvements are needed in the design guidance and training classes. See Appendix C for the results of the Design Self-Audit.

6 Construction

Implementation of Construction General Permit

For the reporting of stormwater discharges associated with construction activity, the Caltrans NPDES Permit defers to the reporting requirements of the CGP. Full implementation of the CGP occurred in this fiscal year.

The CGP requires dischargers, including Caltrans, to electronically file Permit Registration Documents (PRDs) with the SWRCB via the SMARTS. All construction projects with one acre or more disturbed soil area, or that were part of a larger common project, fully implemented the CGP requirements by filing PRDs in SMARTS. Details of each project's CGP compliance is provided on SMARTS including, but not limited to, Stormwater Pollution Prevention Plans, BMP implementation, inspection, annual reporting, monitoring, and other tasks required by the CGP.

Construction Enforcement Actions Response

During fiscal year 2014-2015, 34 of the 44 enforcement actions issued for construction activities were resolved, and 10 are pending resolution or are in progress. Caltrans continuously strives to improve its enforcement action tracking procedures, and closely monitors all Districts and projects for enforcement activity. Caltrans tracks all enforcement actions on construction projects. Headquarters provides the Districts with a consultant contract to assist them, when needed, for assistance at problematic sites and for response to enforcement actions.

Construction Self-Audit Compliance Monitoring

The Construction Compliance Evaluation Plan (CCEP) provides for the District Construction Stormwater Coordinator's (DCSWC) evaluation of the contractor's SWPPP or Water Pollution Control Program (WPCP) implementation, a process for evaluating the potential threat to water quality from a project, and rates a site for overall preparedness based on forecast storm events and contractor history. The plan also separates water quality compliance from stormwater contract administration. The system assesses compliance with water quality requirements, evaluates stormwater contract administration, and incorporates quality control, quality assurance, and independent assurance elements. The DCSWC visited projects, reviewed the contractors' SWPPPs and WPCPs, and acted as technical advisor to the Resident Engineers (RE). The REs worked with the DCSWCs to ensure that the contractors complied with the applicable requirements.

In April 2015, Caltrans adopted a revised approach to assess the appropriate level of stormwater pollution control at construction projects. This revised approach is described in the *Stormwater Management Plan - Construction Compliance Evaluation Plan* [CTSW-PL-08-999.54.1](#). The CCEP process includes the following activities to evaluate the implementation of stormwater pollution prevention measures at construction projects:

- Developing and maintaining a list of construction projects for review;
- Providing 24-hour notification of Independent Quality Assurance (IQA) site review to the RE, Senior RE, Construction Manager, and DCSWC;
- Conducting the site review;
- Completing the Construction Review Report; and
- Initiating the Corrective Action process

During the July 1, 2014 through June 30, 2015 reporting period Caltrans revised the CCEP to meet regulatory changes over the past several years. The transition to the new process consumed a majority of the reporting year, and as a result IQA reviews were only conducted during the latter months. Appendix D contains a summary of the results from the inspections performed during the reporting period.

Projects were selected for review from a comprehensive list of active construction projects presented in the SMARTS. Review priority was given to construction projects "based on their relative risk to water quality, using

among other approaches the Risk Determination Methodology contained in the CGP and the Clean Water Act 303(d) list of impaired water bodies” (U.S. EPA R-9 A.O.). The IQA review process consisted of a third-party consultant assisting in selection of construction projects for IQA Reviews, 24-hour notification to required Caltrans staff, site and BMP reviews, verbal debriefings of the site review to Caltrans staff within 24 hours of inspection, and collection of all review reports for future data processing and storage.

The IQA reviewer evaluated stormwater compliance at a construction site by comparing observed site conditions, including project stormwater contract administration, with the following:

- SWRCB regulatory drivers, e.g., the CGP and the Caltrans Statewide Permit;
- Permits, Licenses, Agreements, Certifications and Approvals, and the Lahontan RWQCB Permit, as applicable;
- Caltrans 2010 Standard Specifications and 2010 Standard Plans.

For detailed information on the CCEP and IQA review process, consult the *Year-End Performance Report, A Summary of Construction Compliance Reviews – July 1, 2014 – June 30, 2015 (CTSW-RT-15-321.04.2)* September 2015, included as an attachment on the CD.

Construction Best Management Practices

The Division of Construction modified the stormwater compliance monitoring and inspection forms used since the current CGP went into effect on July 1, 2010. The modifications streamlined documentation of contractor inspections and monitoring required for compliance with the CGP, Caltrans NPDES Permit, and contract specifications.

No new construction site BMPs were approved for use on Caltrans projects during the reporting period.

7 Compliance with the Industrial General Permit

Caltrans' stormwater discharges are regulated by the Caltrans NPDES Permit, and it is not typically necessary to apply for coverage under the Industrial General Permit (IGP). However, three areas of Caltrans' Stormwater Management Program that may involve industrial activities are

- Construction activities administered by Caltrans,
- Caltrans activities subject to the IGP, and
- Requirements for lessees of Caltrans property that conduct activities subject to the IGP.

Caltrans contract specifications require the construction Contractor to obtain coverage for applicable general permits, including the Industrial General Permit if warranted.

During the fiscal year, Maintenance facilities were evaluated for whether they require coverage under the IGP, and its Facilities Pollution Prevention Plan was prepared and updated as appropriate during the reporting period. See Section 8 of the Annual Report for more information about the Waste Management Plan (resubmitted in February 2015) listing the status of the facilities. Caltrans requires lessees to comply with the stormwater management program, including complying with the IGP, if applicable. Caltrans standard leases include stormwater language to require compliance with the IGP, if applicable, and Caltrans right of way agents make periodic site inspections to monitor compliance.

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8 Maintenance Program Activities and Facilities Operations

Illegal Connections/Illicit Discharges

During the reporting period, 19 of 34 illegal connections/illicit discharges (IC/IDs) were resolved and 11 are in the process of being resolved. Unresolved incidents are being researched, improvements are in progress, or further monitoring is required to indicate that the discharge has been eliminated. Detailed information about IC/ID investigations is provided in Appendix E.

IC/ID and Illegal Dumping Response Plan

The *Illegal Connection, Illicit Discharge (IC/ID) and Illegal Dumping Response Plan* (CTSW-RT-13-999.02) was submitted to the SWRCB in December 2013. The plan describes procedures and BMPs used to protect its MS4 and stormwater quality from potential pollutant loading due to the illicit deposition of solid or liquid materials to Caltrans' right of way.

