# Year-End Performance Report
# A Summary of Construction Compliance Reviews – July 1, 2012 – June 30, 2013

## CTSW-RT-13-299.01.1

**September 2013**

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| | |
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| ACCRP | Annual Construction Compliance Review Plan |
| BMP | Best Management Practice |
| CCEP | Construction Compliance Evaluation Plan |
| CGP | Construction General Permit |
| CPSRA | Construction Project Stormwater Review Application |
| CPSRF | Construction Project Stormwater Review Form |
| DCSWC | District Construction Stormwater Coordinator |
| Department | California Department of Transportation |
| DSA | Disturbed Soil Area |
| IQA | Independent Quality Assurance |
| NAL | Numeric action level |
| NEL | Numeric effluent limit |
| NPDES | National Pollutant Discharge Elimination System |
| OSPI | Office of Stormwater Program Implementation |
| QA | Quality Assurance |
| QC | Quality Control |
| RE | Resident Engineer |
| REAP | Rain Event Action Plan |
| RWQCB | Regional Water Quality Control Board |
| SWMP | Stormwater Management Plan |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| WPCM | Water Pollution Control Manager |
| WPCP | Water Pollution Control Program |
| YEPR | Year-End Performance Report |

# 1. Introduction

This *Year-End Performance Report – August 2013* (YEPR) summarizes the construction project stormwater compliance reviews conducted between July 1, 2012 and June 30, 2013. This document reports the level of stormwater pollution control compliance observed on Department of Transportation (Caltrans) construction projects statewide during this 2012-2013 reporting period and identifies Best Management Practice (BMP) implementation trends, improvements, and challenges noted during the year.

Since 1990, several construction project stormwater review plans have been developed to evaluate Caltrans projects for adequacy in implementing stormwater pollution prevention measures. The Annual Construction Compliance Review Plan (ACCRP) was adopted in August 2003 and later revised in August 2005. The ACCRP was prepared to comply with the requirements of the 1999 Caltrans National Pollutant Discharge Elimination System (NPDES) permit (Order No 99-06-DWQ, CAS000003). In July 2008, the *Construction Compliance Evaluation Plan (CCEP) CTSW-PL-08-999.54.1* was adopted, superseding the ACCRP. In July 2008, Caltrans began using the July 2008 CCEP statewide to conduct project reviews. However, since the 2008 CCEP was implemented, Caltrans has been modifying 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 NPDES Permit) and the General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Order No. 2010-0014-DWQ, NPDES No. CAS000002 (CGP). These modified procedures will be documented in a revised 2013 CCEP document.

The July 2008 CCEP describes the activities implemented by Caltrans for evaluating construction project stormwater compliance with the Caltrans Statewide NPDES Permit, Caltrans guidance documents and the CGP. This compliance review results generated by the CCEP program are designed to monitor the level of compliance in the field. The YEPR presents the review data and evaluates trends. The purpose of the CCEP is to describe an effective procedure for evaluating Caltrans' stormwater program in accordance with: 1) Caltrans' statewide Stormwater Management Plan (SWMP) dated May 2003 (Section 14, "Program Evaluation"), and 2) The Self-Audit requirements of the Caltrans Statewide NPDES Permit, Provision E.3.M, "Program Evaluation".

This Year-End Performance Report presents an overview of the July 2008 CCEP, along with the changes to the CCEP implemented in 2012-2013 in Section 2. Section 3 presents the overall alpha-numeric ratings for all construction sites reviewed in 2012-2013 for BMP effectiveness (numeric) and contract administrative documentation (alpha). Section 4 presents a trend analysis of individual BMP effectiveness and contract administrative documentation compliance. Section 5 presents the Conclusions.

# 2. Elements of Construction Compliance Evaluation Plan

Section 2 presents an overview of the July 2008 CCEP and subsequent revisions. This section is organized by presenting the following:

- A summary of the July 2008 CCEP process;

- An overview of the Construction Project Stormwater Review Application (CPSRA), used by the field reviewers to compile review data;
- A description of the field procedures used to conduct construction site reviews;
- A summary of the alpha-numeric rating criteria;
- A description of the feedback and reporting of the data obtained by the CPSRA; and

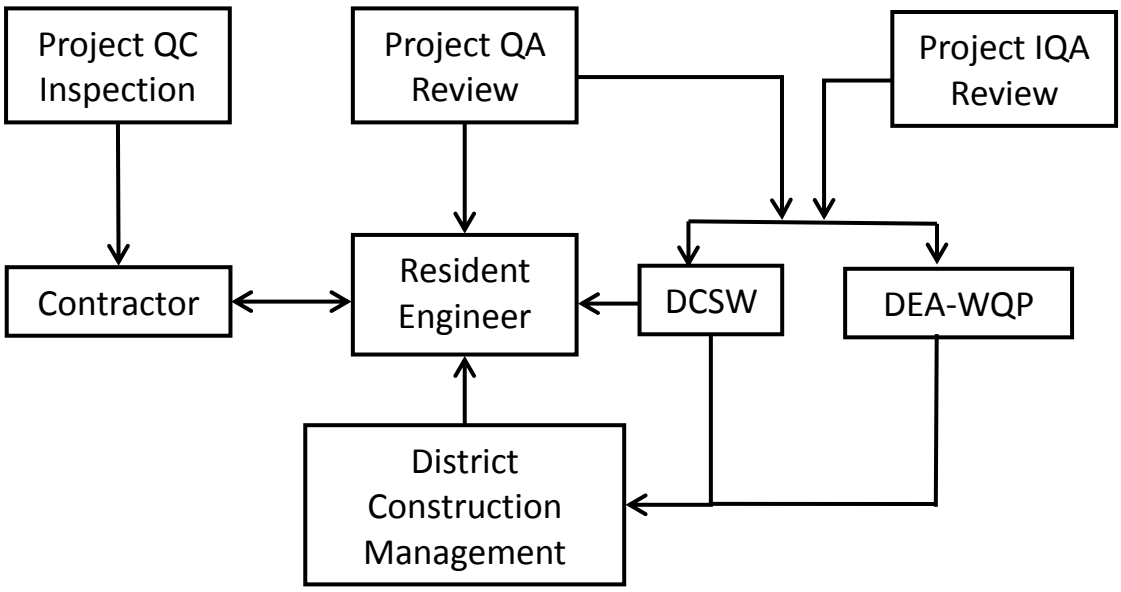
A summary of the changes implemented to the July 2008 CCEP to comply with subsequent regulatory drivers.

## July 2008 CCEP Process

The July 2008 CCEP process combines the following components in order to evaluate construction site compliance:

- A method to review stormwater BMPs and the potential threat to water quality;
- A review rating criteria sensitive to contract administrative documentation that includes compliance to Stormwater Pollution Prevention Plans (SWPPPs), Water Pollution Control Plans (WPCPs) forecasted storm events, contractor preparedness, required monitoring and reporting;
- A CPSRA to integrate the review data with a dual rating system that separates water quality compliance and stormwater contract administration; and
- An independent quality assurance process for the data collected from project reviews.

The construction site review process is presented in the diagram below. This YEPR only reports data from the Project QA Reviews.




Water Pollution Control Quality Process

QC: Quality Control is performed by the contractor.

QA: Quality Assurance is performed by the assistant resident engineer or construction inspector or by the district construction stormwater coordinator (DCSWC) or designee.

IQA: Independent Quality Assurance review is performed under the direction of Division of Environmental Analysis, Water Quality Program (DEA-WQP)

The CCEP process also provides feedback procedures and a process for program improvement to perform the following:

- Evaluate BMP adequacy based upon the observed trends detected in the data collected from project reviews.
- Evaluate contract administration processes based upon the observed trends detected in the data collected from project reviews.
- Identify sources and trends over time of observed deficient stormwater BMPs.

## 2.1 Construction Project Stormwater Review Application Overview

Construction project stormwater reviews are conducted utilizing a web-based computer program application, the CPSRA. The CPSRA program application structure is organized by a series of checklists that are used to evaluate the water quality field implementation (Numeric Rating) and the required stormwater contract administration documentation (Alpha Rating). Reviewers enter their observations into the application and the CPSRA summarizes these observations into a report. Based on the responses to the checklists, the program generates an overall alpha-numeric rating for the project. The CPSRA stores the general information about each construction site review, the responses to each checklist questions and the alpha-numeric rating in a database.

## 2.2 Field Procedures - Construction Project Stormwater Reviews

The DCSWC, or a designee, is responsible for arranging and conducting project Quality Assurance (QA) compliance reviews.

The items evaluated by the QA reviewer in the field include:

- Proper selection of BMPs
- Proper placement of BMPs in accordance with WPCP or SWPPP
- Proper installation of BMPs
- Proper maintenance of BMPs
- Approval of WPCP or SWPPP
- Amendment of WPCP or SWPPP as required
- Approval of Annual Compliance Certification
- Project inspection frequencies
- Stormwater contract administrative documentation
- Corrective actions taken to remedy observed deficiencies

The CPSRA analyzes BMP deficiencies and their potential or real impact on receiving water quality resulting in a rating that reflects the level of a project's compliance with the applicable permits, regulations and guidelines, and administration of construction contracts related to stormwater runoff management.

## 2.3 Alpha-Numeric Rating Criteria

Each construction project stormwater compliance review was conducted using two separate rating criteria:

- BMP Specification Compliance (Numeric Rating)
- Contract Administration Documentation (Alpha Rating)

The BMP compliance rating is a sliding scale with "1" representing compliance and "4" representing noncompliance. The BMP compliance rating is an assessment of BMP adequacy. The numeric component of the rating represents the potential threat to water quality in terms of implementation and maintenance of construction site BMPs on a project. Numeric ratings integrate a detailed review of all construction site BMPs and how they are implemented, installed and maintained. The BMP compliance rating is could be affected by percentage of deficient BMPs, forecasted precipitation events and sampling of stormwater runoff.

Stormwater contract administration assessment is based on a review of required documentation, amendments to the same, timely review and approval of document submittals and reporting requirements. The stormwater contract administration rating is a sliding scale with "A" representing compliance and "D", noncompliance. This alpha rating evaluates the level of compliance with the permits in accordance with the permits specifications and guidance documents, and compliance of stormwater contract administrative activities with contract specifications and guidance documents.

