

Orange County Transportation Authority

Performance Audit of OCTA's Storm Water Pollution Prevention Program (SWPPP)

July 2017



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Executive Summary

The Water Pollution Control Act (Clean Water Act) provides the California Water Boards with the authority and framework for regulating storm water discharges under the National Pollutant Discharge Elimination System Permitting Program. The Santa Ana Regional Water Quality and Control Board regulates storm water runoff for Orange County Transportation Authority's (OCTA) facilities and activities through two key statewide storm water permits:

- Industrial General Permit (IGP) regulates storm water discharges from industrial facilities.
- Construction General Permit (CGP) regulates storm water discharges associated with projects that disturb one or more acres of soil.

Both permits require dischargers to develop storm water pollution prevention plans (SWPPP) that describe practices in place to ensure storm water discharges comply with regulatory levels specified in the permits.

Our review of OCTA's compliance with the permits found that OCTA generally complied with the IGP and the CGP. Related to the IGP, our observations from the site visits of the five bus bases, review of documents, and limited testing found that OCTA implemented the required SWPPPs, employed best management practices, performed site observations, conducted sampling, etc. However, we found that OCTA could improve its compliance with the IGP in the following areas:

- Minor Improvements to the SWPPPs are Necessary.
- Additional Documentation Could Improve Sampling Processes.
- Unauthorized Non-Storm Water Discharges Exist, but Improvements Underway.
- Use of the Ellipse Job Tracking System Could be Expanded.

Related to the CGP, we found that OCTA filed Permit Registration Documents (PRDs) and Notice of Terminations (NOTs) in accordance with permit requirements and SWPPPs were developed by Qualified SWPPP Developers and addressed all key permit objectives. However, we found that OCTA could improve its compliance with the CGP in the following areas:

- Cooperative Agreements Could Better Define Project Responsibilities Related to Compliance with the CGP.
- Key Site Inspections and Sampling Activities Did Not Always Meet Requirements.
- Minor Annual Reporting Improvements were Necessary.
- Some SWPPP Training Documents Could Not Be Provided.
- OCTA Could Further Utilize its Health, Safety, and Environmental Compliance Group to Better Ensure Compliance with the CGP.

The report includes ten recommendations for OCTA to consider to enhance SWPPP compliance, including the following key recommendations:

- Establish a formal process in which technicians maintain documentation supporting why samples could not be collected during a sampling period.
- Continue efforts to eliminate the unauthorized non-storm water discharges related to the bus washes.
- Ensure cooperative agreements clarify roles and responsibilities of all individuals and entities associated with compliance with the CGP.
- Enhance oversight of contractors and personnel carrying out SWPPP related monitoring activities, particularly related to site inspections, sampling, reporting, etc. OCTA should also ensure that agreements with contractors tasked with SWPPP activities include retention requirements.
- Increase Health, Safety and Environmental Compliance (HSEC) group's participation with construction projects and activities to ensure compliance with the CGP.

Objectives, Scope, and Methodology

Sjoberg Evashenk Consulting was hired by the Orange County Transportation Authority (OCTA) to conduct a performance audit to assess the adequacy of OCTA's Storm Water Pollution Prevention Plan (SWPPP) for compliance with the State's Industrial General Permit (IGP) and Construction General Permit (CGP).

The audit was to include testing of OCTA's compliance with key requirements of the IGP, including, but not limited to, development of a SWPPP, monthly observations, storm water sampling, and required submissions to the Storm Water Multiple Application and Report Tracking System (SMARTS). For CGPs, the audit was to evaluate OCTA's program to ensure adequate controls for identifying applicable projects and taking appropriate actions to ensure compliance with permit requirements.

The audit period was July 1, 2014 to June 30, 2016.

To meet the audit objectives, we performed the following audit steps and tasks:

General Tasks

- Reviewed provisions and requirements of the Statewide IGP and CGP, including pertinent program information available on the State's Water Resources Control Board website.
- Performed numerous interviews with key OCTA management and staff, including the following:
 - Manager, Health, Safety, and Environmental Compliance Group
 - Environmental Compliance Specialist, Health, Safety, and Environmental Compliance Group
 - Maintenance Managers, Transit Division Maintenance Department
 - Base Managers, Transit Division Maintenance Department
 - Section Manager and Facilities Staff, Transit Division Maintenance Department
 - Construction Management Program Manager, Capital Programs Division
 - Project Manager, Capital Programs Division Highway Programs
 - Facilities Engineering Manager, Capital Programs Division

Identified and discussed with OCTA staff compliance issues identified and determined if mitigating policies or procedures are in place.

