



**Year-End Performance Report  
A Summary of Construction Compliance Reviews –  
July 1, 2017 – June 30, 2018**

**CTSW-RT-18-366.04.3**

**September 2018**

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<http://www.dot.ca.gov/hq/env/stormwater/index.htm>

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## Acronyms, Abbreviations and Definitions

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<b>ATS</b>	Active Treatment System
<b>BMP</b>	Best Management Practice
<b>Caltrans</b>	State of California, Department of Transportation
<b>Caltrans Statewide Permit</b>	National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit Waste Discharge Requirements (WDRs) for the State of California Department of Transportation (Order No. 2012-0011-DWQ, NPDES No. CAS000003)
<b>CCEP</b>	Construction Compliance Evaluation Plan
<b>CFR</b>	Code of Federal Regulations
<b>CGP</b>	Construction General Permit
<b>Construction Activity</b>	Any construction or demolition activity, clearing, grading, grubbing, excavation, or other activity that results in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.
<b>Construction Site</b>	Location where construction activity is performed.

<b>CWA</b>	Clean Water Act
<b>DCSWC</b>	District Construction Stormwater Coordinator
<b>DEA-WQP</b>	Division of Environmental Analysis - Water Quality Program
<b>Discharge</b>	When used without qualification, means the discharge of a pollutant
<b>Discharge of a pollutant</b>	The addition of any pollutant or combination of pollutants to waters of the United States from any point source, or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.
<b>DSA</b>	Disturbed Soil Area
<b>IQA</b>	Independent Quality Assurance (IQA). The independent third party conducts the IQA construction project reviews for the Caltrans Statewide Permit-required self-audit program.
<b>NAL</b>	Numeric Action Level
<b>Non-compliance</b>	Failure to meet any field and administrative requirement of the SWMP or Caltrans Statewide Permit or to meet any applicable water quality standard. This includes failure to install required BMPs or conduct required monitoring or maintenance. It also includes discharges or prohibited non-storm water that do not meet the definition of emergency incidents. It does not include determinations by Caltrans or a RWQCB Executive Officer that a discharge is causing or contributing to exceedances of an applicable water quality standard.
<b>Non-stormwater</b>	Discharges that are not induced by precipitation events and are not composed entirely of stormwater. These discharges include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, concrete washout water, paint wash water, irrigation water, pipe testing water, lawn watering overspray, hydrant flushing, and firefighting activities.
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>PLACS</b>	Permits, Licenses, Agreements, Certifications and Approvals
<b>PCC</b>	Portland Cement Concrete
<b>Pollutant</b>	Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended [42 U.S.C. 2011 et seq.]), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water (Permit Attach. VII).
<b>QA</b>	Quality Assurance
<b>QSD</b>	Qualified Stormwater Developer

<b>QSP</b>	Qualified Stormwater Practitioner
<b>RE</b>	Resident Engineer
<b>Review Report</b>	Construction Project Site Stormwater Compliance Review Report used in the self-audit program for construction activities.
<b>RWQCB</b>	Regional Water Quality Control Board
<b>Sediment</b>	Soil, sand, and minerals washed from land into water, usually after rain.
<b>Sensitive water body</b>	As defined in the CCEP, includes water bodies listed for Areas of Special Biological Significance in the Permit Attachment III and listed water bodies pursuant to CWA Section 303(d).
<b>SMARTS</b>	Storm Water Multiple Application and Record Tracking System
<b>Stormwater</b>	Stormwater runoff, snowmelt runoff, and surface runoff and drainage, as defined in 40 CFR 122.26.b.13.
<b>Surface water</b>	Collectively includes Waters of the State, Waters of the U.S. and sensitive water bodies.
<b>SWMP</b>	Storm Water Management Plan
<b>SWPPP</b>	Stormwater Pollution Prevention Plan
<b>SWRCB</b>	State Water Resources Control Board
<b>TMDL</b>	Total maximum daily load
<b>U.S.</b>	United States
<b>U.S.C.</b>	United States Code
<b>U.S. EPA</b>	United States Environmental Protection Agency
<b>U.S. EPA R-9 A.O</b>	United States Environmental Protection Agency – Region 9 Administrative Order
<b>Waters of the State</b>	Any surface water or groundwater, including saline waters, within boundaries of the state as defined in California Water Code §13050(e).
<b>Waters of the U.S.</b>	All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide. Waters of the United States [as defined in 40 CFR §230.3(s)] include all interstate waters and intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use of which would affect or could affect interstate or foreign commerce. The definition also applies to tributaries of the aforementioned waters. See 40 CFR §122.2 for the complete definition, which is hereby incorporated by reference.
<b>WDRs</b>	Waste Discharge Requirements. “NPDES Permits” as used in the federal Clean Water Act (33 U.S.C. §1251 et seq.; Permit Finding 4).
<b>WPCM</b>	Water Pollution Control Manager
<b>YEPR</b>	Year-End Performance Report

# 1.0 Introduction

This Year-End Performance Report – September 2018 (2018 YEPR) summarizes the Independent Quality Assurance (IQA) reviews conducted between July 1, 2017 and June 30, 2018 by the independent quality assurance portion of the self-audit program implemented by the State of California, Department of Transportation (Caltrans) for evaluating construction activities at construction sites. This document reports the data necessary to ascertain whether the appropriate level of stormwater pollution control was achieved at Caltrans construction projects statewide during the 2017-2018 reporting period.