Vegetation Control

After reviewing the Districts' proposed Vegetation Control Plans for the upcoming fiscal year, Caltrans' Headquarters Roadside Maintenance Office allocates active ingredient for each District. Caltrans assists local agencies with fire suppression (fuel abatement) and in combating invasive and noxious weeds. To prevent the development of herbicide resistance in vegetation, chemical products with slightly different modes of action are used every two to three years, which can result in minor but noticeable fluctuations in active ingredient.

Caltrans evaluated its process to track the violations of herbicide and pesticide applications on a statewide basis during the reporting period. In future Annual Reports, Caltrans will report this information and the corrective actions taken to address the violations.

Herbicide, Pesticide, and Fertilizer Applications

Caltrans' NPDES Permit requires that Caltrans report its chemical use in the Annual Report. This information is located in Appendix F (on the attached CD) and includes monthly chemical usage by type. Appendix E summarizes chemical use during the fiscal year and compared to the previous 11 years. Approximately 198,000 pounds of active ingredient were used to treat 51,000 acres in Caltrans' Integrated Vegetation Management program during fiscal year 2014-2015. All Districts had an increase in the use of herbicides during the reporting period, except for District 9. Appendix E lists the reasons for the increases in chemical use.

Chemical Use on Vegetated Treatment BMPs

No chemicals were applied to any vegetated treatment BMPs.

Maintenance Self-Audit Compliance Monitoring

A third party (consultant) reviewed maintenance facilities and activities for compliance with the requirements of the SWMP and NPDES permit. Caltrans' goal is to inspect a minimum of 10 maintenance activities per District and a minimum of 20% of maintenance facilities per year. Each review consists of a documentation audit and a site inspection. Each facility is required to be reviewed at least once every 5-year period. The Division of Maintenance staff provided support to the consultant and facilitated the inspections. The statistical information from the reviews is summarized in Appendix E. No critical deficiencies were observed by the consultant during reviews in the reporting period.

At each facility, the following areas were reviewed for compliance:

- 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
- Presence and adequacy of a FPPP.

Appendix G lists the facilities that were inspected during the fiscal year, as well as the inspections that occurred in the past 12 fiscal years.

Facility Pollution Prevention Plans

Caltrans is required to develop a Facility Pollution Prevention Plan (FPPP) for each of its maintenance facilities. Each FPPP describes the activities conducted at the facility and the BMPs to reduce or eliminate the discharge of pollutants in stormwater runoff from the facility. FPPPs are updated or revised as needed during the year. All maintenance facilities have FPPPs that are updated or revised as needed. Presently, there are 868 completed FPPPs for maintenance yards, storage and material sites, California Highway Patrol (CHP) and Border Protection Stations, rest areas, and equipment shops. However, the number may vary as sites open or close in future operations. An inventory of FPPPs is included in Appendix J on the attached CD.

Waste Management Plan

Caltrans revised the *Waste Management Plan – Waste Management Activities and Best Management Practices* for submittal to the State Board in February 2015. The Waste Management Plan describes Division of Maintenance field crews’ activities and BMPs that are used to protect the environment from waste stored within Caltrans right of way. It fulfills the Caltrans NPDES Permit requirement to develop a Waste Management Plan that includes a comprehensive inventory of waste storage, transfer, and disposal sites; the source(s) of waste and the physical and chemical characterization of the waste retained at each site; estimated annual volumes of material; and existing or planned waste management practices for each waste and facility type. Caltrans characterized its waste programmatically according to the procedures described in the Waste Management Plan.

Landslide Management Plan

The *Landslide Management Plan* (CTSW-OT-13-999.02) describes the Division of Maintenance field crew activities and BMPs used to protect stormwater quality from potential pollutant loading due to landslide (earth, rock or debris), debris flows, rockfall and post-wildfire events within Caltrans’ right of way. Summaries of the activities Caltrans completed during the reporting period to meet these requirements are discussed in the following sections. The backup data for these activities is available in Appendix E and Appendix H.

Enhanced Storm Drain Inspection and Cleaning Activities

The Division of Maintenance implements an Enhanced Annual Storm Drain Inlet Inspection and Cleaning Program in the metropolitan areas of Los Angeles and Ventura (District 7), Orange (District 12), and San Diego (District 11) counties. Detailed information about Caltrans’ enhanced storm drain inspection and cleaning activities during the reporting period is provided in Appendix E.

Slope Inspections

Caltrans’ Division of Maintenance has an ongoing program in accordance with Caltrans’ NPDES Permit Section E.2.h.3)a)iii) and the Draft SWMP to inspect roadside vegetated slopes for erosion. This requirement is led by District Maintenance Stormwater Coordinators who are members of the Maintenance Stormwater Advisory Team.

The inspections are conducted on a five-year cycle. In addition to the SWMP mandated program, the Division of Maintenance conducts a storm patrol and erosion control program. Maintenance Supervisors and delegated staff patrol the state's highway system to inspect for any issues related to safety, facility preservation and erosion control due to storm events.

The Division of Maintenance also investigates public complaints related to stormwater damage. The Division of Maintenance will normally conduct minor storm damage repair on projects in which the cost does not exceed \$1,000 per site or \$15,000 per mile. Major storm damage repair projects exceed these cost levels. During the fiscal year, the Districts identified 174 minor and 58 major slope problems. Detailed information about slope inspections conducted by District Maintenance Stormwater Coordinators during the fiscal year is available in Appendix H.

Erosion Control and Stabilization Activities in Areas Prone to Erosion

District staff is responsible for ensuring that work orders are properly prepared and submitted for major/minor erosion repair activities. The work order defines the limits of the activity. Areas prone to erosion are defined as segments of highway requiring erosion control and stabilization activities for the past three consecutive years.

The Headquarters Division of Maintenance staff conducts a geographic information system analysis of the submitted work orders for erosion work. IMMS data for three consecutive years is mapped to define the segments of highway where continuous work has been needed. If District staff requests that an area be redlined, then IMMS must have three years of data to back it up and the work orders should be part of the annual Headquarters review.

Slides and slip-outs encountered during routine surveillance and inspections are evaluated for repair with priority going to eroding slopes in Environmentally Sensitive Areas. Recommendations were developed for site-specific remedial measures, from minor grading or seeding to installation of major slope stabilization systems to maintain slope and soil stability. Detailed information about Caltrans' erosion control and stabilization activities performed in areas prone to erosion during the reporting period is provided in Appendix H.