IGP Tasks

- Obtained and reviewed SWPPPs for each of the five bus bases.
- Conducted site visit walkthroughs at each of the five OCTA bus bases focusing on key SWPPP and IGP required activities.
- Performed testing related to processes associated with SWPPP development; monitoring and inspections; sampling; and submissions to SMARTS system.

CGP Tasks

- Reviewed OCTA's Capital Action Plan to identify the types of construction projects underway or planned, which largely consists of the following three types of projects: Freeway, Rail/Station, and Grade Separation.
- From the projects reflected on the Capital Action Plan with active construction activity during the audit timeframe, selected construction projects to perform compliance testing with the CGP:
 - Freeway—because the California Department of Transportation (Caltrans) and its contractors have the major responsibilities on the Freeway projects and Caltrans assumed the responsibility as the Legally Responsible Person (LRP), we did not perform detailed testing of compliance with the construction general permit on the freeway projects reflected on OCTA's Capital Action Plan.
 - Rail/Station—because there was only one rail/station project under construction and covered under the construction general permit and OCTA's role for this project was limited to serving as a pass-through for funding, we did not perform detailed testing of compliance with the construction general permit on Rail/Station projects reflected on OCTA's Capital Action Plan.
 - Grade Separation—there were six grade separation projects with active construction activity reflected on OCTA's Capital Action Plan and for which OCTA was responsible for construction activities, including certain CGP compliance. Of these six projects, we selected two for review. Note: We did not review the responsibilities assumed by outside entities related to compliance with the CGP, such as the city's responsibilities associated with either acting as the legally responsible person or submitting information into SMARTS.
- We also reviewed one Facilities Engineering project on OCTA owned property that did not meet the criteria to be included on OCTA's Capital Action Plan but was covered under the State's construction general permit.
- Obtained and reviewed SWPPPs for each of the selected construction projects.
- Performed testing related to processes associated with SWPPP development; monitoring and inspections; sampling; and submissions to SMARTS system (where applicable).

We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Chapter 1: Industrial General Permit

The Federal Clean Water Act prohibits discharges from point sources to waters of the United States, unless the discharges are in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. On April 17, 1997, the California State Water Resources Control Board issued a statewide NPDES Industrial General Permit (IGP) to regulate industrial storm water discharges and authorized non-storm water discharges (NSWDs) from industrial facilities. The 1997 permit was updated in 2014 and became effective on July 1, 2015. The general permit covers many industrial facilities, but compliance with the requirements is the responsibility of the individual facilities. Industrial facilities that are covered under the permit includes manufacturers, hazardous waste facilities, transportation facilities with vehicle maintenance, and recycling facilities.

The IGP has the following key requirements:

- Eliminate unauthorized non-storm water discharges.
- Develop and implement Storm Water Pollution Prevention Plans (SWPPPs) that include minimum best management practices to achieve compliance with the effluent and receiving water limitations.
- Conduct monitoring, including visual observations and sampling.
- Perform the appropriate Exceedance Response Actions (ERAs) when limits are exceeded.
- Electronically submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS).
- Implement a comprehensive training program for individuals assisting dischargers with compliance of the permit.

For coverage under the IGP, an industrial facility owner or operator, i.e. Legally Responsible Person (LRP), must submit a Notice of Intent (NOI) to the State Water Resources Control Board for each facility. The LRP is responsible for all permit related activities at the facility. Additional permit related documents (PRDs) that the LRP must submit include:

- SWPPPs,
- Annual Reports,
- Level 1 ERA Reports, and
- Notices of Termination (NOTs).

The Orange County Transportation Authority (OCTA) owns five bus transportation facilities with maintenance activities located in:

- Santa Ana,

- Garden Grove,
- Anaheim,
- Irvine—Sand Canyon, and
- Irvine—Construction Circle.

While OCTA handles the facilities operations at all five of the bus bases, it oversees maintenance activities at only the Santa Ana and Garden Grove locations. For the remaining three bus base locations, OCTA has contracted with third-party vendors to perform the maintenance operations. Since industrial activity, i.e. bus maintenance and repair, takes place at each of the five bus bases, discharges at each site is regulated by the IGP.

An Environmental Compliance Specialist within OCTA's Health, Safety, and Environmental Compliance group is responsible for managing, overseeing, and monitoring activities undertaken by facility technicians to ensure full compliance with the IGP. Additionally, facility technicians located at each of the five bus bases are responsible for completing specific activities at regular intervals in order to comply with the IGP. This includes conducting daily monitoring of the implementation of best management practices (BMPs), collecting samples, and identifying any unauthorized non-storm water discharges from the facility area, such as an oil leak.