In July 2008, Caltrans adopted the *Construction Compliance Evaluation Plan CTSW-PL-08-999.54.1* (2008 CCEP). Since the 2008 CCEP was implemented, Caltrans has modified the construction compliance evaluation procedures to be responsive to subsequent regulatory drivers, including the California State Water Resources Control Board (SWRCB) Order No. 2012-0011-DWQ, NPDES No. CAS000003, Statewide Storm Water Permit Waste Discharge Requirements for State of California Department of Transportation (Caltrans Statewide Permit) and Order No. 2010-0014-DWQ, NPDES No. CAS000002, General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (CGP).

In September 2017, Caltrans adopted and SWRCB approved a further revised approach to assess the appropriate level of stormwater pollution control at construction projects. This revised approach is described in the *Stormwater Program - Construction Compliance Evaluation Plan CTSW-PL-17-999* (CCEP). This 2018 YEPR reports the data gathered during IQA Reviews at Caltrans construction projects statewide during the reporting period.

## 2.0 Elements of Construction Compliance Evaluation Plan

Section 2.0 presents an overview of the CCEP. This section is organized by presenting the following:

- A summary of the CCEP process;
- Project selection and ranking process;
- A summary of the IQA Review Process; and
- Elements of the Project Stormwater Review Report (Review Report).

### 2.1 CCEP Process

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, and adding new projects quarterly using Storm Water Multiple Applications and Report Tracking System (SMARTS);
- Developing a master schedule of projects for review during the fiscal year;
- Providing 24-hour notification of an IQA review to the resident engineer (RE), Senior RE, Construction Manager, and District Construction Stormwater Coordinator (DCSWC);
- Conducting the site and documentation review;
- Completing the Review Report;
- Distributing the Review Report via email to the RE, Senior RE, Construction Manager, and DCSWC;
- Tracking the Corrective Action process.

The corrective actions are not an element of the third-party consultant IQA review process. As described in Construction Procedure Directive 15-1 dated March 25, 2015, the RE is responsible for coordinating with the DCSWC in implementing and documenting corrective actions.

The CCEP process also provides feedback procedures and a method for program improvement by reporting the following:

- Best management practice (BMP) implementation based upon the observed trends detected in the data collected from IQA reviews; and
- The adequacy of guidance documents and contract documents.

The above reporting facilitates program improvements, including Storm Water Management Plan (SWMP) improvements, training, research, updates to guidance documents, updates to specifications and updates to the CCEP.

### 2.2 Project Selection and Ranking Process

The Division of Environmental Analysis - Water Quality Program (DEA-WQP) compiled and maintained a comprehensive list of construction projects by drawing from active construction projects presented in SMARTS and cross checked this list with the Headquarters Division of Construction's statement of ongoing construction projects.

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). Moving forward, the DEA-WQP plans to analyze historical data to also assist in project selection and prioritizing projects to review.

## 2.3 IQA Review Process

The third-party consultant conducted the following activities during the reporting period between July 1, 2017 and June 30, 2018:

- Assisted in selection of construction projects for IQA Reviews;
- Assisted with the 24-hour notification to required Caltrans staff;
- Conducted site and documentation reviews;
- Observed the conditions of stormwater pollution prevention measures implemented at the construction site and recorded instances where BMPs were not meeting contract document requirements, applicable CGP requirements, or applicable permits, licenses, agreements, and certifications, and approvals (PLACS) relative to stormwater BMP requirements;
- Provided a verbal debriefing of findings to the RE or the RE’s representative and followed up with a written and signed Review Report delivered to the RE and other Caltrans staff within 24 hours of the site review; and
- Collected all electronic Review Reports for future data processing and storage.

## 2.4 Elements of the Review Report

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;
- PLACS and the Lahontan Regional Water Quality Control Board (RWQCB) Permit, as applicable; and
- Caltrans 2010 Standard Specifications and 2010 Standard Plans.

The Review Report documents the following construction project information and observations:

- IQA reviewer, review date, and review participants;
- Caltrans contract number, County-Route-Post Mile, project name, and project description;
- Name and contact number for the RE and name of the Water Pollution Control Manager (WPCM);
- Weather conditions, risk level, receiving water body, and acreage of active and inactive DSAs; and
- PLACS.

The Review Report documents the information concerning administrative findings and field BMP findings. See Section 3.0, IQA Review Results, for further details.