Trash and Litter Removal Activities

Caltrans collects trash through several activities that District Maintenance personnel perform on a regular basis. These activities include storm drain maintenance, roadway sweeping, District crew/California Conservation Corps (CCC) trash collection, the Caltrans Parolee Program, and the Adopt-A-Highway Program, and public education emphasizing trash and litter prevention. Table E-16, in Appendix E, shows the amount of trash and litter removed by Caltrans' activities.

The Division of Maintenance has several integrated categories in its activities to reduce and eliminate trash and litter from affecting surface waters.

Storm Drain Maintenance

The Division cleans storm drainage system inlets and culverts of accumulated materials. These activities are conducted manually and with vector truck operations.

Road Sweeping

The Division conducts ongoing road sweeping activities with mechanized sweepers to collect and dispose of materials off the roadway surfaces.

District Crew Collection

District Maintenance crews conduct manual cleanup of trash and litter from Caltrans' right of way.

California Department of Corrections and Rehabilitation and CCC Programs

The Division of Maintenance has partnership programs with the California Department of Corrections and Rehabilitation and the CCC. Parolees and Corps employees provide contracted services to assist in the removal of trash and litter from Caltrans' right of way.

Adopt-A-Highway Program

The Caltrans [Adopt-A-Highway](#) Program provides an avenue for individuals, organizations, or businesses to help maintain sections of roadside for various activities including litter removal within California's State Highway System.

Public Education

The Division of Maintenance helps sponsor the California Statewide Litter Collection, Enforcement and Beautification Day event held in the spring on or around "Earth Day" each year. Caltrans staff volunteers to collect litter and raise public awareness of the issue. Caltrans participates in supporting the California "Keep California Beautiful" campaign with Caltrans' "Don't Trash California" program.

The estimated annual volumes of trash and litter removed by District are summarized in Table E-16 (Appendix E). The litter reduction and elimination protocols established by Caltrans are defined in its [California Department of Transportation Litter Abatement Plan](#) (2007).

Drain Inlets/Culverts Inspected and Cleaned

Caltrans inspected and cleaned over 79,000 drainage system facilities as needed during fiscal year 2014-2015. Detailed information about drain inlets and culverts inspected and cleaned during the fiscal year is provided in Appendix I.

9 Non-Departmental Activities

Encroachment Permits Implementation Activities

The Encroachment Permits Division implements the Caltrans NPDES Permit requirements by ensuring that any permits issued include requirements to comply with the Caltrans NPDES Permit. The Division’s activities generally include preliminary engineering review, site inspection, verification of NPDES permit coverage, plan review, meeting and communication with the Permittee during Encroachment Permit review for municipalities, developers, utilities and private entities, and monitoring and documentation of the Permittee’s implementation and maintenance of Best Management Practices during construction activities. In addition, District Permit staff supported the processing and inspection of the stormwater components associated with Encroachment Permit submittals. A majority (57%) of the stormwater review submittals involved linear construction or utility and drainage maintenance and/or improvements, while the remainder (43%) consisted of highway reconstruction, rehabilitation and maintenance activities.

Airspace Leases

As required by the SWMP, this section summarizes progress on the review and revision of existing air space leases each year. Airspace leases are legal documents defining areas within the state highway right-of-way that can safely accommodate privately managed uses, and they outline terms agreed upon at the time of their execution. The table below lists the approximate number of leases, including new and renewed leases by District as of June 30, 2015. Only the overall totals are shown, since the Right-of-Way Property Management System does not distinguish between new and renewed leases.

Table 6: Airspace Leases Modified to Include SWMP Requirements 2014-2015

District	Total Number of Leases (New and Existing as of June 30, 2015)	Total Number of Leases with Stormwater Language (New and Renewed as of June 30, 2015)
1	1	0
2	4	1
3	40	11
4	183	152
5	12	12
6	2	1
7	212	144
8	4	4
9	0	0
10	10	3
11	49	23
12	16	15
Total	533	366

There were 533 airspace leases statewide as of June 30, 2015, 366 (68.7%) of which have stormwater compliance language. Those with no stormwater language incorporated are long-term leases that were executed before the Stormwater Management Program was established. Caltrans incorporates stormwater requirements when these leases expire, the tenant vacates, a new tenant and lease are established, or the leases are renewed. All renewed and new leases contain the stormwater management clause, which did not change during the reporting period.

10 Non-Stormwater Activities/Discharges

Exempt and Conditionally Exempt Non-Stormwater Discharges

The State Board and Caltrans reviewed the list of exempt and conditionally exempt non-stormwater discharges and their requirements as part of the SWMP update. The changes will be incorporated into the final SWMP, which is anticipated for public release and review during the next reporting period.

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11 Training

Training

A summary of all trainings and the total personnel trained per division is available in Appendix L. An assessment of all training activities is available in Appendix N.

Headquarters/Environmental Analysis Division

The Headquarters Division of Environmental Analysis offered training at the Statewide Stormwater Workshop/Training during fiscal year 2014-2015. All divisions were represented at the training, including Environmental Analysis, Construction, Design, Encroachment Permits, Landscape Architecture, Legal, Maintenance, and Right of Way. The training sessions discussed the implementation of the NPDES Permit for each of the divisions and included the following topics:

- Statewide NPDES Permit Overview
- Innovative Water Treatment
- Stormwater Compliance and Enforcement Response Program
- Caltrans Efforts to Keep Tahoe Blue
- Compliance Units and Post-Construction Requirements
- San Francisco Bay Trash Cooperative Program
- Monitoring and Discharge Characterization Program
- 90% Walk-Through/TBMP Handoff Construction to Maintenance Process
- Construction General Permit Compliance (Upcoming CGP Permit Renewal, IGP Compliance, and Non-Departmental Activities)
- Maintenance Program Stormwater Permit Highlights (Landslide Management, Waste Management, and FPPPs)
- Reporting – LRP, SMARTs, and Incident Report

Encroachment Permits Office

Headquarters Traffic Operations Encroachment Permits and Engineering Support offered access to Forrester's self-paced online courses and workshops in Erosion and Sediment Control.

Headquarters Construction Stormwater and Headquarters Traffic Operations Encroachment Permits and Engineering Support coordinated delivery of internal construction refresher training using district video teleconferencing to supplement the face-to-face training offered under the State Learning Management System.

Headquarters participated in District informational sessions that focused on the assessment of District roles and responsibilities, storm water assessment, charging practices, and a refreshment on the 2013 justification given to the Department of Finance for augmenting or maintaining the existing stormwater resources.