### 2.3.1 Water Quality Compliance – Numeric Criteria

The CCEP water quality compliance rating criteria used in 2012-2013 are summarized below.

#### 1 Rating

The project poses no perceived threat to water quality, and between 0 and 9.99 percent of total BMPs, are deficient due to:

1. Missing BMPs
2. Improper location
3. Incorrect installation
4. Lack of maintenance
5. Improper selection

#### 2 Rating

While the project poses no perceived threat to water quality, between 10 and 29.99 percent of all deficient BMPs are deficient due to:

1. Missing BMPs
2. Improper location
3. Incorrect installation
4. Lack of maintenance
5. Improper selection

### 3 Rating

While the project poses no perceived threat to water quality, between 30 and 49.99 percent of all BMPs are deficient due to:

1. Missing BMPs
2. Improper location
3. Incorrect installation
4. Lack of maintenance
5. Improper selection

### 4 Rating

The project poses a perceived threat to water quality, as 50 percent or more of all BMPs are deficient due to:

1. Missing BMPs
2. Improper location
3. Incorrect installation
4. Lack of maintenance
5. Improper selection

Additionally a project will receive a 4 rating if the project has a high risk of posing a threat to water quality and the review observations support either of the following criteria:

- Uncontrolled discharge
- Evidence of uncontrolled discharge

Specific examples are:

- Any actual discharge of stormwater or non-stormwater to a receiving water or active drainage inlet from the project that is uncontrolled.
- Working in an active stream channel when permitted or other water body when permitted without proper implementation of required BMPs.
- Any discharge of sediment or other deleterious substances resulting from dewatering operations conducted without implementation of required BMPs for dewatering.
- If work starts on a construction project without RE approval of the SWPPP.

## 2.3.2 Stormwater Contract Administration – Alpha Rating

The CCEP contract administration compliance rating criteria used in 2012-2013 are summarized below.

### A Rating

A project is assigned an A rating when there are 0 to 9.99 percent document deficiencies and the review of project documentation supports all of the following:

- The approved WPCP or SWPPP appropriately addresses current operations.
- SWPPP or WPCP or amendments are on file and signed.
- Site inspections by the contractor are conducted in accordance with expected frequencies.
- Sampling and analysis plans as required have been properly documented, filed, and reflect current field conditions.

- Sampling results have been properly logged and are up to date.
- If applicable, the dewatering plan has been approved by the Regional Water Quality Control Board and is on file.

The A rating is assigned to the project when 9.99 percent or less of a construction project's applicable water pollution control requirements are not met on the date of the review.

## B Rating

A project is assigned a B rating when at least one of the following deficiencies is documented or when 10 percent to 24.99 percent of a construction project's applicable water pollution control requirements are not met.

- The approved SWPPP or WPCP does not reflect current operations and amending of the document is needed.
- The SWPPP or WPCP or amendment(s) are not on file or are not signed.
- On-file documentation of site inspections performed by the contractor is not up-to-date.
- The contractor's yard, staging area, material or waste storage sites directly related to the project are not addressed in the SWPPP or WPCP.
- The contractor does not have a copy of the approved SWPPP or WPCP on site.
- When one numeric action level (NAL) exceedance has not been received by the RE within 48 hours after conclusion of the storm event.

## C Rating

Between 25 percent and 49.99 percent of the contract specification requirements listed above are not met. A project is assigned a C rating when 1 to 4 or fewer of the following conditions are documented. These are project documentation deficiencies that require immediate correction.

- SWPPP or WPCP or amendments are not on file or signed and are more than two weeks past due.
- Annual certification of the project SWPPP and/or project annual report is/are not on file or signed and is/are more than two weeks past due.
- File documentation of site inspections performed by the contractor do not support the contract specified minimum frequency and are more than two weeks past due.
- File documentation of site inspections by Caltrans staff are not in accordance with expected frequencies in Section 6.4.2, "Caltrans Inspections," of the SWMP, and are more than two weeks past due.
- Expansion beyond the contract specified limit for active disturbed soil areas without resident engineer's written approval.
- Sampling was conducted but proper documentation is not on file.
- A required dewatering plan has not been submitted or approved.
- Required 401 reporting is not complete.
- When more than 24 hours has elapsed before the RE submits a numeric effluent limit (NEL) violation report to the Board for construction sites with Active Treatment System (ATS).
- When more than 5 days has elapsed before the RE submits electronic results to the Board.
- When 2 or more numeric action limit (NAL) exceedances have not been received by the RE within 48 hours, after conclusion of the storm event.

- When one NAL exceedance report has been submitted to the RE but not submitted electronically to the Board within 10 days after conclusion of the storm event.
- When the Water Pollution Control Manager's certification is not on file in the SWPPP or WPCP on site.
- When no evidence is on file that permit and contract required meetings are held to discuss stormwater issues.
- When the following items are missing from the schedule:
  - Agency Work Window Restrictions
  - Soil Disturbing Activities and BMP Implementation
- When 3 sequential inspections are missing.
- When pH or turbidity is not measured from the discharge from the construction site and there is no documentation for why no required sampling occurred.

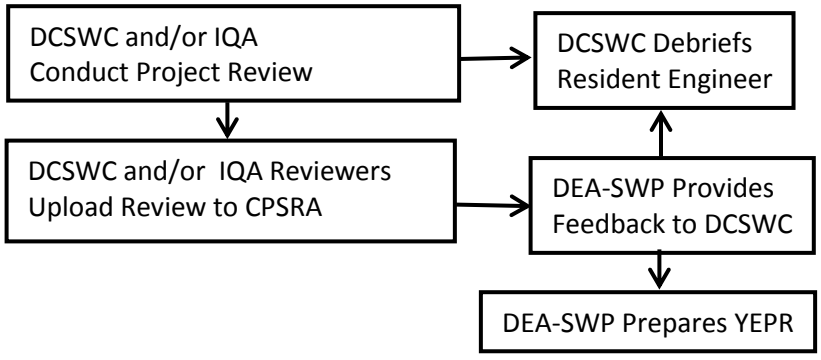
### D Rating

A project assigned a D rating when any one of the following conditions exists:

- Soil disturbance started without an approved or conditionally approved SWPPP or WPCP.
- A Notice of Discharge was not submitted to the RWQCB within 14 days when required.
- When 5 or more items under a C rating are observed.
- When 80 percent or more of the construction project's applicable water pollution control requirements listed above are not met on the date of the review.
- Project Registration Documents have not been submitted to the Stormwater Multi-Application Records Tracking System (SMARTS)
- When 4 or more inspections are missing over the past 4 weeks.
- When 4 or more sequential inspections are missing in the last 4 weeks.
- When 2 or more NAL exceedance reports have been submitted to the RE but not submitted electronically to the Board within 10 days after conclusion of the storm event.

## 2.4 Feedback and Program Improvement

This section outlines the process for the project review and feedback employed by the DCSWC, the resident engineer, the IQA and DEA-SWP. This process is summarized in the flow chart below:




Feedback and Program Improvement

The DCSWC schedules and the both QA Reviewer and the IQA complete the construction site review. Following the completion of the review, both the QA Reviewer and the IQA upload the data to CPSRA. The DCSWC debriefs the RE or their designee after completion of each review. The DCSWC will work directly with the RE to resolve or correct project level deficiencies to ensure an effective stormwater program is in place at the project level. The DCSWCs will assist the RE in identifying immediate corrective action to be taken for projects receiving a rating of 3, 4, C, or D. Projects reflecting a rating of 4 will be acted upon within 24 hours upon receipt of the project review report. Projects receiving a rating of 3, 4, C, or D will be reported to the district construction division chief (deputy district director for construction) and the district stormwater NPDES coordinator. The district construction division chief identifies deficiencies common to project ratings of 3, 4, C, or D.

The RE documents the action that was taken in response to the project's rating of 3, 4, C, or D. Projects reflecting a rating of 3, C, or D will be acted upon within one week (5 working days) upon receipt of the project review report. Projects reflecting a rating of 4 will be acted upon within 24 hours upon receipt of the project review report. The DCSWC will report within 24 hours at completion of the CPSRP to Division of Environmental Analysis for projects with a rating of 4.

### 2.4.1 Trends Evaluation

The Division of Environmental Analysis analyzes the data, identifying trends for occurrence of reported deficiencies by type and by district in the YEPR. The information gathered will also provide critical data about strengths and weaknesses of the stormwater program for construction, and current and future resource needs to administer an effective and stable program.

## 2.5 Modifications to the 2008 CCEP

In 2012-2013, Caltrans implemented several changes to the 2008 CCEP to respond to the new Caltrans Permit and the CGP. These changes fall into the following three categories:

Project Selection

- In 2012-2013, Caltrans revised the construction project selection process to prioritize construction project reviews with higher potential "risks" or "threats" to water quality, based on criteria including:
    - Overall project size
    - Project complexity
    - Size of disturbed soil areas (DSA)
    - Location near sensitive receiving waters , e.g., 303(d) listed watersheds, Areas of Special Biological Significance (ASBS)

Field Review Procedures

- In 2012-2013, all stormwater BMPs located on construction projects were reviewed. Under the 2008 CCEP, a sampling procedure was utilized to select a subset of BMPs from each BMP type for review.
- In 2012-2013, additional CGP-required documentation, e.g., documents related to REAPS and NAL and NEL sampling, monitoring and reporting, were reviewed.

Overall Site Rating Calculation, CPSRA

The CPSRA process to calculate overall site ratings was revised in 2012-2013, with changes including.

- Overall numeric ranking was modified by automatically downgrading numeric ranking if runoff was observed during the site review and there was more than 0.1 inches of rainfall in the last 24 hours. Also, the site could be downgraded if runoff was observed and a stormwater BMP deficiency was observed.
- The alpha ranking was modified by automatically downgrading the overall site alpha ranking to a "D" when critical documents (SWPPP, WPCP) were not approved and when NAL Exceedance Reports were not provided to the RWQCB.
- The alpha ranking also automatically downgraded the overall site alpha ranking to a "C" if inactive DSAs were not properly managed, if REAPs were not approved or on file, or if inspections were missing.