## 3.0 IQA Review Results

This section presents the IQA review findings as observed at Caltrans construction projects from July 1, 2017 to June 30, 2018. The total numbers of findings including total administrative and field BMP findings are presented first, followed with a summary of findings by administrative and field BMP categories, and lastly more detailed information concerning findings by field BMP types and IQA reviewer observations.

### 3.1 Total Numbers of Findings

Table 3-1 presents a summary of the total numbers of IQA review findings. The total numbers are further divided into totals of administrative and field BMP findings. Some districts were visited more than others because of the number of available projects and the project ranking process. Items of note in the following table are as follows:

- 180 IQA Reviews were conducted in the reporting period
- Construction projects were visited in all districts
- Very few administrative findings were noted during IQA Reviews
- Total findings (Administrative and Field BMPs) averaged approximately 9 per IQA review which is an improvement from approximately 10 BMP findings per IQA review during the 2016-2017 reporting period

Table 3-1 Summary of Findings				
District	Number of Reviews	Number of Findings		
		Total	Administrative	Field BMPs
1	11	27	7	20
2	6	30	5	25
3	7	86	3	83
4	31	411	21	390
5	14	181	8	173
6	9	62	6	56
7	47	466	22	444
8	12	120	10	110
9	2	0	0	0
10	7	69	3	66
11	24	89	6	83
12	10	43	8	35
<b>Total</b>	<b>180</b>	<b>1,584</b>	<b>99</b>	<b>1,485</b>

### 3.2 Administrative Findings

Table 3-2 presents the summary of administrative findings separated into several categories. The definitions of each category are as follows:

- **Plans and Permits:** Queries the IQA reviewer with two questions - whether the SWPPP is located on site and was it developed by a Qualified Stormwater Developer (QSD).
- **Training:** Queries the IQA reviewer with two questions - whether the WPCM is certified as a QSD (or Qualified Stormwater Practitioner (QSP) for WPCP construction projects) and is the contractor conducting regular training with adequate documentation.
- **SMARTS:** Queries the IQA reviewer with one question - whether appropriate annual reporting is uploaded into SMARTS.
- **Active Treatment System (ATS):** Queries the IQA reviewer with one question - for construction projects that employ an ATS, are all the required procedures of the ATS followed.
- **Construction Site Monitoring:** Queries the IQA reviewer with three questions - whether all of the site monitoring has been completed, and if a Numeric Action Level (NAL) has been exceeded, has a report been developed and reported to the SWRCB.
- **Tahoe Permit:** Queries the IQA reviewer with three questions for projects within the Lake Tahoe Permit: has a Restoration Monitoring Plan been developed, are waste prohibition exemptions on file (100-year floodplain), and whether all analytical information been uploaded into SMARTS within 5 days.

Items of note in the following table are as follows:

- No findings were encountered for Administrative categories related to the Tahoe Permit, SMARTS, or ATS.
- Findings in the Training category were encountered most frequently of all administrative categories.
- Construction Site Monitoring was mostly implemented at reviewed sites. The IQA reviewer at 38 IQA Reviews (21.1%) of the construction projects (four projects were found to have multiple Construction Site Monitoring findings) encountered construction site monitoring findings.

Table 3-2 Summary of Administrative Findings								
District	Number of Sites Reviewed	Total Findings	Administrative Category					
			Plans and Permits	Training	SMARTS	Active Treatment System	Construction Site Monitoring	Tahoe Permit
1	11	7	0	3	0	0	4	0
2	6	5	1	4	0	0	0	0
3	7	3	0	2	0	0	1	0
4	31	21	0	15	0	0	6	0
5	14	8	0	5	0	0	3	0
6	9	6	0	5	0	0	1	0
7	47	22	1	8	0	0	13	0
8	12	10	0	4	0	0	6	0
9	2	0	0	0	0	0	0	0
10	7	3	0	2	0	0	1	0
11	24	6	0	3	0	0	3	0
12	10	8	0	4	0	0	4	0
<b>Total</b>	<b>180</b>	<b>99</b>	<b>2</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>42</b>	<b>0</b>

### 3.3 Field BMP Category Findings

Table 3-3 presents a summary of the field BMP findings separated into the six standard field BMP categories as follows:

- **Soil Stabilization:** Includes temporary cover of DSAs and temporary run-on and run-through control.
- **Sediment Control:** Includes temporary perimeter control, temporary face of slope controls, temporary check dams, and temporary drain inlet protection.
- **Tracking Control:** Includes stabilized construction entrances and construction roadways.
- **Wind Erosion Control:** Includes the control of dust throughout the construction site.
- **Non-Stormwater Control:** Includes dewatering, paving and sawcutting operations, equipment cleaning, fueling, and maintenance, pile driving operations, concrete finishing activities, and working near and over water.
- **Materials and Waste Management Control:** Includes material storage and use, stockpile management, spill prevention and control, and waste management including solid, hazardous, contaminated soil, concrete, sanitary, and liquid wastes.