One hundred and twenty-six Encroachment Permits staff consisting of permit inspectors and coordinators from Headquarters and Districts participated in online training webinars, online workshops, informational sessions and the use of teleconference during Caltrans Construction Stormwater training modules. Twenty-seven Encroachment Permits staff from Districts and Headquarters participated in the Caltrans Construction Stormwater Training Modules.

Design

The Design Stormwater Program continued to focus on curriculum development during fiscal year 2014-2015. Two classes were offered for Stream Stability Rapid Assessment (Hydromodification) conducted on July 15th and 16th, 2014. Stormwater design requirements, tools, and guidance were presented and discussed at Caltrans' Project

Engineer Academies. Conducted a Design Stormwater Coordinator Workshop to discuss the implementation of the CT NPDES Permit requirements.

Construction

During the 2014-2015 fiscal year, construction stormwater classes were offered to Construction personnel on stormwater topics.

Construction Contractor Training

During the reporting period, contractor personnel received training on BMP implementation, non-stormwater management, SWPPP development, soil stabilization, and other stormwater management best practices to comply the Caltrans NPDES Permit, CGP, and Lake Tahoe CGP. Detailed training activities for construction contractors are provided in Appendix L.

Maintenance

The Maintenance Environmental Conserve California Circular (ME3C) is a conservation and environmental protection training aid published by the Department's Headquarters Maintenance Division. Primarily created for Maintenance field personnel, the ME3C is designed to educate as well as facilitate task management, increase operational efficiency, and stimulate environmental protection and conservation innovation. Beginning with the December 2014 issue, the ME3C has been published every month instead of every other month. Nine ME3Cs were published during this reporting period. The topics covered, in order of presentation, were:

- Outdoor water conservation, irrigation maintenance, and a portable water treatment and energy generation system that uses electrically charged microbes (the "EcoVolt" by Cambrian Innovation of Massachusetts).
- Indoor water conservation, and water desalination using reverse osmosis being developed by Oasys Water of Massachusetts.
- Snow and ice management BMPs.
- Minor slide and slipout BMPs.
- Types, causes, and signs of landslides.
- Structural stormwater treatment device BMPs.
- Structural stormwater treatment device BMPs.
- Structural stormwater treatment device BMPs.

District training totals are summarized in Appendix L.

Landscape Architecture Program

The Landscape Architecture Program (LAP) continued to support Caltrans Landscape Architects in obtaining their Certified Professional in Erosion and Sediment Control certification.

During the reporting period, the LAP:

- Trained Caltrans Contractors on project issues that they find most difficult to bid or build. Topics included effective source control techniques, water conservation, and establishing erosion control materials.
- Provided new statewide training on Selecting Effective Erosion Control Treatments at the 2015 Landscape Architecture Academy. This class taught how to analyze a project site and select the most effective source control and erosion control tools. Lessons learned from recent projects were used to highlight universally effective methods to control erosion.
- Provided new statewide training on Erosion Control Documentation at the 2015 Landscape Architecture Academy. This class taught how to document erosion control design decisions and specify erosion control materials using the 2010 Standard Specifications and Erosion Control Plans and Tables

- Provided new statewide training on Stormwater Source Control at the 2015 Landscape Architecture Academy. This class taught how traditional Caltrans Treatment BMPs are transitioning to Green Highway Design and Low Impact Development with an emphasis on reducing run-off to mitigate the impacts from hydromodification and address water quality requirements.
- Provided new statewide training to Landscape Architects in seven District offices on how to implement the Model Water Efficient Landscape Ordinance and improve water use efficiency in highway planting design. During this reporting period, 131 Landscape Architects, or 100% that are involved in this type of work at Caltrans received formal training.
- Provided training to 58 employees on the basics of Highway Irrigation Design at the 2015 Landscape Architecture Academy. This training is related to the Model Water Efficient Landscape Ordinance and Innovative Irrigation Technology courses. It describes the main components, best practices of irrigation design, and the necessary calculations required to design an irrigation system.
- Provided training on Lessons Learned from Contractor Meetings that included the challenges that landscape and erosion control contractors face on Caltrans projects. The training discusses design techniques that reduce Contract Change Orders, potential claims during construction, and information that will enhance project constructability and performance.
- Provided standards, design guidance, tools and support for the District Landscape Architects in the development of permanent erosion control standards for highway construction projects.
- Updated the Erosion Control Toolbox, a one-stop reference to provide Caltrans Landscape Architects with information necessary to design successful, effective and cost efficient erosion control treatments.

New Training Courses (Statewide)

Traffic Operations Encroachment Permits and Engineering Support Branch submitted to Headquarters Division of Environmental Analysis the justification statement for development, implementation and effectiveness evaluation of New Training for Permit Inspectors and Writers.

Right of Way

The Environmental Analysis Division delivered stormwater training to 30 attendees of a Right of Way Property Management and Airspace Functional Council Meeting in San Luis Obispo on October 22, 2014. Caltrans Headquarters Stormwater Division of Environmental Analysis (DEA) began developing a one-day training class in January 2015 covering Right of Way responsibilities. The class is to be presented twice, one session in the northern part of the state and one session in the southern part of the state during the next fiscal year.

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12 Public Education and Outreach

Public Education Activities

Caltrans' public education program encompasses the "Don't Trash California" Campaign, [Adopt-A-Highway](#), and partnerships with local organizations. The primary goal of the "Don't Trash California" campaign is to raise public awareness of stormwater pollution and its prevention on California's freeways and highways. During the fiscal year, the "Don't Trash California" website was compromised and subsequently inactivated. A new contract for developing and implementing the public education program was under development during the fiscal year. The new contract is expected to be executed during the next reporting period. Caltrans collaborated with the State Board on the statewide public education program, and the objectives and scope to be conducted under the public education contract. Appendix K summarizes the public education activities performed statewide.

Caltrans co-sponsors CASQA's Water Quality NewsFlash, a bi-weekly, electronically distributed update of stormwater and related news for CASQA members, as a public education and outreach partnership. The NewsFlash provides the stormwater community with timely and relevant water quality regulatory information from the federal, state, and regional levels.

Adopt-A-Highway Statewide Program

[Adopt-A-Highway](#) is a cooperative program between organizations with volunteers to collect trash along the highways, and be recognized for their contribution to keeping the environment and highways clean. The statewide program's accomplishments during the fiscal year include the collection of 13,362 cubic yards of material along adopted highways. The Adopt-A-Highway program webpage is serving as the interim "Don't Trash California" webpage while that site is reconstructed.