Overall, we found that OCTA generally complied with the IGP, including demonstrating knowledge of permit and SWPPP requirements. For example, our observations from the site visits of the five buses bases, review of documents, and limited testing found that OCTA complied with the following IGP requirements:

- Implemented SWPPPs—with a few minor exceptions discussed later, the bus bases had SWPPPs that generally included the required information, such as facility name and contact information; site map; list of industrial materials; description and assessment of potential pollution sources; and minimum BMPs.
- Employed Best Management Practices—the bus bases' facility staff had implemented the required core best management practices, which included items such as good housekeeping (dry sweeping of particulates and covering industrial bins); preventative maintenance (such as inventory of potential spill points); spill and leak prevention response (drain spill covers used in fueling and brake check activities); material handling and waste management (all maintenance is handled inside covered buildings); and erosion and sediment controls (landscaping and mulching).
- Performed Visual Observations—the bus bases' facility staff performed and documented the required monthly dry visual observations, which included evaluating BMPs and identifying unauthorized non-storm water discharges and other sources of industrial pollutants, etc. Additionally, OCTA's Environmental Compliance Specialist conducts a similar site observation every 30-60 days.

- **Performed Exceedance Response Actions**—Four bus base locations reported sampling exceedances during 2016; in response, all required measures were taken, such as the compilation of an ERA report and evaluation by a Qualified Industrial Storm Water Practitioner (QISP) certified professional, as well as the implementation of improved or additional BMPs.
- **Administered Employee Training**—OCTA provided the required employee training to ensure that staff were properly trained to implement the IGP requirements. The annual training was conducted by a certified QISP and included general permit updates, BMPs, hazardous materials spills response, and activity documentation.
- **Submitted Documents into SMARTS**—OCTA submitted required documents into SMARTS, such as the SWPPPs, Annual Reports, Level 1 ERA Reports, and sampling lab results.

Additionally, the Environmental Compliance Specialist recently obtained the QISP certification, which provides OCTA with the necessary training and expertise to directly administer industrial storm water training and oversee exceedance response actions rather than relying on external consulting firms for these services.

However, we found that OCTA could improve its compliance with the IGP in the following areas:

- **Minor Improvements to the SWPPPs are Necessary**
- **Additional Documentation Could Improve Sampling Processes**
- **Unauthorized Non-Storm Water Discharges Exist, but Improvements Underway**
- **Use of the Ellipse Job Tracking System Could be Expanded**

Minor Improvements to the SWPPPs are Necessary

While we found that the five bus bases had implemented the required SWPPPs and the plans generally included the required information, we found that a few minor improvements were necessary related to ensuring operating hours and SWPPP preparation dates are explicitly documented in the plans and ensuring copies of the SWPPPs are maintained at each facility.

Specifically, the IGP requires that dischargers document in their SWPPP the facility's scheduled operating hours, which is defined as "The time periods when the facility is staffed to conduct any function related to industrial activity..." While bus maintenance activities occur 24/7 at each of the bus bases, we found that these hours were not specifically stated in the SWPPPs of any of the five bus bases. According to OCTA staff, the facility technicians are only available from 5:00 am to 3:30 pm Monday through Friday, which establishes when SWPPP compliance activities can take place, but does not cover all of the hours that the industrial (bus maintenance) activities occur. Nonetheless, the IGP requires that the SWPPP document the time periods when the facility conducts any function related to industrial activity, which is conducted at OCTA bus bases 24/7.

Additionally, during our site visits at each of the bus base locations, we found that four of the five bus facilities maintained a copy of the SWPPP on-site as required by the IGP; however, one bus base was unable to locate a copy of the SWPPP. To make certain staff have the needed SWPPP resources and information closely accessible at all times and to be better prepared for surprise audit visits by the State Water Resources Control Board, OCTA should ensure that copies of the SWPPPs are maintained at all five bus base facilities.

Furthermore, the IGP requires that SWPPPs contain the date that the SWPPP was initially prepared. We found the dates that the SWPPPs were initially prepared were not included within the SWPPP documentation for any of the five bus bases. Providing a date for when each SWPPP was prepared will eliminate any disputes or questions that may arise from the State Water Resources Control Board in regards to verifying when amendments to the SWPPP were made, or if the SWPPP is current.

Additional Documentation Could Improve Sampling Processes

The IGP requires that dischargers collect and analyze storm water samples from two qualifying rain events within the first half of each reporting year (July 1 to December 31), and two QREs within the second half of each reporting year (January 1 to June 30). If there are no qualifying events during the sampling period or if there are dangerous weather conditions during the QRE, sampling cannot be performed.