Items of note in the following table are as follows:

- The field BMP category of Materials and Waste Management Control constituted 53.7% of the total findings.
- The field BMP category of Sediment Control constituted 24.4% of the total findings.
- The remaining, combined field BMP categories of Soil Stabilization, Tracking Control, and Non-Stormwater Control constituted 21.9% of the total findings.

Table 3-3 Summary of Field Category BMP Findings								
District	Number of Sites Reviewed	Total Findings	Field BMP Category					
			Soil Stabilization	Sediment Control	Tracking Control	Wind Erosion Control	Non-Stormwater Control	Materials & Waste Management
1	11	20	3	7	0	0	1	9
2	6	25	0	8	1	0	0	16
3	7	83	13	24	7	1	9	29
4	31	390	26	121	28	2	15	198
5	14	173	15	44	17	0	12	85
6	9	56	2	7	4	0	2	41
7	47	444	14	87	62	8	13	260
8	12	110	10	20	0	2	6	72
9	2	0	0	0	0	0	0	0
10	7	66	7	17	6	1	5	30
11	24	83	6	17	7	0	9	44
12	10	35	7	10	5	0	0	13
<b>Total</b>	<b>180</b>	<b>1485</b>	<b>103</b>	<b>362</b>	<b>137</b>	<b>14</b>	<b>72</b>	<b>797</b>

### 3.4 Field BMP Findings by Field BMP Type and IQA Reviewer Observation

Table 3-4 presents a summary of the field BMP findings by field BMP type.

Each field BMP type has standards that regulate the correct application (e.g., is the BMP implemented or implemented as intended?), the correct installation or placement, utilizing the correct materials, and the proper maintenance. The following table indicates the number of findings for each field BMP type that did not meet one of these listed standards.

<b>Table 3-4 Findings by Field BMP Type</b>			
<b>BMP Category</b>	<b>BMP Type</b>	<b>BMP Name</b>	<b>Number of Findings</b>
Soil Stabilization	SS-3	Hydraulic Mulch	44
	SS-4	Hydroseeding	3
	SS-5	Soil Binder	5
	SS-6	Straw Mulch	3
	SS-7	Geotextiles, Mats, Plastic Covers and Erosion Control Blankets	29
	SS-9	Earth Dikes/Drainage Swales and Lined Ditches	5
	SS-10	Outlet Protection/Velocity Dissipation Devices	1
	SS-11	Slope Drains	13
Sediment Control	SC-1	Silt Fence	90
	SC-2	Sediment Basin	0
	SC-4	Check Dams	16
	SC-5	Fiber Rolls	134
	SC-6	Gravel Bag Berm	3
	SC-7	Street Sweeping and Vacuuming	58
	SC-9	Temporary Straw Bale Barrier	0
	SC-10	Storm Drain Inlet Protection	61
Tracking Control	TC-1	Stabilized Construction Entrance	137
	TC-2	Stabilized Construction Roadway	0
Wind Erosion Control	WE-1	Wind Erosion Control	14

Non-Stormwater Control	NS-1	Water Conservation Practices	2
	NS-2	Dewatering Operations	0
	NS-3	Paving and Grinding Operations	26
	NS-6	Illicit Connection/Illegal Discharge	3
	NS-8	Vehicle and Equipment Cleaning	0
	NS-9	Vehicle and Equipment Fueling	3
	NS-10	Vehicle and Equipment Maintenance	20
	NS-11	Pile Driving Operations	2
	NS-12	Concrete Curing	1
	NS-13	Materials and Equipment Use Over Water	5
	NS-14	Concrete Finishing	10
	NS-15	Structure Demolition Adjacent to Water	0
	Materials and Waste Management	WM-1	Material Delivery & Storage
WM-2		Material Use	4
WM-3		Stockpile Management	135
WM-4		Spill Prevention and Control	25
WM-5		Solid Waste Management	354
WM-6		Hazardous Waste Management	8
WM-7		Contaminated Soil Management	1
WM-8		Concrete Waste Management	113
WM-9		Sanitary/Septic Waste Management	4
WM-10		Liquid Waste Management	1

Figure 3-1 presents Table 3-4 information presented as a bar graph with the field BMP with highest number of findings on the far left and in descending order of findings towards the right for the other field BMPs. For illustrative purposes BMP types that had four or fewer total finding are not shown.