The 2008 CCEP is currently being modified with a 2013 CCEP to reflect these and other changes that have been made to the CCEP program. Caltrans implemented these changes to the July 2008 CCEP to comply with the requirements of the new Caltrans Statewide NPDES Permit and the CGP until the 2013 CCEP can be implemented.

# 3. Performance Assessment

This section presents the overall site ratings for the Caltrans construction projects reviewed by the DCSWCs from July 1, 2012 to June 30, 2013. The combined numeric/alphabetic criteria are presented first, followed by overall performance of numeric BMP ranking (1 to 4) and alpha-BMP ranking (A to D).

## 3.1 Combined Review Results

Table 3-1 and Figure 3-1 presents a summary of the combined construction project stormwater review results for the last three years. Reviews were conducted statewide from July 1, 2010 to June 30, 2011, July 1, 2011 to June 30, 2012 and July 1, 2012 to June 30, 2013.

In 2012-2013, a total of 98 reviews were conducted, which was more than the 88 reviews conducted in 2011-2012 and less than the 150 reviews conducted in 2010-2011. Some construction sites were reviewed more than once during each year, as follows:

- 2010-2011 – 150 reviews conducted at 145 construction projects
- 2011-2012 – 88 reviews conducted at 71 construction projects
- 2012-2013 – 98 reviews conducted at 73 construction projects

| Table 3-1. Combined Review Results (All Projects) Current Data Compared to Previous Years | | | | | | |
|---|---|---|---|---|---|---|
| Combined Rating | 2012-2013 | | 2011-2012 | | 2010-2011 | |
| | Number of Reviews | Percentage of Reviews | Number of Reviews | Percentage of Reviews | Number of Reviews | Percentage of Reviews |
| 1A | 22 | 22.4 | 36 | 40.9 | 85 | 56.7 |
| 1B | 11 | 11.2 | 13 | 14.8 | 3 | 2.0 |
| 1C | 7 | 7.1 | 4 | 4.5 | 12 | 8.0 |
| 1D | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 2A | 10 | 10.2 | 13 | 14.8 | 15 | 10.0 |
| 2B | 10 | 10.2 | 8 | 9.1 | 20 | 13.3 |
| 2C | 7 | 7.1 | 11 | 12.5 | 3 | 2.0 |
| 2D | 6 | 6.1 | 0 | 0.0 | 0 | 0.0 |
| 3A | 2 | 2.0 | 0 | 0.0 | 2 | 1.3 |
| 3B | 3 | 3.1 | 0 | 0.0 | 3 | 2.0 |
| 3C | 4 | 4.1 | 3 | 3.4 | 6 | 4.0 |
| 3D | 4 | 4.1 | 0 | 0.0 | 0 | 0.0 |
| 4A | 1 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| 4B | 1 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| 4C | 9 | 9.2 | 0 | 0.0 | 1 | 0.7 |
| 4D | 1 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 98 | 100 | 88 | 100 | 150 | 100 |

Table 3-1 presents the number of reviews and the ratings for construction projects over the past three fiscal years. Table 3-1 shows that 53 of 98 (54%) of all project reviews were rated 1A, 1B, 2A, 2B for 2012-2013; a decline compared to the previous two years, when 82% of all project reviews were rated 1A, 1B, 2A, 2B.

Figure 3-1 shows that the same declining trend in sites with an overall 1A rating in 2012-2013 compared to 2010-11 and 2011-12. Sites with 1B, 2A, and 2B ratings were relatively unchanged over the same three year period.. The increased number of 2D, 3D, 4A, 4B, 4C and 4D sites in 2012-2013 compared to previous years, show that both numeric and alpha site ratings are lower for 2012-2013 than in previous years. While the percentages in Table 3-1 and Figure 3-1 declined, comparisons between years must consider the changes in CCEP review procedures implemented in 2012-2013 (see Section 2.5).

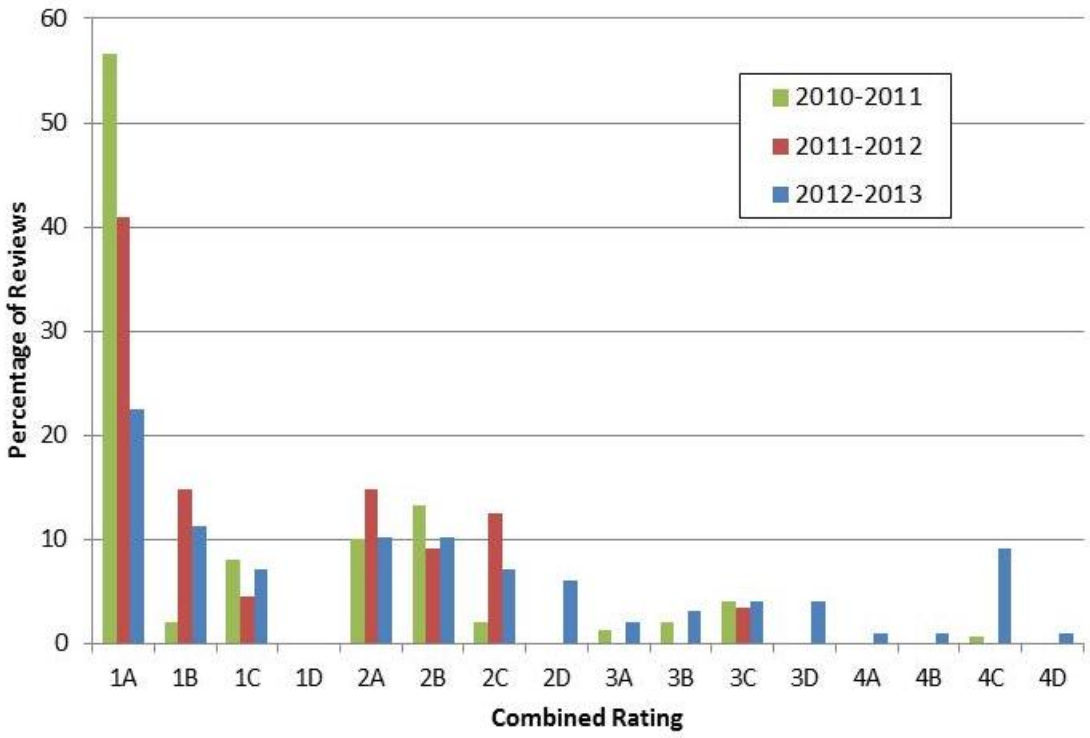



Figure 3-1. Overall Alpha Numeric Ratings (All Projects)

## 3.2 Numeric Review Results

Section 3.2 evaluates the numeric ratings in 2012-2013 for project reviews by district to evaluate the adequacy of BMPs in minimizing stormwater runoff. As discussed in Section 2, a numeric rating of 1 or 2 indicates that the project poses minimal threat to water quality. A 3 or 4 rating indicates a potential (3 rating) or actual (4 rating) or evidence of an actual release . Table 3-2 summarizes the numeric ratings by district in 2012-2013.

| Table 3-2. Numeric Rating Summary (All Projects) July 1, 2012 – June 30, 2013 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| District | Number of Reviews | 1 Rating | | 2 Rating | | 3 Rating | | 4 Rating | |
| 1 | 16 | 8 | 8% | 5 | 5% | 2 | 2% | 1 | 1% |
| 2 | 18 | 6 | 6% | 6 | 6% | 4 | 4% | 2 | 2% |
| 3 | 20 | 11 | 11% | 6 | 6% | 2 | 2% | 1 | 1% |
| 4 | 18 | 4 | 4% | 6 | 6% | 3 | 3% | 5 | 5% |
| 5 | 8 | 4 | 4% | 1 | 1% | 1 | 1% | 2 | 2% |
| 6 | 1 | 0 | 0% | 1 | 1% | 0 | 0% | 0 | 0% |
| 7 | 0 | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 8 | 4 | 3 | 3% | 1 | 1% | 0 | 0% | 0 | 0% |
| 9 | 0 | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 10 | 2 | 1 | 1% | 0 | 0% | 0 | 0% | 1 | 1% |
| 11 | 8 | 2 | 2% | 5 | 5% | 1 | 1% | 0 | 0% |
| 12 | 3 | 1 | 1% | 2 | 2% | 0 | 0% | 0 | 0% |
| Total | 98 | 40 | 41% | 33 | 34% | 13 | 13% | 12 | 12% |

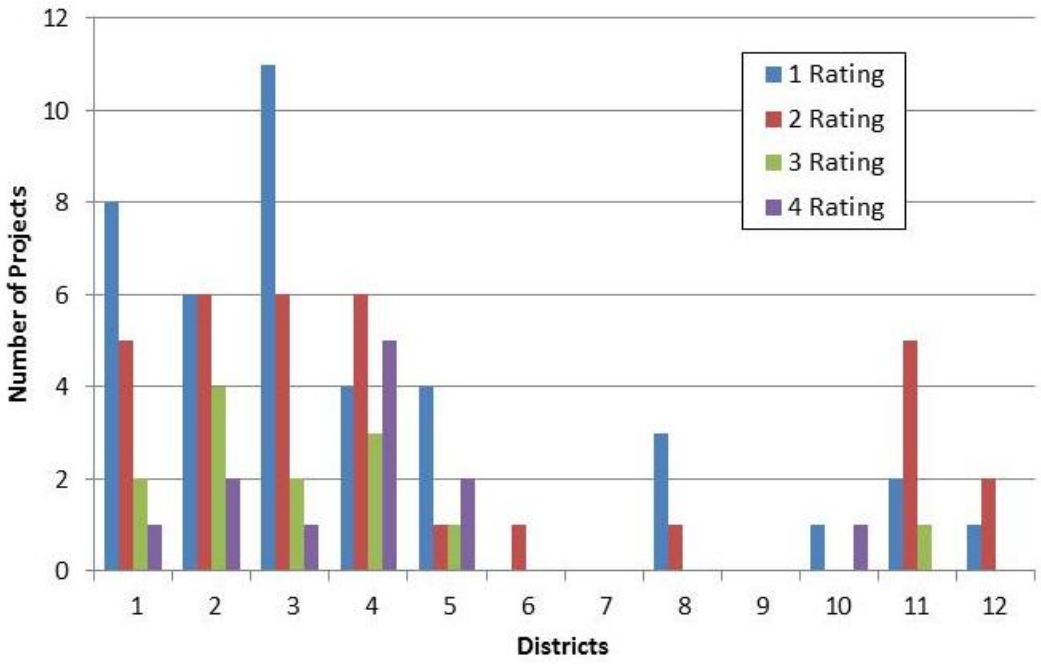



Figure 3-2. Numeric Rating Summary (All Projects)

During the July 1, 2012 to June 30, 2013 reporting period, 73 out of 98 site reviews (74%) resulted in a 1 or a 2 rating. In 2012-2013, a total of 25 of 98 (26%) projects received a 3 or 4 rating. In 2011-2012, only 3 of 88 projects (3%) received a numeric rating of 3 or 4; in 2010-2011, 12 of 150 projects (8%) received a numeric rating of 3 or 4. The higher frequency of projects receiving a 3 or 4 rating in

2012-2013 must consider the changes in CCEP review procedures implemented in 2012-2013 (see Section 2.5).