At each of the five bus bases, we performed a high-level review of the sampling processes, including conducting interviews with staff performing sampling activities and reviewing the testing results logs. We found that each of the five bus bases had consistent processes in place to conduct the bi-annual required testing.

Additionally, we selected one facility to perform detailed verification of the documentation supporting the sampling log information and results that is maintained at the facility and submitted into SMARTS. During the 2015-2016 reporting year, we found that the bus base tested had documentation related to the sampling process associated with only one QRE during each of the two six-month sampling periods rather than documentation showing that the required two QREs were tested from each sample period. When asked why only one QRE was sampled during each sampling period instead of two, OCTA was unable to provide any support or documentation that would explain the discrepancy. OCTA staff indicated it is likely that there was not a second QRE that occurred during the periods and, in that case, additional samples could not be collected. Also, according to OCTA staff, there is currently not a process in place at any of the five bus bases where technicians document why sampling activities could not be performed. In the event the State Water Resources Control Board questioned OCTA as to why the required number of samples were not collected, OCTA should establish a formal process in which technicians maintain documentation supporting why samples could not be collected during a sampling period to avoid potential future noncompliance.

Unauthorized Non-Storm Water Discharges Exist, but Improvements Underway

The IGP describes that unauthorized Non-Storm Water Discharges (NSWDs), such as wash water and irrigation overflow, are prohibited. During our site visits, we were informed by OCTA staff that unauthorized NSWDs existed at each of the bus bases related to excess water run-off from buses after they have gone through the bus wash. OCTA is in the process of resolving the issues by implementing a water capture system that will trap all water run-off, and recycle the run-off for reuse within the bus wash system. We were told during interviews with OCTA staff that the capture systems are slated to be completed at all 5 bus base locations by the summer of 2017. Furthermore, OCTA staff has reported the unauthorized NSWD to the State Water Resources Control Board, and has notified the State Water Resources Control Board of the capture system that is in the process of being implemented.

Use of the Ellipse Job Tracking System Could be Expanded to Improve Tracking

OCTA's Ellipse job tracking system produces a number of daily, weekly, and monthly tasks that must be completed by employees. Depending on how a task was programmed into Ellipse, the system will generate work orders at specified intervals according to the desired completion date. Work orders contain detailed steps as to how the task must be completed by technician staff. Once a work order has been completed, technicians enter updates in the Ellipse system indicating that the task has been completed.

The majority of tasks in Ellipse relate to maintaining the facility building, systems, and assets and include weekly shop inspections, weekly and monthly parts washing, and preventative maintenance bus inspections. Other tasks in Ellipse relate to storm water general permit compliance activities, such as monthly storm water inspections and storm drain filter cleaning. We noted that there are additional storm water tasks related to BMPs that could be incorporated into the Ellipse system to facilitate better tracking and documentation that storm water-related tasks have been completed. After our discussions with the Environmental Compliance Specialist regarding this opportunity for improvement, we were informed that expansion of Ellipse is underway related to the following storm water tasks: verifying contracted sweeping, pressure washing and steam cleaning services.

Chapter 1 Recommendations:

To improve compliance with the IGP and benefit from opportunities for improvement, OCTA should consider the following:

1. Document in the SWPPPs the time periods when the bus bases conduct any function related to industrial activity.

Management Response: SWPPPs will be revised to describe time periods when bus bases conduct industrial activity. Maintenance staff will be included as SWPPP team members.

2. Ensure that a copy of the SWPPP is maintained at each bus base facility.

Management Response: Hard copies of SWPPP will be maintained at each bus base facility in addition to electronic copies. Each hard copy will be singularly identifiable and OCTA SWPPP members will be notified/trained of their locations.

3. Document the date that each SWPPP was initially prepared.

Management Response: SWPPPs will be revised to include the date that each SWPPP were initially prepared.

4. Establish a formal process in which technicians maintain documentation supporting why samples could not be collected during a sampling period.

Management Response: Monitoring forms used by technicians will be revised to provide supporting documentation/verbiage on why samples could not be collected during a qualified sampling event.

5. Continue efforts to eliminate the unauthorized non-storm water discharges related to the bus washes.

Management Response: Bus wash water track-out capturing systems are expected to be finished and operable by August 2017.

6. Continue efforts to expand the use of the Ellipse system to include additional storm water-related tasks.

Management Response: Current Ellipse work orders related to storm water pollution prevention have been updated and modified. New expanded work orders will be established within Ellipse by August 2017.