Public Education Efforts by District

Highlights of achievements by the Districts' public education programs during the fiscal year include the following:

- **District 1** – District Maintenance Crews participated in an Earth Day cleanup event.
- **District 2** – The District's Adopt-A-Highway program participants removed 401 cubic yards of trash during the fiscal year.
- **District 3** – Adopt-A-Highway groups removed 316 cubic yards of trash during "California Cleanup Day" in September 2014 and in the "Great American Cleanup-California" in April 2015.
- **District 4** – District 4 arranged four Quarterly Cleanups, which took place on 9/17, 3/18, 4/23, and 6/17 this past FY. On these days, Caltrans Maintenance, NPDES, and Adopt-A-Highway make a special effort to sweep and pick up trash while the CHP increases enforcement. Public Information Officer attempted to secure extra media coverage. Changeable Message Signs are used to broadcast "Don't Trash California."
- **District 5** – District 5 donated "Don't Trash California" trash bags and other supplies to local beach and creek cleanup events. District 5 also removed approximately 4710 cubic yards of trash during cleanup days in the 2014/2015 fiscal year.
- **District 6** – The District distributed "Don't Trash California" educational materials at and participated in the "Rocktoberfest: Rock Your Career" event with Willow International Community College.
- **District 7** – The District's Adopt-A-Highway program participants removed 1,636 cubic yards of trash during the fiscal year.
- **District 8** – The District hosted "Bring Your Child to Work Day" and presented the "Empower: Knowledge + Choice = Strength" interactive presentation to the participants. The District also passed out 250 "Don't Trash California" pamphlets at a CHP Open House and had an Earth Day press release about litter removal.

District 9 – The District continued its Safety Roadside Rest Area “Don’t Trash California” activities with its “How to Prevent Water Pollution” poster information campaign. The District also removed 1,200 cubic yards of trash during its annual cleanup and visited Bishop schools to inform students about the effects of highway litter on waterways.

- **District 10** – The District’s Adopt-A-Highway program participants removed 1,001 cubic yards of trash during the fiscal year.
- **District 11** – The District participated in the Annual California Cleanup Day/Caltrans Adopt-A-Highway Program, removing 1,849 cubic yards of trash.
- **District 12** – The District hosted an activity for the 2015 “Children's Water Education Festival” at UC Irvine, where it informed students and teachers about the “Don’t Trash California” campaign. In addition, the District educated students who participated in the Bring Your Child to Work Day about the effects of litter on the environment and Caltrans’ solutions to these problems.

13 Region-Specific Activities

TMDL Requirements

On May 20, 2014, the State Board released an amendment to the Caltrans NPDES Permit focusing on TMDL requirements. The revised sections included the Order, Fact Sheet, and Attachments IV, V, VIII, and IX. In response to comments received, the State Board released a revised amendment on May 9, 2014, followed by a change sheet and subsequent adoption hearing on May 20, 2014, during which all revisions were approved. The Caltrans NPDES Permit revisions are pending approval at the Office of Administrative Law.

Caltrans submitted the Final Reach Prioritization List to the State Board on October 1, 2014, and approval is anticipated during the next reporting period. Caltrans discussed the possibility of an interagency agreement with the State Board to establish a Cooperative Grant Program administered by the State Board. This interagency agreement will allow Caltrans to transfer funding via the State Board to local agencies in support of TMDL activities that will assist Caltrans in meeting its TMDL obligations.

Caltrans monitored designated TMDL locations throughout the state to comply with the requirement to monitor water quality at a minimum of 100 Tier 1 sites (see Section 3). Monitoring details and results are included in the Monitoring Results Report due on October 1, 2015. Caltrans submitted the Comprehensive TMDL Monitoring Plan to the State Board on January 1, 2015. This plan will be revised as additional TMDL requirements are added to the Caltrans NPDES Permit.

North Coast Region

Sources of Sediment

Caltrans quantified and prepared an inventory of excess sources of sediment and threatened discharges in the North Coast Region. The inventory was prepared and submitted to the North Coast Regional Board on September 19, 2014. Districts will propose sediment control activities where necessary based on a field verification of the Sediment Inventory. Field verification is currently ongoing.

Riparian Vegetation Removal

The removal of riparian vegetation may result in a threatened discharge or cause an exceedance of water quality objectives. Caltrans protected and restored riparian vegetation on a project-by-project basis in the North Coast Region. If vegetation removal required a permit from the Regional Board, a permit was obtained and its requirements were implemented.

San Francisco Bay Region

Trash Load Reduction Reporting

The Trash Load Reduction Workplan was submitted to the Regional Board on September 2, 2014. The Regional Board reviewed the Workplan and provided comments on December 5, 2014. Caltrans and the Regional Board have held several meetings since then, to resolve comments. Caltrans submitted an updated Workplan on June 1, 2015 with a commitment to complete a field assessment of 475 miles to identify - very high, high, moderate and low/none trash generation areas, and work with local permittees to identify opportunities for cooperative implementation. Caltrans will resubmit a Trash Load Reduction Plan on September 1, 2015 to report the results from the field assessment and outline a strategy for implementation of load reduction actions. The implementation will commence once the plan is approved by the Regional Board.

Stormwater Pump Stations

Caltrans has started a five-year program to inspect and monitor pump stations in the San Francisco Bay Region pursuant to Caltrans NPDES Permit, Attachment V (Region Specific Requirements). The pump stations are all located within District 4. The Permit requires monitoring be conducted after a minimum two-week antecedent dry period with no precipitation. Separate communication from the Regional Board clarified that the ideal monitoring period would be during July and August.

During 2014-15, Caltrans monitored 18 pump stations within the Region to inspect and collect dissolved oxygen (DO) data. None of the pump stations had a DO level below 3 mg/L in the dry weather discharge. Most pumping activities were due to localized ground water discharge. The table below is the monitoring summary of the 2014-2015 dry season for DO at pump stations.