## 3.3 Alpha Review Results

Section 3.3 presents a summary of the 2012-2013 alpha ratings for projects reviews in each district. As discussed in Section 2, alpha ratings are based on stormwater contract administration; more specifically the existence of required contracts, required documentation, amendments, reviews and approvals of documents. Table 3-3 and Figure 3-3 presents the alpha rating for each district for 2012-2013.

**Table 3-3. Alpha Rating Summary (All Projects)**
**July 1, 2012 – June 30, 2013**

| District | Number of Reviews | A Rating | | B Rating | | C Rating | | D Rating | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 3 | 3% | 6 | 6% | 4 | 4% | 3 | 3% |
| 2 | 18 | 3 | 3% | 7 | 7% | 7 | 7% | 1 | 1% |
| 3 | 20 | 9 | 9% | 4 | 4% | 6 | 6% | 1 | 1% |
| 4 | 18 | 2 | 2% | 3 | 3% | 8 | 8% | 5 | 5% |
| 5 | 8 | 6 | 6% | 2 | 2% | 0 | 0% | 0 | 0% |
| 6 | 1 | 0 | 0% | 0 | 0% | 1 | 1% | 0 | 0% |
| 7 | 0 | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 8 | 4 | 2 | 2% | 2 | 2% | 0 | 0% | 0 | 0% |
| 9 | 0 | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| 10 | 2 | 1 | 1% | 0 | 0% | 1 | 1% | 0 | 0% |
| 11 | 8 | 7 | 7% | 1 | 1% | 0 | 0% | 0 | 0% |
| 12 | 3 | 2 | 2% | 0 | 0% | 0 | 0% | 1 | 1% |
| Total | 98 | 35 | 36% | 25 | 26% | 27 | 28% | 11 | 11% |

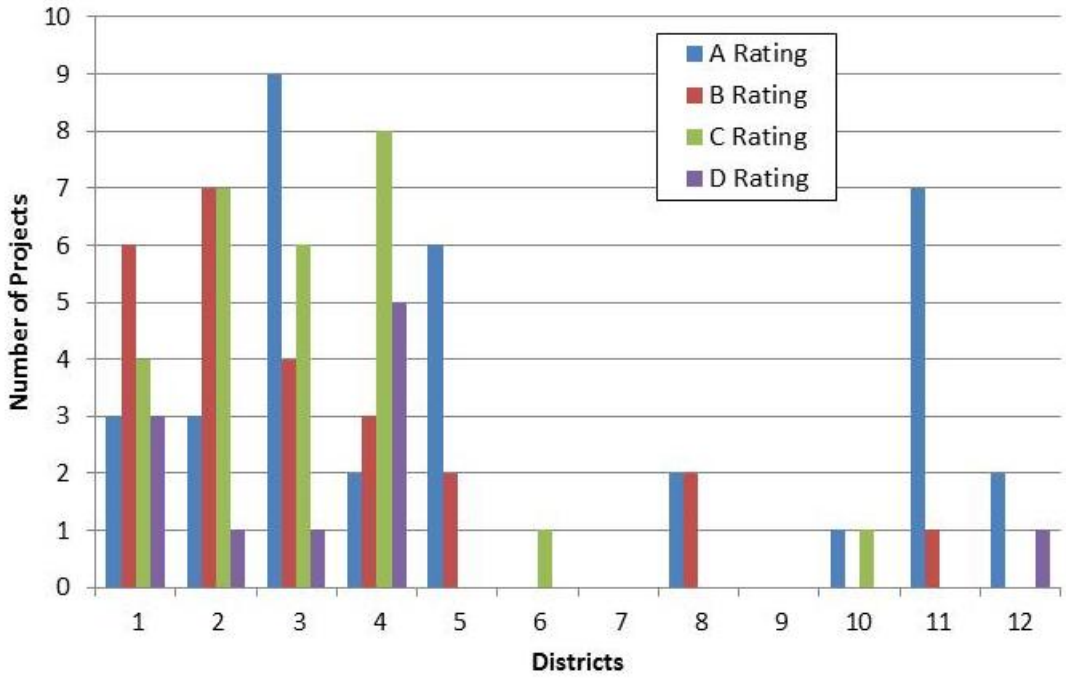



Figure 3-3. Alpha Rating Summary (All Projects)

Of the reviews conducted during the 2012-2013 reporting period, 60 out of 98 site reviews (61%) resulted in an A or a B rating. An A or B rating indicates that contract administrative documentation is adequate.

In 2012-2013, 38 of 98 (39%) projects received an unsatisfactory C or D rating; an increase compared to 2011-2012 (20%) and 2010-2011 (15%). The higher frequency of projects receiving a C or D rating in 2012-2013 must consider the changes in CCEP review procedures implemented in 2012-2013 (see Section 2.5).

# 4. Trends

This section summarizes the trends in BMP compliance as reviewed during 2012-2013. As discussed in Sections 1 and 2, the purpose of the CCEP review is to quantify two elements of compliance: 1) BMP compliance to contract specifications; and 2) Completeness of contract administration documentation. Section 4 tabulates specific BMP and contract administration documentation deficiencies. Numeric and alpha BMP performance for 2012-2013 are also compared to the previous two years.

## 4.1 BMP Adequacy

Table 4-1 presents a summary of the performance for all 51 types of stormwater BMPs reviewed in 2012-2013 for a total of 3,866 BMPs reviewed in 2012-2013. Table 4-1 is sorted by most to fewest deficiencies reported, regardless of the total number of BMPs reviewed. Table 4-1 shows 1,094 of 3,866 BMPs (28%), were found to be deficient in 2012-2013.

| Table 4-1. Summary of BMPs Reviewed | | | | |
|---|---|---|---|---|
| BMP Name | Description | No. Reviewed | No. Deficiencies | % Deficient |
| WM-5 | Solid Waste Management | 251 | 129 | 51 |
| SC-10 | Storm Drain Inlet Protection | 545 | 125 | 23 |
| SC-1 | Silt Fence | 321 | 107 | 33 |
| WM-4 | Spill Prevention and Control | 178 | 95 | 53 |
| SC-5 | Fiber Rolls | 237 | 91 | 38 |
| WM-3 | Stockpile Management | 214 | 82 | 38 |
| SC-4 | Check Dam | 323 | 59 | 18 |
| WM-8 | Concrete Waste Management | 99 | 53 | 54 |
| WM-1 | Material Delivery and Storage | 138 | 39 | 28 |
| TC-1 | Stabilized Construction Entrance/Exit | 119 | 35 | 29 |
| WM-6 | Hazardous Waste Management | 51 | 35 | 69 |
| NS-10 | Vehicle and Equipment Maintenance | 62 | 34 | 55 |
| SS-7 | Geotextiles, Plastic Covers, Erosion Control Blankets | 139 | 31 | 22 |
| TC-4 | Street Sweeping and Vacuuming | 51 | 24 | 47 |
| SS-3 | Hydraulic Mulch | 89 | 23 | 26 |
| SS-6 | Straw Mulch | 103 | 21 | 20 |
| SS-2 | Preservation of Existing Vegetation | 158 | 16 | 10 |
| NS-3 | Paving and Grinding Operations | 20 | 12 | 60 |
| SC-6 | Gravel Bag Berm | 125 | 11 | 9 |
| WM-9 | Sanitary/Septic Waste Management | 208 | 10 | 5 |
| NS-1 | Water Conservation Practices | 36 | 9 | 25 |
| NS-9 | Vehicle and Equipment Fueling | 33 | 7 | 21 |
| WE-1 | Wind Erosion Control | 28 | 6 | 21 |
| NS-13 | Material and Equipment Use Over Water | 19 | 5 | 26 |
| NS-5 | Clear Water Diversion | 21 | 5 | 24 |
| SS-10 | Outlet Protection/Velocity Dissipation Devices | 13 | 4 | 31 |
| WM-2 | Material Use | 22 | 4 | 18 |
| NS-12 | Concrete Curing | 9 | 3 | 33 |
| NS-2 | Dewatering Operations | 8 | 3 | 38 |
| WM-10 | Liquid Waste Management | 5 | 3 | 60 |
| NS-14 | Concrete Finishing | 3 | 2 | 67 |
| SC-3 | Sediment Trap | 49 | 2 | 4 |
| SC-9 | Straw Bale Barrier | 20 | 2 | 10 |
| WM-7 | Contaminated Soil Management | 4 | 2 | 50 |
| NS-4 | Temporary Stream Crossing | 16 | 1 | 6 |

| Table 4-1. Summary of BMPs Reviewed | | | | |
|---|---|---|---|---|
| BMP Name | Description | No. Reviewed | No. Deficiencies | % Deficient |
| SC-2 | Sediment/Desilting Basin | 14 | 1 | 7 |
| SS-11 | Slope Drains | 30 | 1 | 3 |
| SS-5 | Soil Binders | 21 | 1 | 5 |
| SS-9 | Earth Dikes/Drainage Swales & Lined Ditches | 24 | 1 | 4 |
| NS-11 | Pile Driving Operations | 4 | 0 | 0 |
| NS-15 | Structure Demolition/Removal Near Water | 2 | 0 | 0 |
| NS-6 | Illicit Connection/Illegal Discharge Detection | 0 | 0 | 0 |
| NS-7 | Potable Water/Irrigation | 2 | 0 | 0 |
| NS-8 | Vehicle and Equipment Cleaning | 1 | 0 | 0 |
| SC-8 | Sandbag Barrier | 2 | 0 | 0 |
| SS-1 | Scheduling | 0 | 0 | 0 |
| SS-12 | Streambank Stabilization | 0 | 0 | 0 |
| SS-4 | Hydroseeding | 12 | 0 | 0 |
| SS-8 | Wood Mulching | 3 | 0 | 0 |
| TC-2 | Stabilized Construction Roadway | 31 | 0 | 0 |
| TC-3 | Entrance/Outlet Tire Wash | 3 | 0 | 0 |
| **Total** | | **3,866** | **1,094** | **28** |

