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**MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4)
COMPLIANCE INSPECTION**

**CITY OF MODESTO
CALIFORNIA**

INSPECTION REPORT

**Inspection Date:
August 30, 2012**

**Report Date:
February 13, 2013**

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Section 1.0 Executive Summary

The U.S. Environmental Protection Agency, Region 9 (EPA) conducted an inspection on August 30, 2012 of the City of Modesto, California (hereinafter, City) Municipal Separate Storm Sewer System (MS4) Program.

EPA reviewed documents and interviewed staff to gather information on overall program management and conducted field activities to review the City's MS4 Program. The inspection focused on overall program management and two program elements: (1) Industrial / Commercial Business Program, and (2) Municipal Operations Program. At the conclusion of the inspection, EPA discussed preliminary observations with City representatives.

In this report, the EPA has identified several recommendations for program improvement. Most significantly, EPA recommends the City evaluate whether additional City-owned facilities need Facility Pollution Prevention Plans to reduce or eliminate discharges to the storm drain system, as required by the MS4 permit.

Section 2.0 City of Modesto Stormwater Program

On August 30, 2012, representatives from the U.S. Environmental Protection Agency (EPA), the Central Valley Regional Water Quality Control Board (RWQCB) and an EPA contractor, PG Environmental, LLC (hereinafter, collectively, the EPA Inspection Team) conducted an inspection of the City of Modesto, California's (hereinafter, City), Municipal Separate Storm Sewer System (MS4) Program.

Discharges from the City's MS4 are regulated under *Waste Discharge Requirements for City of Modesto Storm Water Discharge from Municipal Separate Storm Sewer System*, NPDES Permit No. CAS083526, Order No. R5-2008-0092, (hereinafter, Permit), adopted on June 12, 2008. Before adoption of the Permit, the City was covered under the area-wide MS4 permit, NPDES No. CA0083526, Order No. R5-2002-0182 adopted on October 1, 2002.

The Permit authorizes the City to discharge stormwater from the Phase I MS4 into retention or detention basins, the Tuolumne River, Dry Creek, irrigation canals in the Modesto Irrigation District (MID) and rockwells. According to the Permit, approximately forty percent of stormwater discharges to detention basins, ten percent to MID canals, twenty percent to the Tuolumne River or Dry Creek and thirty percent to rock wells (i.e., groundwater). The discharges to rock wells are regulated by the Permit under the 'Storm Water Discharge to Shallow Groundwater' Section (Parts 22 – 28).

Finding 56 of the Permit requires implementation of a Storm Water Management Plan (SWMP) to reduce pollutant loads from industrial and construction sites, new developments and existing urbanized areas. Additionally, the Permit requires evaluation of the effectiveness of the SWMP in reducing the discharge of pollutants, improving water quality and protecting beneficial uses. Pursuant to this Permit requirement, the City developed the *City of Modesto Municipal Stormwater Program Stormwater Management Plan*, dated August 2009 (hereinafter, City SWMP).

According to the 2010 U.S. Census, the City is approximately 37 square miles with a population of 201,165 people. The City is located approximately 92 miles east of San Francisco, CA and 68 miles south of Sacramento, CA. According to the Permit, the storm drain system has approximately 77 miles of storm sewer and 20 pump stations within the City. The Water Quality Control Division of the City's Public Works Department is responsible for implementing the MS4 Program.

Section 2.1 Program Areas Evaluated

The inspection evaluated overall program management and the City's compliance with two of the SWMP Program Elements included in the Permit:

- Industrial / Commercial Business Program
- Municipal Operations Program

The EPA Inspection Team did not evaluate all components of the City's MS4 Program and this inspection report should not be considered a comprehensive evaluation the City's MS4 program.

Section 3.0 Evaluation Findings

This section describes the findings of our MS4 permit evaluation for those sections of the permit we reviewed. EPA identified program recommendations, which, if implemented would improve Modesto's storm water program.

The inspection findings are supported by interviews, observations and photographic evidence gathered during the inspection, as well as documentation that was obtained before, during and after the inspection. This inspection report does not attempt to comprehensively describe all aspects of the City's MS4 Program, fully document all lines of questioning conducted during personnel interviews, or document all in-field verification activities conducted during site visits.

Additional inspection report materials, including an inspection schedule, sign-in sheet, list of site visits conducted during the inspection, and site visit reports with photograph logs, are included in Appendix A.

Multiple documents were referenced by the EPA Inspection Team during the inspection process and development of this inspection report (e.g., the Permit, MS4 annual reports). In addition, the City provided the EPA Inspection Team with multiple documents during the inspection process. A list of these reference materials is included as Appendix B. The documents identified in Appendix B have not been included in the submittal of this inspection report. Copies of the materials are maintained by U.S. EPA Region 9 and can be made available upon request.