Chapter 2: Construction General Permit

On September 2, 2009, the California State Water Resources Control Board adopted the current statewide National Pollution Discharge Elimination System Construction General Permit (CGP) to regulate construction-related storm water discharges and authorized non-storm water discharges. The permit became effective on July 1, 2010 and was later amended in 2010 and 2012. The CGP generally covers construction or demolition projects that disturb one acre or more of land and includes activities such as clearing, grading, stockpiling, and excavation.

The CGP key requirements, which are similar to the Industrial General Permit (IGP), include eliminating unauthorized non-storm water discharges, developing and implementing Storm Water Pollution Prevention Plans (SWPPPs) and Best Management Practices (BMPs), conducting visual observations and sampling, performing the appropriate actions when limits are exceeded, submitting permit-related compliance documents via Storm Water Multiple Application and Report Tracking System (SMARTS), and ensuring individuals assisting dischargers with compliance of this permit are properly trained.

Similar to the IGP, for coverage under the CGP, a project proponent, i.e. Legally Responsible Person (LRP), must submit a Notice of Intent (NOI) to the State Water Resources Control Board prior to the commencement of construction activity. The LRP is responsible for all permit related activities associated with the project and must submit permit registration documents (PRDs) into SMARTS, such as SWPPPs, annual reports, sampling test results, and Notices of Termination (NOTs).

Most of the Orange County Transportation Authority's (OCTA) construction-related projects subject to the CGP are managed through the Capital Programs Division and are reflected on OCTA's Capital Action Plan. OCTA's Capital Action Plan largely consists of the following three categories of construction projects:

- Freeway,
- Rail/Station, and
- Grade Separation projects.

OCTA's role in these projects vary widely from simply passing through federal funding to local agencies to overseeing and managing the construction phase of projects. The audit focused on projects with construction activities occurring during July 1, 2014 to June 30, 2016 that were subject to the CGP, and where OCTA had a role in complying with CGP requirements. As a result,

we did not review in detail either OCTA's freeway¹ projects or Rail/Station² projects. We focused our review efforts on grade separation projects where OCTA was responsible for construction activities—there were six grade separation projects; of these six projects, we selected two for review. We also reviewed one facilities engineering project on OCTA owned property that did not meet the criteria to be included on OCTA's Capital Action Plan, but was covered under the State's construction general permit.

Overall, we found that OCTA generally complied with sections of the CGP, such as:

- PRDs were filed in accordance with permit requirements
- NOTs were filed in accordance with permit requirements
- SWPPPs were developed by Qualified SWPPP Developers (QSDs)
- SWPPPs addressed all key permit objectives

However, we found that OCTA could improve its compliance with the CGP in the following areas:

- Cooperative Agreements Could Better Define Project Responsibilities Related to Compliance with the CGP
- Key Site Inspection Activities Did Not Always Meet Requirements
- Key Sampling Activities Did Not Always Meet Requirements
- Minor Annual Reporting Improvements Necessary
- Some SWPPP Training Documents Could Not Be Provided
- OCTA Could Further Utilize its Health, Safety, and Environmental Compliance Group to Better Ensure Compliance with the CGP

Cooperative Agreements Could Better Define Project Responsibilities Related to Compliance with the CGP

OCTA could better define project responsibilities in the cooperative agreements entered into with local entities (i.e. cities) when assisting with their construction grade separation project, particularly related to compliance with the CGP. Aside from project funding, the City is typically responsible for pre-construction activities (environmental, design, right-of-way acquisition, utility relocation) and OCTA is often responsible for construction activities, including overseeing construction management and hiring construction contractors that are tasked with CGP compliance

¹ Caltrans and its contractors have the major responsibilities on the freeway projects and Caltrans assumed the responsibility as the Legally Responsible Person.

² There was only one rail/station project under construction and covered under the construction general permit during the period of the audit and OCTA's role on this project was limited to serving as a pass-through for funding.

activities. For the two grade separation projects we reviewed, the following outlines the key construction-related responsibilities of a City and OCTA:

City

- Obtaining certain permits such as Caltrans encroachment permits and California Public Utility Commission permits.
- Ensuring Compliance with the State's CGP, including submitting a NOI to comply with the terms CGP and certifying and submitting all required permit-related documents into SMARTS. Most importantly, assuming the responsibility of the Legally Responsible Party to make certain the construction projects comply with the State's construction general permit requirements.