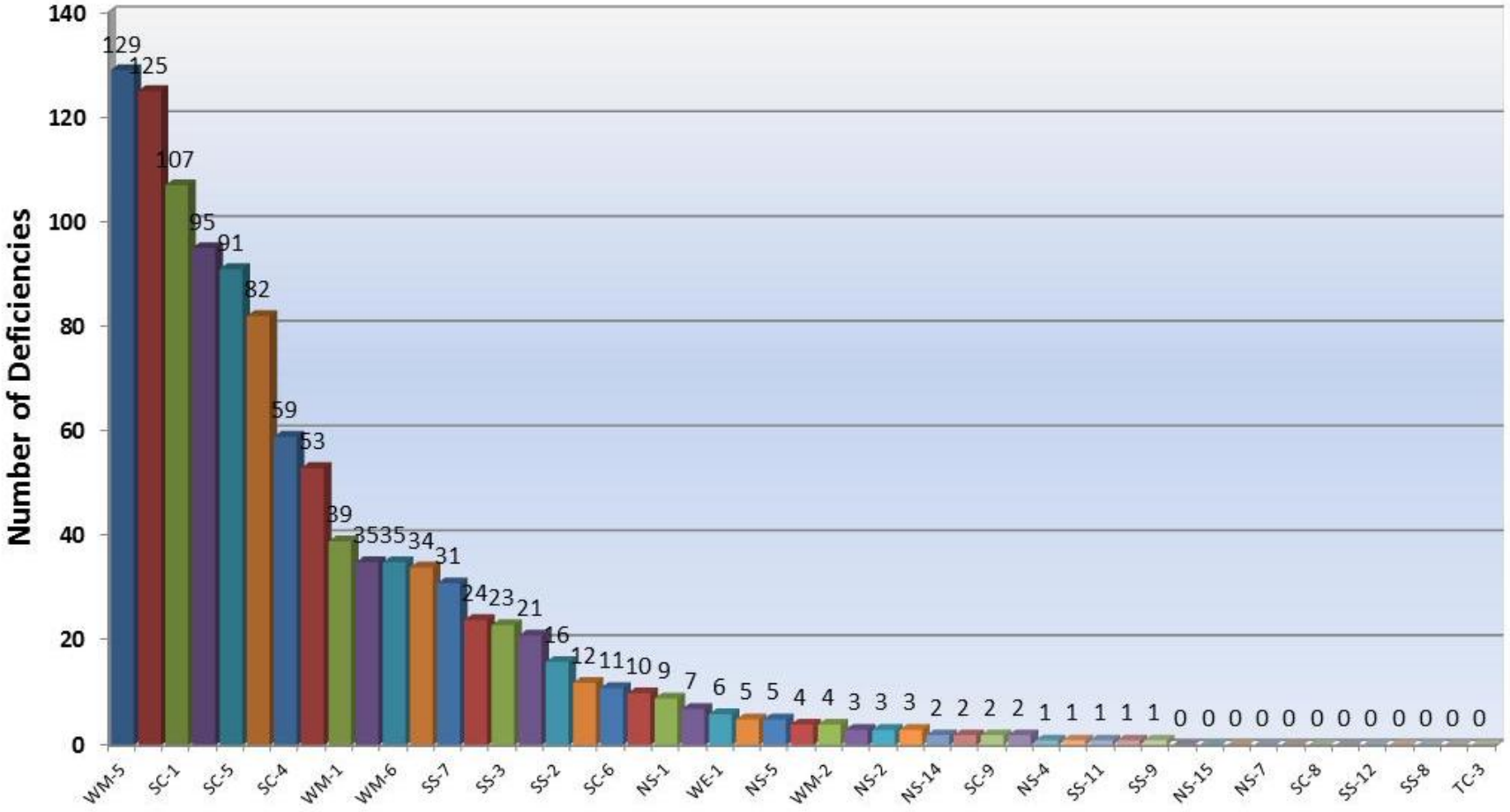



Figure 4-1. BMPs – Sorted by Number of Deficiencies

Figure 4-1 summarizes the number of deficiencies identified in 39 stormwater BMPs in 2012-2013. Figure 4-1 presents the number of deficiencies, sorted by most to fewest deficiencies. .

Analysis of Table 4-1 and Figure 4-1 provide the following trends for 2012-2013:

- Out of 3,866 BMPs reviewed, 1,094 BMPs (28%) were not properly implemented (deficient).
- The top 12 stormwater BMPs with the most reported deficiencies accounting for 884 of the 1,094 (81%) of the reported deficiencies in 2012-2013. A total of 210 (19%) deficiencies were reported on the remaining 39 BMPs.
- The highest numbers of deficiencies (129) were reported for solid waste management (WM-5) followed by storm drain inlet protection (SC-10), which had 125 reported deficiencies.
- Silt fence (SC-1), spill prevention and control (WM-4), and fiber roll (SC-5) had 125, 107 and 95 deficiencies, respectively.
- Stockpile management (WM-3) had 82 deficiencies, followed by check dams (SC-4), with 59 deficiencies and concrete waste management (WM-8) with 53 deficiencies reported in 2012-2013.

BMP deficiencies were also assessed by evaluating the percentage of deficient BMPs. Some BMPs were reviewed more than 200 times in 2012-2013 leading to a high number of deficiencies. Table 4-2 and Figure 4-2 sort BMPs reviewed in 2012-2013 by percentage of deficient BMPs.

**Table 4-2. BMPs Sorted by Percentage of Deficiencies**

| BMP Name | Description | No. Reviewed | No. Deficiencies | % Deficient |
|---|---|---|---|---|
| WM-6 | Hazardous Waste Management | 51 | 35 | 69 |
| NS-14 | Concrete Finishing | 3 | 2 | 67 |
| NS-3 | Paving and Grinding Operations | 20 | 12 | 60 |
| WM-10 | Liquid Waste Management | 5 | 3 | 60 |
| NS-10 | Vehicle and Equipment Maintenance | 62 | 34 | 55 |
| WM-8 | Concrete Waste Management | 99 | 53 | 54 |
| WM-4 | Spill Prevention and Control | 178 | 95 | 53 |
| WM-5 | Solid Waste Management | 251 | 129 | 51 |
| WM-7 | Contaminated Soil Management | 4 | 2 | 50 |
| TC-4 | Street Sweeping and Vacuuming | 51 | 24 | 47 |
| SC-5 | Fiber Rolls | 237 | 91 | 38 |
| WM-3 | Stockpile Management | 214 | 82 | 38 |
| NS-2 | Dewatering Operations | 8 | 3 | 38 |
| NS-12 | Concrete Curing | 9 | 3 | 33 |
| SC-1 | Silt Fence | 321 | 107 | 33 |
| SS-10 | Outlet Protection/Velocity Dissipation Devices | 13 | 4 | 31 |
| TC-1 | Stabilized Construction Entrance/Exit | 119 | 35 | 29 |
| WM-1 | Material Delivery and Storage | 138 | 39 | 28 |
| NS-13 | Material and Equipment Use Over Water | 19 | 5 | 26 |

| Table 4-2. BMPs Sorted by Percentage of Deficiencies | | | | |
|---|---|---|---|---|
| BMP Name | Description | No. Reviewed | No. Deficiencies | % Deficient |
| SS-3 | Hydraulic Mulch | 89 | 23 | 26 |
| NS-1 | Water Conservation Practices | 36 | 9 | 25 |
| NS-5 | Clear Water Diversion | 21 | 5 | 24 |
| SC-10 | Storm Drain Inlet Protection | 545 | 125 | 23 |
| SS-7 | Geotextiles, Plastic Covers, Erosion Cont Blankets | 139 | 31 | 22 |
| WE-1 | Wind Erosion Control | 28 | 6 | 21 |
| NS-9 | Vehicle and Equipment Fueling | 33 | 7 | 21 |
| SS-6 | Straw Mulch | 103 | 21 | 20 |
| SC-4 | Check Dam | 323 | 59 | 18 |
| WM-2 | Material Use | 22 | 4 | 18 |
| SS-2 | Preservation of Existing Vegetation | 158 | 16 | 10 |
| SC-9 | Straw Bale Barrier | 20 | 2 | 10 |
| SC-6 | Gravel Bag Berm | 125 | 11 | 9 |
| SC-2 | Sediment/Desilting Basin | 14 | 1 | 7 |
| NS-4 | Temporary Stream Crossing | 16 | 1 | 6 |
| WM-9 | Sanitary/Septic Waste Management | 208 | 10 | 5 |
| SS-5 | Soil Binders | 21 | 1 | 5 |
| SS-9 | Earth Dikes/Drainage Swales & Lined Ditches | 24 | 1 | 4 |
| SC-3 | Sediment Trap | 49 | 2 | 4 |
| SS-11 | Slope Drains | 30 | 1 | 3 |
| NS-11 | Pile Driving Operations | 4 | 0 | 0 |
| NS-15 | Structure Demolition/Removal Near Water | 2 | 0 | 0 |
| NS-6 | Illicit Connection/Illegal Discharge Detection | 0 | 0 | 0 |
| NS-7 | Potable Water/Irrigation | 2 | 0 | 0 |
| NS-8 | Vehicle and Equipment Cleaning | 1 | 0 | 0 |
| SC-8 | Sandbag Barrier | 2 | 0 | 0 |
| SS-1 | Scheduling | 0 | 0 | 0 |
| SS-12 | Streambank Stabilization | 0 | 0 | 0 |
| SS-4 | Hydroseeding | 12 | 0 | 0 |
| SS-8 | Wood Mulching | 3 | 0 | 0 |
| TC-2 | Stabilized Construction Roadway | 31 | 0 | 0 |
| TC-3 | Entrance/Outlet Tire Wash | 3 | 0 | 0 |
| **Total** | | **3,866** | **1,094** | **28** |