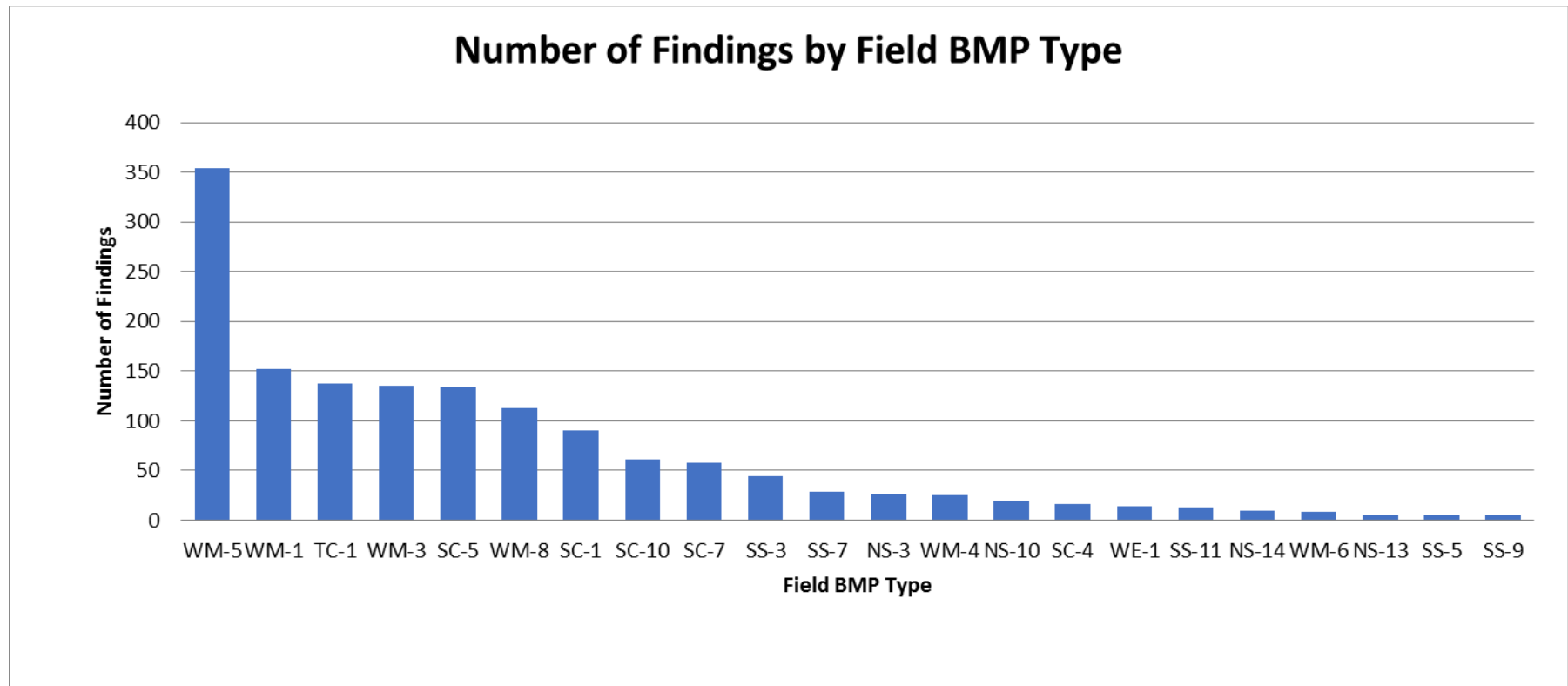


Figure 3-1 Number of Findings by Field BMP Type in Descending Order (Greater Than Four Findings)

The IQA reviewer includes photographic documentation of each field finding which includes a description of the observation. IQA reviewer observations arch over various BMP types so that one observation can represent different BMP types (e.g., missing perimeter controls can apply to SC-1, SC-5, SC-6, and SC-9). Conversely, one BMP type can have several different observations (e.g., SC-1 can be observed as missing perimeter controls, perimeter controls not maintained, or perimeter controls improperly located). Table 3-5 presents the number of findings based on IQA reviewer observations categorized into appropriate BMP type(s).

<b>Table 3-5 Findings by IQA Reviewer Observation</b>			
<b>BMP Category</b>	<b>BMP Type</b>	<b>IQA Reviewer Observation</b>	<b>Number of Findings</b>
Soil Stabilization	SS-3, SS-4, SS-5 & SS-7	Inactive DSA Missing Soil Cover	44
		Soil Cover Not Maintained	24
		Active DSA Missing Soil Cover (During Recent Rain Event)	7
		Soil Cover Improperly Applied/Installed	8
	SS-9, SS-10, SS-11 & SC-4	Run-on and/or Run-through is Mismanaged	22
Sediment Control	SC-1, SC-5, SC-6 & SC-9	Perimeter Controls Not Maintained	116
		DSA Missing Perimeter Controls	54
		Perimeter Controls Improperly Located and/or Installed	36
	SC-4	Check Dams Improperly Installed and/or Not Maintained	13
	SC-4, SC-6 & SC-10	Gravel Bags Made of Wrong Material	1
	SC-5 & SC-6	Inactive DSA Missing Controls on Face of Slope	20
	SC-7	Paved Areas Not Swept Promptly	53
		Improper Sweeper Operations	5
	SC-10	Drain Inlet Protection Not Maintained	24
		Drain Inlet Protection Improperly Installed or Made of Wrong Materials	21
		Missing Drain Inlet Protection	17