OCTA

- Managing multiple grade separation projects, which includes overseeing environmental clearances, engineering, right of way acquisitions, and construction management and administration of construction contracts.
- Hiring construction contractor responsible for:
 - ✓ Performing construction activities.
 - ✓ Complying with the CGP, including preparing and submitting a SWPPP, performing good housekeeping activities, maintaining Best Management Practices, and conducting on-site inspections and sampling activities.
- Hiring construction management consultant responsible for providing OCTA with staff assistance and technical expertise with project management during the construction phase, including:
 - ✓ Communicating between construction contractor and all other project participants; performing quality assurance inspection services of construction contractor's work; preparing daily construction activity reports and performs control point and benchmark surveying; and reviewing construction contractor's progress payments and processes change order requests.
 - ✓ Providing oversight of the construction contractor's compliance with the CGP, including reviewing the submitted SWPPP and providing comments and acceptance or rejection determination; inspecting erosion control measures and prevention program work on a regular basis; performing and assisting in SWPPP compliance inspections; and ensuring the construction contractor corrected any deficiencies.
- Hiring construction program management consultant responsible for providing OCTA with staff assistance and technical expertise with project management during the construction phase, including pre-construction services, construction management oversight, and

program and project management assistance. Generally, the construction program management consultant does not have a significant role with compliance of the CGP.

While agreements between OCTA and contractors carrying out construction activities are quite detailed, the cooperative agreements between OCTA and the cities could better define certain project responsibilities related to compliance with the CGP. Specifically, the cooperative agreements typically outline funding arrangements and responsibilities such as:

- OCTA agrees to act as the lead agency for construction and construction management, including award construction-related contracts.
- City agrees to provide permits, plans, specifications, and estimates and will assume ownership of the project once the one year warranty period is over after completion of construction.

Our review of OCTA's and City cooperative agreements found that the agreements do not adequately detail each entity's responsibilities associated with compliance with the State's CGP, such as assuming the responsibility of the LRP, submitting permit-related documents to the State Water Resources Control Board, preparing and submitting a SWPPP, and performing on-site activities, such as BMPs, inspections, and sampling activities. Having the cooperative agreement clearly outline these responsibilities is particularly important since both the City and OCTA carry out major responsibilities related to CGP. According to OCTA, while the cooperative agreements do not specifically detail the responsibilities associated with compliance with the CGP, each of the responsibilities are informally agreed to between OCTA and the cities. Additionally, the assignment of some of the responsibilities, such as the LRP, are outlined in permit-related documents submitted to the State Water Resources Control Board. However, for one particular grade separation project reviewed, OCTA and the construction contractor were admittedly unclear as to who was the designated LRP. The designation of responsibility appeared to have changed during the course of the project. This can pose a significant problem if the duties in the cooperative agreements are outlined vaguely or are agreed upon informally.

Key Site Inspection Activities Did Not Always Meet Requirements

The CGP requires specific key routine site inspection activities during the construction phase of a project; our review of site inspection activities associated with two of OCTA's grade separation projects and one facilities engineering project found that they did not always meet the stated requirements. The key required site inspection activities are as follows:

- Weekly Site Inspections ensure best management practices are conducted correctly and effectively and identify any practices that require correction. The inspections are conducted with an inspection checklist and report of corrective actions is completed as needed. Information should be maintained in project files.
- Storm Event Inspections involves pre-storm event, daily storm event, and post-storm event inspections associated with a qualifying rain event to ensure best management practices are conducted effectively and identify any practices that require corrective actions. Conducted with an inspection checklist and report of corrective actions are completed as needed. Information should be maintained in project files and summarized in the Annual Report.
- Quarterly Non-Storm Water Site Inspections are conducted to ensure best management practices are conducted correctly and effectively and identify any practices that require correction, which implementation must begin within 72 hours. Additionally, the inspections are conducted to identify the presence of and source of authorized or unauthorized non-storm water discharges. Inspections are conducted with an inspection checklist and report of corrective actions completed as needed. Information should be maintained in project files and as well as summarized in the Annual Report submitted into SMARTS.

Pre-Storm Event Inspections:

conducted 48 hours prior to a rain event that has at least a fifty percent chance of producing precipitation.

Daily Storm Event Site Inspections:

conducted at least once each 24-hour period during a QRE.

Post-Storm Event Site Inspections:

conducted within 48 hours of a QRE.

For the two grade separation projects and one facilities engineering project selected for review, we analyzed the following activities during the construction phase of the projects for compliance with site inspection requirements:

- Fourteen weekly inspections—five for each of the two grade separation projects and four for the facilities engineering project.
- Five storm event inspections—two (out of ten possible) qualifying rain events for each of the grade separation projects and one (out of seven possible) qualifying rain events for the facilities engineering project.
- Six quarterly non-storm water inspections—two for each project.