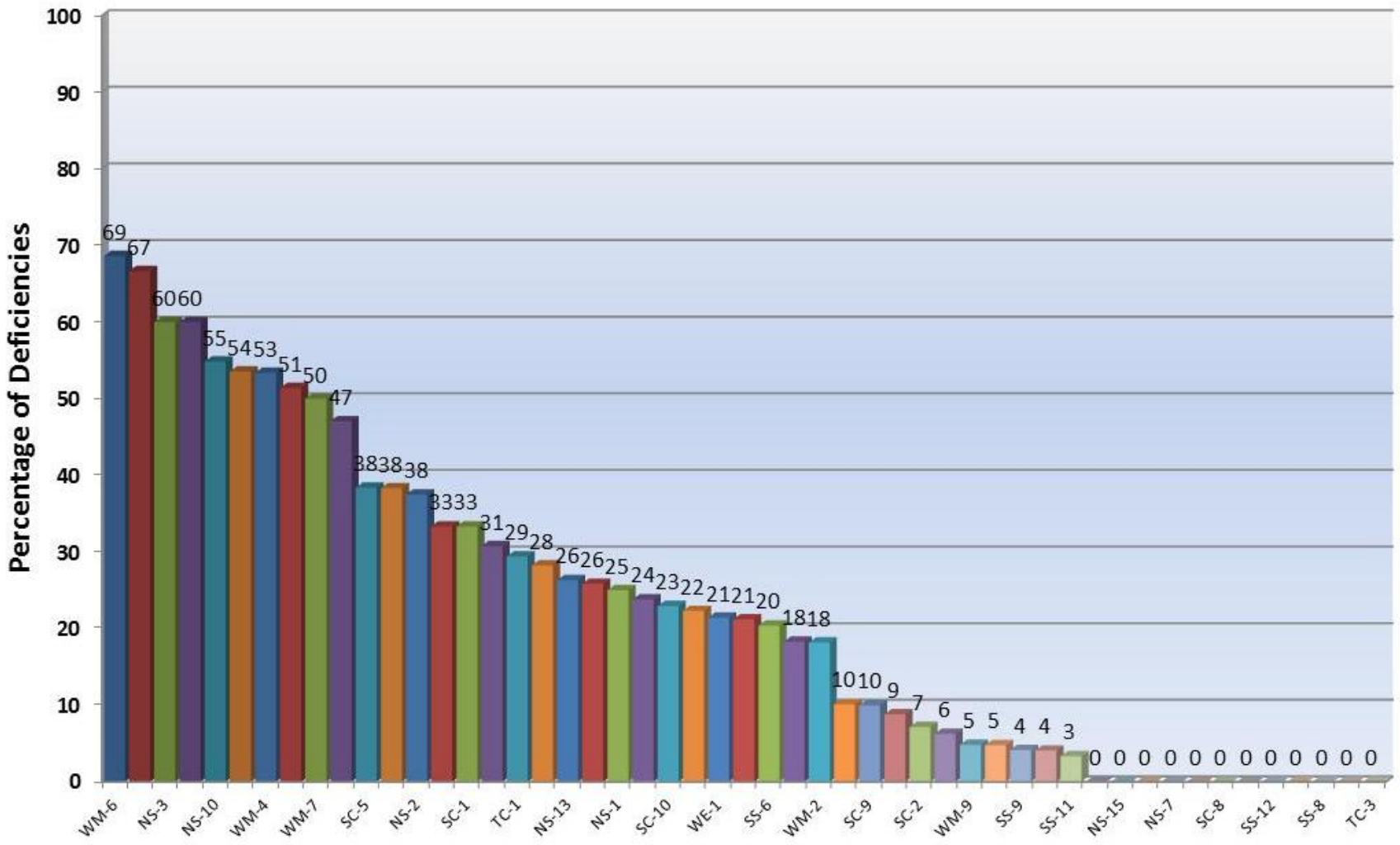



Figure 4-2. BMPs – Sorted by Percentage of Deficiencies

Table 4-2 and Figure 4-2 suggest the following trends based on percentage deficiencies for numeric BMPs in 2012-2013:

- 69% of the hazardous waste management (WM-6) BMPs were identified as deficient.
- 67% of the concrete finishing (NS-14) BMPs were identified as deficient.
- 17 of 51 BMPs reported higher than the average percentage (28%) deficiencies.
- 34 of 51 numeric BMPs reported lower than average percentage (28%) deficiencies. Of these 34 BMPs, 12 BMPs had no reported deficiencies.

Tables 4-3A, 4-3B, 4-3C and 4-3D present the percentage deficiencies by each BMP type. Tables 4-3A, 4-3B, 4-3C and 4-3D also compare the percentage deficiencies from 2012-2013, 2011-2012, and 2010-2011. This evaluation is useful to consider if one category of BMP (e.g., waste management) has a higher proportion of reported deficiencies.

**Table 4-3A. Summary of Non-Stormwater BMPs**

| BMP Name | Description | 2012 – 2013 | | | 2011 - 2012 | 2010 - 2011 |
|---|---|---|---|---|---|---|
| | | No. Reviewed | No. Deficiencies | % Deficient | % Deficient | % Deficient |
| NS-1 | Water Conservation Practices | 36 | 9 | 25 | 3 | 3 |
| NS-2 | Dewatering Operations | 8 | 3 | 38 | 0 | 0 |
| NS-3 | Paving and Grinding Operations | 20 | 12 | 60 | 8 | 5 |
| NS-4 | Temporary Stream Crossing | 16 | 1 | 6 | 0 | 33 |
| NS-5 | Clear Water Diversion | 21 | 5 | 24 | 100 | 0 |
| NS-6 | Illicit Connection/Illegal Discharge Detection | 0 | 0 | 0 | 0 | 0 |
| NS-7 | Potable Water/Irrigation | 2 | 0 | 0 | 0 | 0 |
| NS-8 | Vehicle and Equipment Cleaning | 1 | 0 | 0 | 33 | 0 |
| NS-9 | Vehicle and Equipment Fueling | 33 | 7 | 21 | 62 | 60 |
| NS-10 | Vehicle and Equipment Maintenance | 62 | 34 | 55 | 7 | 32 |
| NS-11 | Pile Driving Operations | 4 | 0 | 0 | 0 | 0 |
| NS-12 | Concrete Curing | 9 | 3 | 33 | 0 | 0 |
| NS-13 | Material and Equipment Use Over Water | 19 | 5 | 26 | 70 | 29 |
| NS-14 | Concrete Finishing | 3 | 2 | 67 | 0 | 7 |
| NS-15 | Structure Demolition/Removal Near Water | 2 | 0 | 0 | 33 | 0 |
| **TOTAL NS** | | **236** | **81** | **34** | **16** | **14** |

| Table 4-3B. Summary of Sediment Control BMPs | | | | | | |
|---|---|---|---|---|---|---|
| BMP Name | Description | 2012 - 2013 | | | 2011 - 2012 | 2010 - 2011 |
| | | No. Reviewed | No. Deficiencies | % Deficient | % Deficient | % Deficient |
| SC-1 | Silt Fence | 321 | 107 | 33 | 13 | 16 |
| SC-2 | Sediment/Desilting Basin | 14 | 1 | 7 | 0 | 0 |
| SC-3 | Sediment Trap | 49 | 2 | 4 | 0 | 0 |
| SC-4 | Check Dam | 323 | 59 | 18 | 19 | 23 |
| SC-5 | Fiber Rolls | 237 | 91 | 38 | 14 | 15 |
| SC-6 | Gravel Bag Berm | 125 | 11 | 9 | 0 | 6 |
| SC-8 | Sandbag Barrier | 2 | 0 | 0 | 0 | 67 |
| SC-9 | Straw Bale Barrier | 20 | 2 | 10 | 0 | 0 |
| SC-10 | Storm Drain Inlet Protection | 545 | 125 | 23 | 14 | 15 |
| | **TOTAL SC** | **1,636** | **398** | **24** | **13** | **17** |

| Table 4-3C. Summary of Soil Stabilization BMPs | | | | | | |
|---|---|---|---|---|---|---|
| BMP Name | Description | 2012 – 2013 | | | 2011 - 2012 | 2010 - 2011 |
| | | No. Reviewed | No. Deficiencies | % Deficient | % Deficient | % Deficient |
| SS-1 | Scheduling | 0 | 0 | 0 | 43 | 31 |
| SS-2 | Preservation of Existing Vegetation | 158 | 16 | 10 | 0 | 1 |
| SS-3 | Hydraulic Mulch | 89 | 23 | 26 | 12 | 6 |
| SS-4 | Hydroseeding | 12 | 0 | 0 | 0 | 0 |
| SS-5 | Soil Binders | 21 | 1 | 5 | 20 | 0 |
| SS-6 | Straw Mulch | 103 | 21 | 20 | 0 | 25 |
| SS-7 | Geotextiles, Plastic Covers, Erosion Cont Blankets | 139 | 31 | 22 | 4 | 6 |
| SS-8 | Wood Mulching | 3 | 0 | 0 | 0 | 0 |
| SS-9 | Earth Dikes/Drainage Swales & Lined Ditches | 24 | 1 | 4 | 0 | 29 |
| SS-10 | Outlet Protection/Velocity Dissipation Devices | 13 | 4 | 31 | 20 | 0 |
| SS-11 | Slope Drains | 30 | 1 | 3 | 50 | 0 |
| SS-12 | Streambank Stabilization | 0 | 0 | 0 | 0 | 0 |
| | **TOTAL SS** | **592** | **98** | **17** | **16** | **12** |