<b>Table 3-5 Findings by IQA Reviewer Observation</b>			
<b>BMP Category</b>	<b>BMP Type</b>	<b>IQA Reviewer Observation</b>	<b>Number of Findings</b>
Tracking Control	TC-1	Stabilized Entrance Not Maintained	44
		Construction Access Missing Stabilized Entrance	45
		Stabilized Entrance Improperly Installed or Made of Wrong Materials	22
		Construction Traffic Not Limited to Stabilized Exit	26
Wind Erosion Control	WE-1	Sediment Not Controlled for Wind	14
Non-Stormwater Control	NS-1	Non-Stormwater Mismanaged	2
	NS-3	Improper Paving, Grinding, or Sawcutting Controls	13
	NS-3 & NS-11	Paving or Pile Driving Equipment Not Stored on Plastic	13
	NS-6	Evidence of Illegal Dumping	3
	NA	Stored Vehicles or Equipment Without Proper BMPs	5
	NS-8, NS-9 & NS-10	Improper Vehicle Cleaning, Fueling, or Maintenance	7
	NS-10	Leaking Equipment Should Be Repaired or Removed	13
	NS-12	Improper Concrete Curing	1
	NS-13	Improper Containment While Working Over Water	5
	NS-14	Improper Sandblasting or Concrete Finishing	10



Table 3-5 Findings by IQA Reviewer Observation			
BMP Category	BMP Type	IQA Reviewer Observation	Number of Findings
Materials and Waste Management	WM-1	Liquid Materials and/or Wastes Not in Secondary Containment	99
		Stored Materials Mismanaged (Without Pallet and/or Cover, Spilled, and/or Not Labeled)	46
	WM-2	Secondary Containment Improperly Constructed/Insufficient, Not Covered During a Rain Event, or Not Maintained	13
		Material Use Mismanaged	4
	WM-3	Stockpile Missing Cover and/or Linear Barrier	77
		Stockpile Controls Improperly Installed or Improper Materials Used	11
		Stockpile Protection Not Maintained	12
		Cold Mix Stockpile Missing Cover, Impervious Under-liner, and/or Linear Barrier	22
		Treated Wood Missing Under-Pallet and/or Impervious Cover	8
		Stockpile Mislocated Near Concentrated Flows or Inlets	4
	WM-4	Liquid Hazardous Materials Spilled/Leaked onto Ground Surface	19
	WM-5	Trash and Debris Accumulated On-site	298
		Dumpster Missing Cover at Day's End and/or During Rain Event	36
		Trash Container Exceeded Capacity	17
		Trash Container Not Watertight	3
	WM-6	Hazardous Waste Mismanaged	8
	WM-7	Contaminated Soil Mismanaged	1
	WM-8	Concrete Operation Waste Not Collected Promptly	86
		Concrete Washout Improperly Constructed/ Insufficient, Mislocated, and/or Not Maintained	28
WM-9	Sanitary/Septic Waste Mismanaged and/or Facility Mislocated	4	
WM-10	Liquid Waste Mismanaged	1	

Table 3.6 presents the top ten numbers of findings by field BMP type in FY 2017/2018. An item to note concerning Table 3-6 is that the top ten field BMP types with the most findings totaled 1,278 which constituted 86.1% of total findings. Although the order has changed slightly, all field BMP types (from 180 IQA Reviews) in FY 2017/2018 were in the top 10 BMP types (from 242 IQA Reviews) in FY 2016/2017 and (from 236 IQA Reviews) in FY 2015/2016. See Section 4 of this report for more information concerning trends. The number of findings along with the previous ranking for FY 2017/2018, FY 2016/2017 and FY 2015/2016 are included in the table.

<b>Table 3-6 Top 10 Number of Findings by Field BMP Type</b>			
<b>Field BMP Type</b>	<b>Number of Findings (Rank)</b>		
	<b>FY 17/18</b>	<b>FY 16/17</b>	<b>FY 15/16</b>
1. WM-5, Solid Waste Management	<b>354</b>	561 (1)	495 (1)
2. WM-1, Material Delivery and Storage	<b>152</b>	189 (4)	184 (4)
3. TC-1, Stabilized Construction Entrance	<b>137</b>	149 (5)	111 (8)
4. WM-3, Stockpile Management	<b>135</b>	263 (2)	285 (2)
5. SC-5, Fiber Rolls	<b>134</b>	201 (3)	193 (3)
6. WM-8, Concrete Waste Management	<b>113</b>	125 (8)	83 (10)
7. SC-1, Silt Fence	<b>90</b>	145 (6)	145 (6)
8. SC-10, Storm Drain Inlet Protection	<b>61</b>	97 (9)	174 (5)
9. SC-7, Street Sweeping and Vacuuming	<b>58</b>	93 (10)	93 (9)
10. SS-3, Hydraulic Mulch	<b>44</b>	138 (7)	140 (7)
Top 10 Totals	<b>1,278</b>	<b>1,961<sup>1</sup></b>	<b>1,903<sup>1</sup></b>

<sup>1</sup> The “Top 10 Totals” for each column represent the actual top 10 findings for the specified fiscal year; therefore, these column totals may not equate to the sum of the findings indicated in each column above.