Our analysis revealed that key site inspection activities reviewed did not always meet requirements. Specifically:

Weekly Site Inspections

Eight of the fourteen ³weekly site inspection reports selected for review were incomplete as they were missing key elements required by the CGP. Required elements include, but are not limited to, weather information, description of BMPs evaluated and any deficiencies noted, and site information. Our review found that seven weekly inspection reports reviewed were missing site information such as the approximate area of site exposed, disturbed soil area information, construction stage and completed activities, and listing corrective action taken on deficient BMPs. Additionally, one of the weekly site inspection reports was missing site photographs even though the report indicated that photographs had been taken. Although photographs are not required with every site inspection, the CGP requires that photos be provided within the report if photos were taken.

Storm Event Inspections

For four of the five ⁴qualifying rain events selected for review, OCTA staff was unable to provide sufficient documentation demonstrating that all required pre-storm event, daily storm event, and post-storm event site inspections were conducted. Related to two of the qualifying rain events, no documentation was provided that demonstrated any of the required pre-storm, daily, and post-storm site inspections were conducted. With regard to one rain event, the results from the pre-storm, daily, and post-storm site inspections that reportedly occurred over a four-day period were combined into a single report rather than the required separate reports for each site inspection. This makes it difficult to determine which of the three site inspections corresponded with the results documented in the single report.

Additionally, we found separately that there were ten post-storm site inspections ⁵conducted and reports completed that did not correspond with any rain events. Specifically, the ten post-storm inspection reports indicated that no QRE had occurred, or was predicted to occur, during the time the inspection was conducted. When OCTA was asked why post-storm inspections had been conducted when a QRE had not occurred, OCTA indicated that it was the construction contractor's standard independent method of SWPPP inspection reporting. As required by the CGP, post-storm inspections are only performed within 48 hours of a qualifying rain event.

Quarterly Non-Storm Water Inspections

Four of the six ⁶quarterly non-storm water inspection reports selected for review were provided; however, two of the six reports were not provided. The quarterly results were summarized for the

³ Four were from the facilities engineering project and four were from the two grade separation projects.

⁴ One was related to the facilities engineering project, while the other three were related to the two grade separation projects.

⁵ All ten were from the facilities engineering project.

⁶ All four were from the two grade separation projects.

two missing inspection reports within the corresponding annual reports indicating that no non-storm water discharges were observed.

For the four quarterly inspection reports provided, one was missing the required site information and another report indicated that a non-storm water discharge was observed, but no documentation was provided indicating that the required sampling was performed in response; two were missing documentation of observations for all established BMPs; and one report did not include the date the inspection was performed.

The CGP requires dischargers to maintain all SWPPP-related documentation for at least three years after the close of a project. OCTA staff were unable to provide some SWPPP-related documentation due to an information system breach that resulted in the loss of some critical files. OCTA staff reached out to the contractors responsible for SWPPP activities to obtain copies of these documents; however, the contractors failed to provide all of the needed documents. In one instance, the contractor was no longer in business. The agreements between OCTA and the construction contractors do not specifically address SWPPP-related documentation retention requirements and responsibilities.

Key Sampling Activities Did Not Always Meet Requirements

The CGP requires specific sampling activities during the construction phase of a project; our review of sampling activities associated with two of OCTA's grade separation projects found that they did not always meet the stated requirements. The key required sampling activities are as follows:

- Daily Storm Event Discharge Sampling (does not apply to risk level 1 projects)—collect three samples per day of a qualifying rain event and at least one sample per discharge location. Information should be maintained in project files, testing results submitted into SMARTS, and testing activities summarized in the Annual Report. Additionally, if the testing results reveal that discharges exceeded the accepted PH and turbidity levels, an exceedance report must be completed and submitted into SMARTS.
- Non-Storm Water Discharge Sampling—if a non-storm water discharge is found during a quarterly site inspection, test a sample of the discharge. Information should be maintained in project files, testing results submitted into SMARTS, and testing activities summarized in the Annual Report.

For each of the two grade separation projects, we analyzed the required daily sampling activities associated with two qualifying rain events from ten possible events and one non-storm water quarterly inspection. The facilities engineering project did not require daily sampling as the project was classified as a risk level 1 project.

Our analysis revealed that key sampling activities did not always meet requirements. Specifically, related to one rain event, documentation analyzed revealed that no daily storm event discharge

sampling was conducted even though sampling is required by the CGP. Related to a second rain event reviewed, documentation revealed that sampling had been conducted, however maximum Numeric Action Level (NAL) thresholds had been exceeded for both pH and turbidity, but the required exceedance report was not prepared and submitted into SMARTS. According to the CGP, if an NAL threshold is exceeded, the discharger must complete and submit an exceedance report into SMARTS.

Further, related to one quarterly site inspection reviewed that required sampling due to an observed NSW, there was no evidence that sampling had been conducted in response. As specified in the CGP, if a NSW is identified during a site inspection, the discharger must sample the NSW and submit the results into SMARTS as well as maintain the sampling documentation with the project files.