**In 2012-2013, Table 4-3C shows that the percentage of deficient soil stabilization BMPs (17%) are less than the average of all BMPs (28%) presented in Tables 4-1 and 4-2. In 2012-2013, outlet protection/velocity dissipation devices (SS-10) and hydraulic mulch (SS-3) reported higher than or equal to average deficient percentages (31% and 26%, respectively). Excluding SS-10 and SS-3, the remaining soil stabilization BMPs have deficiencies ranging from 22% to 0%, below the overall BMP average of 28%.**

| Table 4-3D. Summary of Other BMPs (Tracking Control, Wind Erosion, Waste Management) | | | | | | |
|---|---|---|---|---|---|---|
| BMP Name | Description | 2012 – 2013 | | | 2011 - 2012 | 2010 - 2011 |
| | | No. Reviewed | No. Deficiencies | % Deficient | % Deficient | % Deficient |
| TC-1 | Stabilized Construction Entrance/Exit | 119 | 35 | 29 | 13 | 13 |
| TC-2 | Stabilized Construction Roadway | 31 | 0 | 0 | 0 | 10 |
| TC-3 | Entrance/Outlet Tire Wash | 3 | 0 | 0 | 0 | 0 |
| TC-4 | Street Sweeping and Vacuuming | 51 | 24 | 47 | 12 | 5 |
| **TOTAL TC** | | **204** | **59** | **29** | **11** | **9** |
| WE-1 | Wind Erosion Control | 28 | 6 | 21 | 0 | 2 |
| **TOTAL WE** | | **28** | **6** | **21** | **0** | **2** |
| WM-1 | Material Delivery and Storage | 138 | 39 | 28 | 12 | 4 |
| WM-2 | Material Use | 22 | 4 | 18 | 0 | 9 |
| WM-3 | Stockpile Management | 214 | 82 | 38 | 28 | 27 |
| WM-4 | Spill Prevention and Control | 178 | 95 | 53 | 46 | 35 |
| WM-5 | Solid Waste Management | 251 | 129 | 51 | 14 | 13 |
| WM-6 | Hazardous Waste Management | 51 | 35 | 69 | 0 | 27 |
| WM-7 | Contaminated Soil Management | 4 | 2 | 50 | 22 | 0 |
| WM-8 | Concrete Waste Management | 99 | 53 | 54 | 11 | 6 |
| WM-9 | Sanitary/Septic Waste Management | 208 | 10 | 5 | 2 | 2 |
| WM-10 | Liquid Waste Management | 5 | 3 | 60 | 17 | 0 |
| **TOTAL WM** | | **1,170** | **452** | **39** | **16** | **13** |

In 2012-2013, Table 4-3D shows that the percentage of deficient tracking control, wind erosion and waste management BMPs are 29%, 21% and 39% respectively; comparable to the average of all BMPs (i.e., 28%) presented in Tables 4-1 and 4-2. In 2012-2013, reported percentage of deficiencies for waste management BMPs were significantly higher, respectively, than reported in 2011-2012. In 2012-2013, eight waste management BMPs, reported a higher than average percentage deficiencies percentage; hazardous waste management (WM-6; 69%), liquid waste management (WM-10; 60%), solid waste management (WM-5; 51%), spill prevention and control (WM-4, 53%), concrete waste management (WM-8; 54%), stockpile management (WM-3; 38%), contaminated soil management (WM-7; 50%), and material delivery and storage (WM-1; 28%).

### 4.1.1 BMP Performance Trends Over Time

Figure 4-3 shows the performance of BMPs over time for the 2010-2011, 2011-2012 and 2012-2013 construction seasons. Figure 4-3 compares fifteen BMPs with the most deficiencies over time to assess BMP performance trends over time.

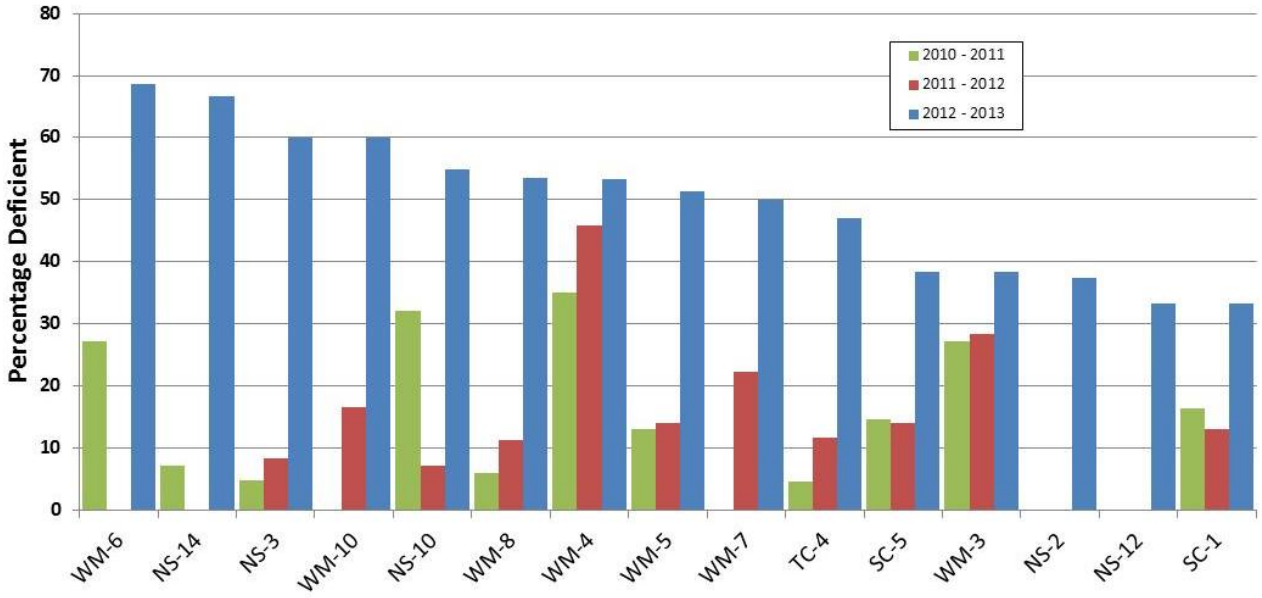



Figure 4-3. BMP Performance Trends over Time

Figure 4-3 shows that in 2012-2013 all stormwater BMPs had higher percentage of deficient BMPs compared to 2011-2012 and 2010-2011.

In 2012-2013, a total of 3,866 stormwater BMPs were evaluated. The total number of BMP reviewed is approximately triple the number of BMPs reviewed in 2011-2012 (1,330 BMPs reviewed). The increased number of BMPs reviewed as deficient during 2012-2013 must consider the changes in CCEP review procedures implemented in 2012-2013 (see Section 2.5).

## 4.2 Contract Administration Effectiveness

The trends for contract administration deficiencies observed in 2012-1013 are summarized in this section. Table 4-4 lists alpha BMP types associated with contract administration deficiencies. Table 4-4 provides a short description and sorts these alpha BMPs from most to fewest deficiencies. Figure 4-4 summarizes all deficient alpha BMPs in 2012-2013.

| Table 4-4. Summary of Alpha BMPs Reviewed | | | | |
|---|---|---|---|---|
| Alpha BMP Name | Description | No. Reviewed | No. Deficient | % Deficient |
| Site Inspections | Adequacy of Inventory of Materials and Waste Management Containers | 443 | 107 | 24 |
| SWPPPs/WPCPs | Adequacy of SWPPPs/WPCPs Contract Administrative Requirements, Dewatering | 1,164 | 92 | 8 |
| Scheduling | SWPPP/WPCPs Schedule Adequacy | 149 | 36 | 24 |
| REAPs | Adequacy of REAP Including Implementation and Documentation | 388 | 31 | 8 |
| Training | Training Adequacy of WPCM and Contractors | 157 | 18 | 11 |
| DSAs | Inactive DSAs Properly Managed | 78 | 12 | 15 |
| Pre-Construction | Documentation of Stormwater Discussion at Pre-Construction Meetings | 151 | 12 | 8 |
| Discharges | Adequacy of Discharges Reporting | 119 | 5 | 4 |
| NALs, NELs | NAL/NEL Exceedance Reporting | 36 | 2 | 6 |
| **TOTAL ALPHA** | | **2,685** | **315** | **12** |