Table 3.7 presents the top ten numbers of findings by IQA reviewer observation. An item to note concerning Table 3-7 is that the top ten IQA reviewer observations with the most findings totaled 908 which constituted 61.1% of total findings. Also, note that IQA Reviewer Observations ranked eighth and ninth were never ranked in the top ten until the FY 17/18. As in the previous table, the top 10 IQA reviewer observations are very similar in FY 2017/2018, FY 2016/2017, and FY 2015/2016. The number of findings and the ranking order from FY 2017/2018, FY 2016/2017, and FY 2015/2016 are included in the table.

<b>Table 3-7 Top 10 Number of Findings by IQA Reviewer Observation</b>			
<b>IQA Reviewer Observation</b>	<b>Number of Findings (Rank)</b>		
	<b>FY 17/18</b>	<b>FY 16/17</b>	<b>FY 15/16</b>
1. Trash and Debris Accumulated On-site	<b>298</b>	479 (1)	409 (1)
2. Perimeter Controls Not Maintained	<b>116</b>	197 (2)	261 (2)
3. Liquid Materials and/or Wastes Not in Secondary Containment	<b>99</b>	106 (5)	108 (4)
4. Concrete Operation Waste Not Collected Promptly	<b>86</b>	63 (10)	78 (9)
5. Stockpile Missing Cover and/or Linear Barrier	<b>77</b>	151 (3)	124 (3)
6. DSA Missing Perimeter Controls	<b>54</b>	90 (6)	100 (5)
7. Paved Areas Not Swept Promptly	<b>53</b>	87 (7)	91 (7)
8. Stored Materials Mismanaged	<b>46</b>	39 (17)	33 (22)
9. Construction Access Missing Stabilized Entrance	<b>45</b>	51 (12)	40 (15)
10. Inactive DSA Missing Soil Cover	<b>44 (T)</b>	109 (4)	99 (6)
Stabilized Entrance Not Maintained		69 (8)	47 (12)
Top 10 Totals		<b>908</b>	<b>1,416<sup>1</sup></b>

<sup>1</sup> The “Top 10 Totals” for each column represent the actual top 10 findings for the specified fiscal year; therefore, these column totals may not equate to the sum of the findings indicated in each column above.

Further definitions and examples of the top 10 findings listed in Table 3-7 above are as follows:

1. Trash and Debris Accumulated On-site - Findings from this item generally included accumulated construction waste that was gathered somewhere on the construction site but was not placed in a dumpster. Evidence indicated that this trash and debris had been at this location longer than a week.
2. Perimeter Controls Need Maintenance - Findings from this item generally included silt fence that was dilapidated or otherwise sagging, torn, and/or unraveled, fiber rolls that were torn and/or unraveled, gravel bag berms that were dilapidated, or silt fence, fiber rolls or gravel bag berms that had accumulated sediment that exceeded one-third the height of the barrier.
3. Liquid Materials or Wastes Not in Secondary Containment - Findings from this item generally included liquid materials, wastes, and/or fuels for equipment that were not properly stored in secondary containment.
4. Concrete Operation Waste Not Collected Promptly - Findings from this item generally included Portland Cement Concrete (PCC) operation waste not collected promptly. This finding was noted whenever PCC waste (that was not from grinding, grooving, or sawcutting) was noticed on the ground.

5. Stockpile Without Cover and/or Linear Barrier - Findings from this item generally included inactive concrete rubble waste, aggregate materials, landscape materials, and/or soil stockpiles that were not covered and/or surrounded by a linear barrier.
6. DSA Missing Perimeter Controls - Findings from this item generally included construction areas which created disturbed soil in which no perimeter controls (e.g., silt fence, fiber rolls, or gravel bag berm) were in place. The DSAs were active or inactive.
7. Paved Areas Not Swept Promptly - Sediment tracked onto paved surfaces within and/or outside of the construction area which was not swept up or otherwise removed within the 1 hour or 24-hour minimum time period as specified.
8. Stored Materials Mismanaged – Findings from this item generally included stored dry materials (cement bags, cold mix bags, blasting sand, package erosion control materials, etc.) that were not stored on a pallet and/or covered during non-working periods or during rain events, that had been opened and spilled onto the ground, or that were not properly labeled.
9. Construction Access Missing Stabilized Entrance – Findings from this item included points where construction traffic was exiting the construction site onto a paved surface outside of the construction area where no stabilized entrance was in place to control tracking.
10. Inactive DSA Missing Soil Cover - Findings from this item generally included construction areas which created disturbed soil and were left idle for more than fourteen days in which no soil cover (e.g., hydraulic mulch, hydroseed, soil binder, straw mulch, plastic cover/erosion control blanket, or wood mulch) was in place.

Stabilized Entrance BMP Not Maintained - Findings from this item generally included the accumulation of sediment and debris within the stabilized area of rock and/or the steel panel.