Table 7: District 4 Pump Station Dissolved Oxygen Monitoring (2014-2015) Results Summary

Inspection Sequence	Pump Station Name	Location	Latitude (north) ¹	Longitude (west) ¹	Receiving Water Body ²	Inspection Date	Monitoring Results ³	Dissolved Oxygen [mg/L]		
								Min.	Max.	Average
1	Silver Spring	04-ALA-0084-16.94	37°35'35"N	121°53'21"W	Alameda Creek	8/18/2014	ND, NCA	NA	NA	NA
2	Lake Boulevard OC	04-ALA-0084-R5.42	37°33'23"N	122°02'40"W	Flood Control Channel	8/18/2014	ND, NCA	NA	NA	NA
3	Niles Junction UP	04-ALA-0084-10.65	37°34'14"N	121°58'11"W	Alameda Creek	8/18/2014	ND, NCA	NA	NA	NA
4	South Niles UP	04-ALA-0238-3.41	37°34'25"N	121°58'9"W	Alameda Creek	8/18/2014	ND, NCA	NA	NA	NA
5	Bird Avenue OC	04-SCL-0280-R2.90	37°19'18"N	121°53'54"W	City of San Jose	8/19/2014	ND, NCA	NA	NA	NA
6	Cochrane Road OC	04-SCL-0101-R17.89	37°9'15"N	121°39'9"W	Coyote Creek	8/19/2014	ND, NCA	NA	NA	NA
7	Burnett Avenue OC	04-SCL-0101-R18.68	37°9'45"N	121°39'45"W	Coyote Creek	8/19/2014	ND, NCA	NA	NA	NA
8	Winchester (85)	04-SCL-0085-R11.05	37°15'33"N	121°57'55"W	Los Gatos Creek	8/19/2014	ND, NCA	NA	NA	NA
9	Saratoga Avenue (85)	04-SCL-0085-R13.70	37°16'39"N	122°0'26"W	Saratoga Creek	8/19/2014	ND, NCA	NA	NA	NA
10	Highway 85/17	04-SCL-0085-10.4	37°15'21"N	121°57'15"W	Los Gatos Creek	8/19/2014	ND, NCA	NA	NA	NA
11	East San Jose	04-SCL-0101-36.57	37°21'30"N	121°52'18"W	Miguelita Creek	8/19/2014	ND, NCA	NA	NA	NA
12	Silver Creek	04-SCL-0101-36.34	37°21'24"N	121°52'6"W	Miguelita Creek	8/19/2014	ND, NCA	NA	NA	NA
13	Airport Parkway	04-SCL-0087-8.86	37°22'10"N	121°55'35"W	Guadalupe River	8/19/2014	ND, NCA	NA	NA	NA

Table 7: District 4 Pump Station Dissolved Oxygen Monitoring (2014-2015) Results Summary

Inspection Sequence	Pump Station Name	Location	Latitude (north) ¹	Longitude (west) ¹	Receiving Water Body ²	Inspection Date	Monitoring Results ³	Dissolved Oxygen [mg/L]		
								Min.	Max.	Average
14	Coleman Avenue	04-SCL-0880-2.70	37°20'59"N	121°55'5"W	City of San Jose	8/20/2014	DO+, NCA	9.55	9.98	9.75
15	Taylor Street Overcrossing	04-SCL-0087-10.07	37°20'47"N	121°54'16"W	Guadalupe River	8/20/2014	ND, NCA	NA	NA	NA
16	North First Street OC	04-SCL-0237-6.87	37°25'11"N	121°57'40"W	Alviso Slough	8/20/2014	ND, NCA	NA	NA	NA
17	82/880 SEP	04-SCL-0880-2.11	37°20'37"N	121°55'34"W	City of San Jose	8/20/2014	DO+, NCA	9.63	10.00	9.73
18	Auzerais Avenue	04-SCL-0087-5.21	37°19'29"N	121°53'32"W	Guadalupe River	8/20/2014	ND, NCA	NA	NA	NA

1. Longitude and latitude were obtained during site reconnaissance and are based on the North American Datum of 1983 (NAD83)

2. Receiving Water Body determine during site reconnaissance and through interviews with Caltrans Maintenance staff

3. ND = No discharge, NCA = No corrective action needed, DO+ = Do levels meet or exceed minimum levels [Min=3 mg/L]

During the 2014-2015 reporting period, 18 pump stations were selected and site verified for use during the 2015-2016 monitoring season. Seventeen pump stations were found to be suitable for monitoring. One pump was found to be unsuitable for monitoring, because it is not owned, maintained and operated by Caltrans. Pump stations were selected based on their geographic location. The table below summarizes the pump stations proposed to be monitored during the 2015-2016 dry season.

Table 8: District 4 Pump Station Dissolved Oxygen Future 2015-2016 Monitoring Summary

Inspection Sequence (Plan)	Site Name	Site Verification Status	Location	Latitude (north) ¹	Longitude (west) ¹	Catchment Area (acre) ²	Receiving Water Body ³
Pump Stations Suitable for Monitoring							
1	Larkspur Drive	Suitable	04-SM-0280-R18.64	37°35'48"N	122°25'18"W	0.83	San Mateo Creek
2	South Larkspur Drive	Suitable	04-SM-0280-R18.38	37°35'38"N	122°25'6"W	2.34	San Mateo Creek
3	Hillsdale Boulevard	Suitable	04-SM-0082-9.37	37°32'13"N	122°17'49"W	8.3	Laurel Creek
4	280/92 SEP	Suitable	04-SM-0092-R7.41	37°30'28"N	122°20'14"W	4.62	Laurel Creek
5	Cañada Road	Suitable	04-SM-0280-10.25	37°30'1"N	122°19'52"W	43	San Mateo Creek
6	Rancho Pulgas	Suitable	04-SM-0280-9.42	37°29'53"N	122°18'59"W	11.94	Cañada Road Reservoir
7	Henderson UP	Suitable	04-SM-0101-3.05	37°28'44"N	122°10'20"W	9.44	1) Menlo Park System 2) Canal by salt ponds

Table 8: District 4 Pump Station Dissolved Oxygen Future 2015-2016 Monitoring Summary

Inspection Sequence (Plan)	Site Name	Site Verification Status	Location	Latitude (north) ¹	Longitude (west) ¹	Catchment Area (acre) ²	Receiving Water Body ³
8	Ravenswood Slough	Suitable	04-SM-0084-R27.98	37°29'1"N	122°8'41"W	1,900	Ravenswood Slough
9	University Avenue	Suitable	04-SCL-0082-25.89	37°26'31"N	122°9'56"W	2.2	City of Palo Alto
10	Dana Street OC	Suitable	04-SCL-0237-RO.60	37°23'9"N	122°3'54"W	13.25	Stevens Creek
11	Saratoga-Sunnyvale Road	Suitable	04-SCL-0085-15.7	37°18'4"N	121°1'59"W	18.89	Rodeo Creek
12	Prospect Road	Suitable	04-SCL-0085-15.1	37°17'37"N	122°1'30"W	14.6	Rodeo Creek
13	Pollard Road	Suitable	04-SCL-0085-11.94	37°15'52"N	121°58'49"W	4.71	Los Gatos Creek
14	Saratoga Avenue (280)	Suitable	04-SCL-0280-5.98	37°19'4"N	121°58'29"W	19.27	City of San Jose
15	Winchester (280)	Suitable	04-SCL-0280-4.59	37°19'2"N	121°57'1"W	11.03	San Tomas Aquinas Creek
16	Menker Avenue	Suitable	04-SCL-280-4.41	37°19'2"N	121°55'20"W	49	Los Gatos Creek
17	Southwest Expressway OC	Suitable	04-SCL-0280-R3.83	37°18'54"N	121°54'43"W	34.9	Los Gatos Creek
Pump Stations Unsuitable for Monitoring (Not Owned, Maintained, or Operated by Caltrans)							
18	San Jose UP	Unsuitable	04-SCL-0082-8.40	37°19'54"N	121°54'11"W	1.5	City of San Jose