Minor Annual Reporting Improvements Necessary

The CGP requires dischargers to submit an annual report, which provides specific information to the State Water Resources Control Board to demonstrate compliance with all applicable requirements of the permit. We reviewed eight annual reports submitted into SMARTS—six associated with the two grade separation projects and two associated with the one facilities engineering project. We found that all eight reports reviewed required improvements as they were missing required pieces of information and/or documentation or were submitted past the deadline.

For the six annual reports reviewed related to the two grade separation projects, we found the following issues.

- All six reports did not provide the name of the individual who performed the facility inspections and/or visual observations, as well as the date, place, and time that those activities occurred.
- Two reports were missing at least one of these key pieces of information/documentation related to visual observation and sample collection exception records and laboratory reports.
- One was submitted after the September 1st deadline.

Although the staff of the cities were acting as the LRPs on these projects and had the responsibility to submit the annual reports into SMARTS, OCTA hired the contractors that were responsible for ensuring all SWPPP activities were conducted in accordance with CGP requirements, including preparation of the annual reports. As such, OCTA should ensure that its contractors provide all required information in the annual reports.

Furthermore, we found that the two annual reports reviewed related to the facilities engineering project also required improvement. Specifically, the two reports did not include the name of the individuals who performed the facility inspections and/or visual observations and did not include the date, place, and time that those activities occurred. Additionally, we found that one of the

annual reports was submitted after the September 1st deadline. Although OCTA was the LRP on the project, OCTA staff overseeing the project indicated that it was the contractor's responsibility to ensure timely submission of the annual reports.

Some SWPPP Training Documentation Could Not Be Provided

According to the CGP, dischargers shall ensure that all persons responsible for implementing requirements of the CGP shall be appropriately trained; the discharger shall provide documentation of all training for persons responsible for implementing the requirements of the CGP in the annual reports. The annual report asks if training was provided during the reporting year and the instructions state that the discharger must provide training documentation upon request. We requested to review the training documentation related to one annual reporting period associated with each of the grade separation projects and the facilities engineering project.

We were provided with training documentation for staff responsible for implementing the requirements of the CGP on one of the grade separation projects and the facilities engineering project. However, we were only provided with the training documentation for half of the staff responsible for implementing CGP requirements for the for the other grade separation project; OCTA staff noted that the contractor responsible for ensuring CGP compliance had gone out of business.

OCTA Could Further Utilize its Health, Safety, and Environmental Compliance Group to Better Ensure Compliance with the CGP

As described earlier in the report, OCTA's Health, Safety, and Environmental Compliance (HSEC) group is very involved with the day-to-day management, oversight, and monitoring activities associated with compliance with the IGP. However, the group's involvement with ensuring compliance with the CGP is limited as they may perform some monitoring of the construction site conditions but in an indirect, hands off manner. Specifically, according to HSEC staff, a Construction Safety Officer is actively involved with the construction activities related specifically to safety management programs. While HSEC staff may conduct a monthly construction site inspection, staff responsibilities do not involve CGP compliance activities, such as reviewing storm water paperwork, conducting required CGP-related compliance inspections or sampling, or ensuring required construction project documentation and updates are entered into SMARTS. OCTA should consider increasing the HSEC group's participation with construction projects and activities to help ensure compliance with the CGP.

Chapter 2 Recommendations:

To improve compliance with the CGP and benefit from opportunities for improvement, OCTA should consider the following:

7. Ensure cooperative agreements specifically clarify the roles and responsibilities of all individuals and entities associated with compliance with the CGP.

Management Response: Management doesn't agree that the roles and responsibilities of all individuals and entities should be included in the Cooperative Agreements. However, management will implement a procedure to document these roles and responsibilities in a project memo.

8. Enhance oversight of contractors and personnel carrying out SWPPP related monitoring activities, particularly related to site inspections, sampling, reporting, etc. OCTA should also ensure that agreements with contractors tasked with SWPPP activities include retention requirements.

Management Response: Enhanced oversight of contractors and construction management teams will be implemented and monitored. OCTA will ensure current and future agreements with contractors include retention requirements.

9. Ensure contractors adhere to training required by the CGP by periodically requesting to review training records.

Management Response: Periodic reviews of training records will be implemented.

10. Increase the HSEC group's participation with construction projects and activities to help ensure compliance with the CGP.

Management Response: HSEC will continue to participate in CGP compliance efforts and will identify/allocate necessary resources to ensure compliance with the CGP in partnership with OCTA's Capital Programs group via project planning efforts.