## 4.0 Trends

Table 4-1 presents the field BMP types from the 2016, 2017, and 2018 YEPRs that were associated with the highest number of findings in the reporting year. The field BMP types in Table 4-1 are in descending order, i.e., the field BMP types listed at the top had the most findings associated with them.

<b>Table 4-1 Comparison of the field BMP Types with the Most Findings (in descending order) between the 2016, 2017, and 2018 YEPRs</b>		
Field BMPs Types with the Most Associated Findings (in descending order)		
<b>2018 YEPR</b>	<b>2017 YEPR</b>	<b>2016 YEPR</b>
1. WM-5, Solid Waste Management	1. WM-5, Solid Waste Management	1. WM-5, Solid Waste Management
2. WM-1, Material Delivery and Storage	2. WM-3, Stockpile Management	2. SC-5, Fiber Rolls
3. TC-1, Stabilized Construction Entrance	3. SC-5, Fiber Rolls	3. WM-3, Stockpile Management
4. WM-3, Stockpile Management	4. WM-1, Material Delivery and Storage	4. WM-1, Material Storage and Delivery
5. SC-5, Fiber Rolls	5. TC-1, Stabilized Construction Entrance	5. SC-10, Storm Drain Inlet Protection
6. WM-8, Concrete Waste Management	6. SC-1, Silt Fence	6. SC-1, Silt Fence
7. SC-1, Silt Fence	7. SS-3, Hydraulic Mulch	7. WM-8, Concrete Waste Management
8. SC-10, Storm Drain Inlet Protection	8. SC-10, Storm Drain Inlet Protection	8. TC-1, Stabilized Construction Entrance
9. SC-7, Street Sweeping and Vacuuming	9. WM-8, Concrete Waste Management	9. SC-7, Street Sweeping and Vacuuming
10. SS-3, Hydraulic Mulch	10. SC-7, Street Sweeping and Vacuuming	10. SS-3, Hydraulic Mulch

These lists are almost an exact match, with all top 10 findings for field BMP types common between the three YEPRs. One could conclude from this brief analysis that the types of BMPs resulting in the most findings have not changed significantly between the 2016, 2017 and 2018 YEPRs. This conclusion was also the same for the 2015 YEPR.

Table 4-2 presents the administrative categories from the 2016, 2017, and 2018 YEPRs that were associated with the highest number of findings in the reporting year. The administrative categories in Table 4-2 are in descending order, i.e., the administrative categories listed at the top had the most findings associated with them.

<b>Table 4-2 Comparison of the Administrative Categories with the Most Findings (in descending order) between the 2016, 2017, and 2018 YEPRs</b>		
Administrative Categories with the Most Associated Findings (in descending order)		
<b>2018 YEPR</b>	<b>2017 YEPR</b>	<b>2016 YEPR</b>
1. Training	1. Training	1. Training
2. Construction Site Monitoring	2. Construction Site Monitoring	2. Construction Site Monitoring
3. Plans and Permits	3. Plans and Permits	3. Plans and Permits
4. SMARTS <sup>1</sup>	4. SMARTS	4. Active Treatment System
5. Active Treatment System <sup>1</sup>	5. Active Treatment System	5. SMARTS <sup>1</sup>
6. Tahoe Permit <sup>1</sup>	6. Tahoe Permit <sup>1</sup>	6. Tahoe Permit <sup>1</sup>

<sup>1</sup> Categories with zero (0) findings during the respective year-end performance report.

These lists are essentially a match with only a minor order difference of the SMARTS and active treatment system administrative categories between 2016 YEPR and both the 2017 and 2018 YEPRs. One could conclude from this brief analysis that the administrative categories resulting in the most findings have not changed significantly between the 2016, 2017 and 2018 YEPRs.

## 5.0 Conclusion

This 2018 YEPR summarizes construction project IQA reviews conducted between July 1, 2017 and June 30, 2018 by the independent assurance portion of the self-audit program implemented by Caltrans. These IQA reviews were conducted in accordance with the CCEP. The conclusions drawn from these reviews and are as follows:

- The 180 reviews resulted in 99 administrative and 1,485 field BMP findings, for a total of 1,584 findings.
- Very few administrative findings were noted during the IQA reviews, averaging less than one per IQA review. The category with the most administrative findings was training (55.5% of the total administrative findings).
- Field BMP findings at IQA reviews averaged approximately eight per review. The BMP categories with the most field BMP findings were Materials and Waste Management Control (53.7% of the total BMP findings) and Sediment Control (24.4% of the total BMP findings).
- The four field BMP types that had the most findings, in descending order, were 1) Solid Waste Management, 2) Material Delivery and Storage, 3) Stabilized Construction Entrance, and 4) Stockpile Management.
- The four most common field observations, in descending order, were 1) Trash and Debris Accumulated on Site, 2) Perimeter Controls Not Maintained, 3) Liquid Materials and/or Wastes Not in Secondary Containment, and 4) Concrete Operation Waste Not Collected Promptly.
- In general, the types and categories of findings were consistent with those found in the previous three years of the Self-Audit Program.