¹ Longitude and latitude were obtained during site reconnaissance and are based on the North American Datum of 1983 (NAD83)

² Unless otherwise noted, catchment areas were obtained from Bridge Inspection Records Information System (BIRIS) Reports

³ Receiving Water Body determined during site reconnaissance, BIRIS Reports, and or through interviews with Caltrans Maintenance staff

Lahontan Region

For projects that met the criteria specified in Provision E.2.d. of the permit (Project Planning and Design), the Lahontan Region numeric sizing criteria for stormwater treatment control BMPs in the Truckee River, East Fork Carson River, West Fork Carson River, and Mammoth Creek Hydrologic Units were applicable. This information is discussed in the Stormwater Data Report prepared for the project. During the fiscal year, no treatment control BMPs were designed to meet these criteria.

Caltrans completed the Natural Environment as Treatment (NEAT) study in 2009 and submitted a report to the Lahontan Region. Projects that met the treatment threshold criteria within the Tahoe Basin were evaluated in conjunction with the NEAT Study as part of the treatment BMP strategy. The goal to infiltrate runoff from the 20-year, 1-hour storm events in areas that discharge directly to surface waters was achieved wherever practicable. However, due to constraints such as limited infiltration areas and soil types, this requirement was not fully achieved in all project areas. The Stormwater Data Reports prepared for each project document the treatment BMP analysis.

Environmental Improvement Program (EIP) projects along the ED-50 and ED/Pl-89 corridor were programmed before completion of the NEAT Report in 2009. Therefore, these projects were not designed and constructed based upon “priority areas” identified in the study.

However, as each project progressed through the design phase, the NEAT, Modified Environment as Treatment (MEAT) and Treated Environment as Treatment (TREAT) segments/areas were identified. Using the NEAT Report, approved treatment Best Management Practices (BMPs) from the PPDG were evaluated and selected to

provide water quality treatment in the MEAT and TREAT segments. The NEAT Report and the PPDG were used as guidance to identify, evaluate and select the best treatment options for MEAT and TREAT segments, based upon BMP siting constraints.

The following EIP projects implemented some form of treatment BMP in MEAT and TREAT segments, if the area permitted:

- ED-89, EA 03-1A8424 – Route 50 to Cascade Road
- ED-89, EA 03-1A8434 – Emerald Bay
- ED-89, EA 03-1A8444 – Meeks Bay
- ED-89, EA 03-1A8454 – Tahoma
- ED/Pla-89, 03-2A9204 – ED County Line to Route 28, Lakeside

The prohibition to remove vegetation or disturb existing ground surface conditions between October 15th and May 1st was adhered to in the East Fork Carson River and West Fork Carson River Hydrologic Units, and Mono and Inyo counties. However, in the Truckee River and Lake Tahoe Hydrologic Units, District 3 was granted several variances to disturb soil from October 16th through April 30th for construction projects and maintenance activities in both hydrologic units. The construction projects received approval to begin or continue soil disturbing activities beyond the prohibition dates, when favorable weather conditions allowed. Maintenance staff were granted approvals beyond the October 15th prohibition date to continue routine roadside maintenance activities (gutter, ditch, and cut slopes) and to prepare for the winter season.

ASBS Compliance Plan

Caltrans submitted a draft ASBS Compliance Plan to the State Board on September 20, 2013. At Caltrans' request (letter, June 25, 2013), the State extended the final ASBS Compliance Plan due date to September 2015. A final ASBS compliance Plan is under preparation and is due September 20, 2015. Caltrans requested a minimum one-year extension for submitting the plan as the monitoring effort is not completed and the Natural Water Quality (NWQ) limits need to be revised based on additional data collected. The State Board advised submitting a compliance plan based on available data and un-revised NWQ. Compliance determinations would not be possible due to incomplete data and NWQ limits. A revised plan will be prepared when the monitoring effort is completed. Caltrans has submitted a proposal to revise the monitoring protocols for ASBS sites since monitoring data in several ASBS areas show zero detections / exceedances.

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14 Overall Program Effectiveness Evaluation Approach

Caltrans approach to program effectiveness evaluation is comparable to the *Approach to Planning for and Assessing the Effectiveness of Stormwater Programs* (CASQA 2015)². The CASQA effectiveness evaluation approach, as described in the 2015 CASQA Guidance Manual, uses a series of six categories of Outcome Levels representing a comprehensive assessment of conditions. The Outcome Levels identified in the 2015 CASQA Guidance Manual are as follows:

- **Outcome Level 6 (Receiving Water Conditions):** Level 6 Outcomes describe receiving water conditions. They can apply either to existing conditions or to improvements that will be sought over time through program implementation.
- **Outcome Level 5 (MS4 Contributions):** Level 5 Outcomes may be measured within the MS4, or as discharges from it. Evaluation typically focuses on pollutant concentrations and/or loads. Level 5 Outcomes provide a direct linkage between upstream sources and receiving waters and are a critical expression of program success.
- **Outcome Level 4 (Source Contributions):** Level 4 Outcomes measure reductions in the discharge of pollutants from sources.
- **Outcome Level 3 (Target Audience Actions):** Level 3 Outcomes address the actions of target audiences and whether or not changes are occurring over time. The major categories of target audience actions are pollutant-generating activities (PGAs), BMPs, and supporting behaviors.
- **Outcome Level 2 (Barriers and Bridges to Action):** Level 2 Outcomes provide a means of gauging whether activities are producing changes in the awareness, knowledge, or attitudes of target audiences. Level 2 Outcomes are often used to gauge progress in, or to refine approaches for, achieving Level 3 Outcomes.
- **Outcome Level 1 (Stormwater Management Program Activities):** Level 1 Outcomes, which are often defined by specific stormwater permit requirements, address a variety of stormwater management program activities. This outcome level measures the *implementation* of the program, not the *impact* that the stormwater management program is having.