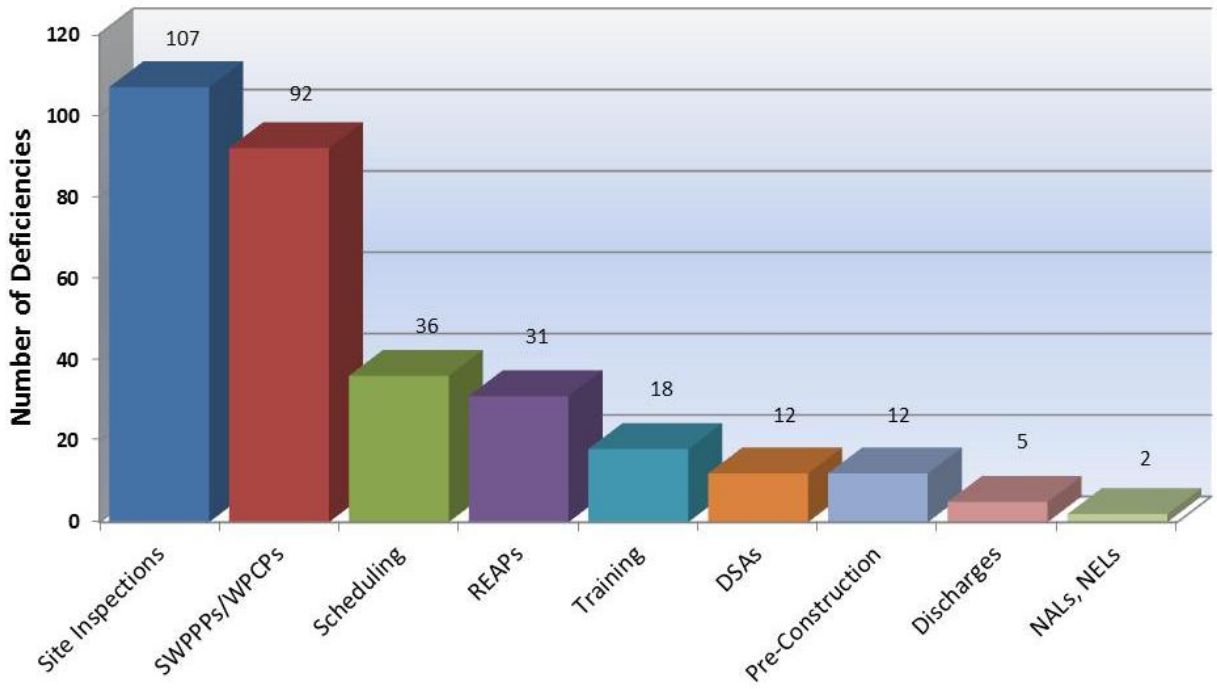



Figure 4-4. Alpha BMPs – Sorted by Number of Deficiencies

Table 4-4 shows that 315 out of 2,685 (12%) of all alpha BMPs reviewed in 2012-2013 were rated as deficient. Figure 4-4 shows that site inspection reporting had the most alpha in deficiencies reported 107 of 443 (24%). Contract administrative documentation deficiencies associated with SWPPP/WPCP adequacy listed 92 of 1,164 (8%) deficiencies.

**Three alpha BMPs were reviewed over 200 times; partially explaining why a large number of deficiencies are associated with one particular alpha BMP. Table 4-5 and Figure 4-5 present 2012-2013 alpha BMP deficiencies compared to previous years, 2011-2012 and 2010-2011.**

**Table 4-5. Trends in Alpha Deficiencies**

| Alpha BMP Name | Description | 2012 – 2013 (deficient/total) [%] | 2011 – 2012 (deficient/total) [%] | 2010 – 2011 (deficient/total) [%] |
|---|---|---|---|---|
| Site Inspections | Adequacy of Inventory of Materials and Waste Management Containers | 107/443 [24%] | 8/84 [22%] | 2/144 [1%] |
| SWPPPs/WPCPs | Adequacy of SWPPPs/WPCPs Contract Administrative Requirements, Dewatering | 92/1164 [8%] | 10/168 [12%] | 14/288 [10%] |
| Scheduling | SWPPP/WPCPs Schedule Adequacy | 36/149 [24%] | 49/60 [82%] | 93/115 [81%] |
| REAPs | Adequacy of REAP Including Implementation and Documentation | 31/388 [8%] | 0/84 [0%] | 0/144 [0%] |
| Training | Training Adequacy of WPCM and Contractors | 18/157 [11%] | 24/84 [29%] | 14/144 [10%] |
| Pre-Construction | Documentation of Stormwater Discussion at Pre-Construction Meetings | 12/151 [8%] | 0/84 [0%] | 0/144 [0%] |
| DSAs | Inactive DSAs Properly Managed | 12/78 [15%] | 0/84 [0%] | 0/144 [0%] |
| Discharges [1] | Adequacy of Discharges Reporting | 5/119 [4%] | -- | -- |
| NALs, NELs [1] | NAL/NEL Exceedance Reporting | 2/36 [6%] | -- | -- |

*[1] New data collected in 2012-2013*

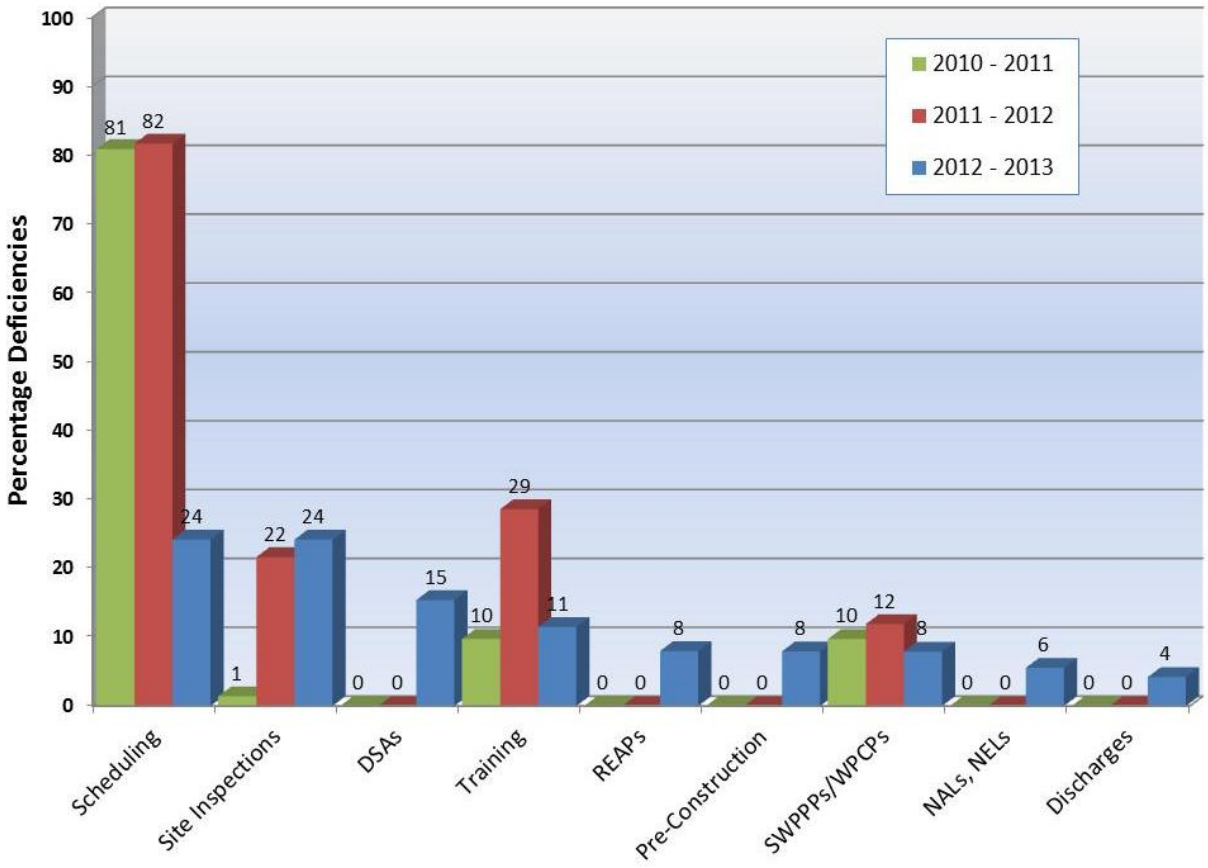



Figure 4-5. Alpha BMPs - Sorted by Percentage of Deficienies

Table 4-5 and Figure 4-5 show that the highest percentage of alpha BMP deficiencies in 2012-2013 are associated with scheduling (24%), site inspections (24%) and inactive disturbed soil areas (DSAs; 15%). In 2012-2013, all other alpha BMP categories had a lower than average (14%) percentage of deficiencies.

# 5. Conclusion

This *Year-End Performance Report – August 2013 (YEPR)* summarizes construction project stormwater compliance reviews conducted between July 1, 2012 and June 30, 2013. These reviews were conducted in accordance with the July 2008 *Construction Compliance Evaluation Plan (CCEP).* Sections 1.0 and 2.0 of this YEPR provided the background and methodology for these reviews. In 2012-2013, Caltrans implemented changes to the July 2008 CCEP to respond to new Caltrans Statewide NPDES Permit and CGP requirements, as discussed in Section 2.5.

Section 3.0 presented a performance assessment of overall construction project reviews, for the current 2012-2013 period, compared the previous two years. This comparison concluded that approximately 54% of all project reviews were rated 1A, 1B, 2A, 2B, for 2012-2013, which was less than the 82% of 1A, 1B, 2A, 2B ratings in the previous two years. The decline in the percentage of 1A, 1B, 2A, 2B site ratings must consider the changes in CCEP review procedures implemented in 2012-2013 to respond to new Statewide NPDES Permit and CGP requirements (discussed in Section 2.5).

Section 4.0 analyzed trends in the data. Overall, in 2012-2013, a total of 1,094 deficiencies were recorded out of 3,866 (28%) BMPs reviewed. The 3,866 BMPs reviewed in 2012-2013 was almost triple the number of BMPs reviewed in 2011-2012 (1,330 BMPs reviewed). The percentage of deficient BMPs in 2012-2013 (average 28% BMP deficiencies) was higher than 2011-2012 (average 14% BMP deficiencies) and 2010-2011 (average 13% BMP deficiencies). However, comparisons with previous years must consider the changes in CCEP review procedures implemented in 2012-2013 to respond to new Statewide NPDES Permit and CGP requirements (discussed in Section 2.5).

For contract administrative documentation requirements (alpha BMPs), a total of 315 deficiencies out of 2,685 total (12%) were reviewed in 2012-2013. The number of alpha BMPs reviewed in 2012-2013 (2,685) also increased above the number reviewed in 2011-2012, when 891 alpha BMPs were reviewed. Despite the additional documentation required in 2012-2013 (REAPs, NAL, NEL Exceedance Reports), frequencies of contract administrative deficiencies were lower in 2012-2013 (average 12% alpha deficiencies) compared to 2011-2012 (average 18% alpha deficiencies) and approximately equal in 2010-2011 (average 12% alpha deficiencies).

The increased number of stormwater BMPs reviewed in 2012-2013 and contract administrative documentation requirements (almost triple the number of stormwater and alpha BMPs reviewed) resulted in a higher percentage of stormwater BMP deficiencies, but a lower percentage of alpha BMP deficiencies compared to previous years. However, comparisons with previous years must consider the changes in CCEP review procedures implemented in 2012-2013 to respond to new Statewide NPDES Permit and CGP requirements (discussed in Section 2.5).