The Outcome Levels help to categorize and describe the desired results or goals of the program. The Outcome Levels represent ways in which the effectiveness of the program can be determined, using a broad array of metrics. The ultimate goal of the Stormwater Management Program is improving runoff quality (Level 5) and improving receiving water conditions (Level 6). In general, Levels 1, 2, 3, and 4 may be considered Implementation Outcomes, and Levels 5 and 6 may be considered Water Quality Outcomes.

The components required by the 2012 Permit for an Overall Program Effectiveness Evaluation include the following:

- a) Assessment of program effectiveness in achieving permit requirements and measurable objectives.
- b) Assessment of program effectiveness in protecting and restoring water quality and beneficial uses.
- c) Identification of quantifiable effectiveness measurements for each BMP, including measurements that link BMP implementation with improvement of water quality and beneficial use conditions.
- d) Identification of how the Department will propose revisions to the SWMP to optimize BMP effectiveness when effectiveness assessments identify BMPs or programs that are ineffective or need improvement.

² California Stormwater Quality Association. *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs*. February 2015

In future Annual Reports, Caltrans will functionally update its program effectiveness evaluation approach for consistency with the 2012 Permit requirements, the SWMP (once approved), and the 2015 CASQA Guidance Manual.

The results of the 2014-2015 effectiveness evaluation are reported in Appendix N.

15 Measurable Objectives

Caltrans developed its Draft SWMP during the reporting period to comply with the Caltrans NPDES Permit requirements, including Measurable Objectives. Upon approval of the Draft SWMP by the State Board, Caltrans will proceed with implementing the necessary tasks and activities to achieve the Measurable Objectives. In the future, Caltrans will report on the status of the Measurable Objectives during each reporting period in this section.

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Annual Report

On October 1, 2014, Caltrans submitted the Annual Report for the 2013-2014 reporting period. It addressed the reporting requirements for the 2012 Caltrans NPDES Permit and Draft SWMP.

This 2014-2015 Annual Report was prepared to meet the Caltrans NPDES Permit reporting requirements. Table 1 briefly summarizes the annual reporting requirements and the Annual Report section in which they are discussed. The Annual Report, and its corresponding appendices and attachments (on the enclosed CD), describes the activities completed by Caltrans and contains the supporting data to meet the annual reporting requirements.

District Work Plans

In October 2013, the Districts submitted District Work Plans (DWPs) describing the activities for the reporting period. During fiscal year 2014-2015, the Districts completed and worked on the activities they had planned for the fiscal year. See Appendix M on the CD for a summary of DWP activities.

The DWPs, published in October 2014, summarize the activities that each of the 12 Caltrans Districts plan to perform during the next reporting period (fiscal year 2015-2016) to comply with the Caltrans NPDES Permit and the Draft SWMP.

Total Maximum Daily Load Status Review Report

Caltrans continued its efforts to reduce pollutant discharges to receiving waters through ongoing compliance activities and by implementing a consistent statewide approach to address Caltrans NPDES Permit Attachment IV requirements for the named pollutants. To meet the TMDL and special requirements identified within Attachment IV to achieve 1,650 compliance units per year, Caltrans implemented a combination of strategies, including capital construction, improvement of current institutional practices, and participation in regional control efforts. In addition, Caltrans maximized opportunities to incorporate treatment control devices as part of capital roadway improvement projects, or standalone retrofit projects. The TMDL Status Review Report provides the details and accounting of achieving the 1,650 compliance units per year requirement. More information is located on the CD as an attachment.

Non-Approved BMP Implementation

Installation of non-approved BMPs did not occur in the Districts during the reporting period.

Monitoring Results Report

The evaluation of monitoring results is ongoing for the 2014–15 season and will be presented in the Monitoring Results Report.

As mentioned in Section 3, Caltrans conducted monitoring at 104 Tier 1 sites, including 86 ASBS sites, and 18 TMDL sites. The purpose of the ASBS monitoring is to assess if Caltrans discharges are compromising natural ocean water quality. Comparisons between (1) the natural water quality values (also referred to as the 85th percentile threshold values) and Caltrans ocean receiving water values and (2) pre-storm and during-storm ocean receiving water values are used to assess compliance.

The natural water quality values are assigned on a regional basis: Northern California, Central California, and Southern California regions. The natural water quality values for the Northern California and Central California regions are preliminary. Monitoring will continue in the 2015–16 season to finalize those values. The natural water quality values for the Southern California region have been finalized. Caltrans discharges into two ASBS in the Southern California region: ASBS 24 and ASBS 33. Only one storm event has been successfully captured to date in ASBS 24; therefore, there are insufficient data to draw compliance conclusions. One exceedance has been identified, selenium, in ASBS 33. Caltrans is proposing to conduct source identification at the outfall associated with the ASBS 33 ORW site to assess control opportunities.

Caltrans has prepared a prioritized list of the reaches (highway segments) within the 84 TMDL watersheds and submitted it to the State Board. The list is pending final approval. Caltrans will conduct TMDL monitoring in accordance with the approved prioritization list. For the 2014–15 season, monitoring was conducted within the following TMDL watersheds:

Table 9: Fiscal Year 2014-2015 TMDL Monitoring Summary

TMDL Monitoring Project	Number of sites
Coachella Valley TMDL Monitoring	2
Chollas Creek TMDL Monitoring	3
Rainbow Creek TMDL Monitoring	1
Los Angeles River Metals TMDL	2
Malibu Creek and Lagoon Sedimentation and Nutrients TMDL Monitoring	1
Sacramento-San Joaquin River Delta Estuary Methyl Mercury TMDL Monitoring	2
San Diego Creek and Newport Bay Toxics Pollutants TMDL Monitoring	3
San Francisco Bay Mercury TMDL Monitoring	3
San Francisco Bay PCBs TMDL Monitoring	3
San Francisco Bay Area Urban Creeks Diazinon and Pesticides TMDL Monitoring	1

At the District 8 Coachella Valley TMDL monitoring locations Caltrans mobilized for sampling several storm events but no samples were collected because no flow was observed at the sampling stations. Visual and photographic logs were recorded.

Caltrans also entered, and continues to enter, into TMDL cooperative agreements throughout the State. For the 2014–15 season, the cooperative agreements covered activities in 14 TMDL watersheds. Some of these cooperative agreements include provisions to perform monitoring activities related to adopted TMDLs. Monitoring under cooperative agreements occurred at 183 sites.

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