Section 3.1 Program Management

In addition to reviewing the two specific program elements listed in Section 2.1, the EPA Inspection Team also held discussions about, and took general note of the overall structure and management of the City's MS4 Program.

Program Element 3.e of the Permit requires the City to identify and ensure that departments within the City participate in storm water pollution prevention related activities. The City's MS4 Program is administered by the City's Water Quality Control Division of Public Works which coordinates with multiple City departments and divisions including but, not limited to: Parks and Recreation, Public Works, Police, Fire, Community and Economic Development, and Solid Waste.

Many City departments have direct or indirect responsibility to ensure the MS4 Program operates properly and effectively. City staff indicated that the City's Water Quality Control Division would hold "ad-hoc" meetings with other departments when the need arises to discuss MS4-related issues.

Program Recommendation:

Develop a steering committee to coordinate MS4 activities among City departments.

EPA recommends the City organize a MS4 steering committee to share information between departments and to help the MS4 Program run as efficiently and effectively as possible. EPA has seen regular coordination meetings lead to more efficient storm water programs.

3.2 Industrial / Commercial Business Program

Program Element 9 of the Permit requires the City to implement an Industrial / Commercial program to reduce pollutants in runoff to the maximum extent possible (MEP). The program must include a facility inventory, prioritized inspections, outreach, enforcement, training and an assessment of the program's effectiveness. The City must also require the implementation of pollutant reduction and control measures.

Section 3.2.1 Inventory of Industrial and Commercial Facilities

Program Element 9.a.ii of the Permit requires the City to develop and maintain an inventory of industrial and commercial facilities. The City updates this inventory periodically by reviewing City-issued business licenses and recent Notices of Intent on California's SMARTS Database. The City's inventory also includes description of permanent water quality treatment devices located on commercial properties and residences.

Section 3.2.2 Inspections of Industrial and Commercial Facilities

Program Element 9.a.iv requires the City to prioritize and inspect industrial and commercial facilities, and to conduct follow-up inspections to ensure compliance with local storm water ordinances. City staff explained that, at minimum, all businesses are inspected for storm water compliance once every five years. The City assigns higher prioritization to automotive facilities, nurseries and certain other sectors, which are inspected twice during the five-year Permit term.

The City provided the EPA Inspection Team with examples of inspection checklists used for industrial and commercial business inspections. The City is in the process of finalizing inspection standard operating procedures (SOPs) for four different types of inspections conducted by the City's Water Quality Control Division: construction, pretreatment, industrial / municipal and commercial. The EPA recommends the City continue to develop, finalize, and implement these SOPs.

As part of our evaluation of the City's industrial inspection program, the EPA Inspection Team performed an oversight inspection as a City Environmental Compliance Inspector evaluated the E&J Brandy Cellar facility, which is a high priority facility. The City had

inspected this facility four times between 2001 and 2011 and ordered corrective actions after three of the inspections. During the 8/30/2012 oversight inspection, the City inspector conducted an abbreviated SWPPP review and during his tour of the site, identified one storm water concern, which the facility addressed. Details of the inspection are included in a short report (see [Appendix A.4](#)). In addition, the City informed us it issued a notice of violation (NOV) to the facility on 10/2/2012 for a discharge of muddy water from the property after a water line break was detected and reported on 9/25/2012 by the Public Works Collections Division.

Section 3.2.3 Industrial / Commercial Business Enforcement

Program Element 9.a.v requires the City to implement a progressive enforcement policy to ensure that adequate enforcement is conducted, and to coordinate with the Regional Water Board to refer potential non-filers. The City's authority to pursue storm water violations is found in Title 5.10 of the City's municipal code. City staff provided an "Enforcement Response Plan" (see [Appendix B.6](#)) which includes escalation of enforcement based on differing levels of non-compliance. In its 2010-2011 Annual Report, the City reported six non-filers to the Regional Board and issued 33 Notices of Violations, 42 verbal warnings and 6 written warnings. The City described instances where it has issued orders and levied civil penalties to non-compliant facilities, in accordance with its Enforcement Response Plan.

Section 3.3 Municipal Operations Program

Program Element 10 requires the City to implement a Municipal Operations Program and effectively prohibit non-storm water discharges and prevent or reduce pollutants in runoff from all municipal land use areas, facilities, and activities to the MEP. The program must include pollution prevention, street sweeping and storm drain system cleaning, emergency procedures and internal training, among other activities.

Section 3.3.1 Pollution Prevention BMPs for Public Facilities

Program Element 10.a.iii requires the City to implement Facility Pollution Prevention Plans (FPPPs) at all public facilities (e.g., corporation yards).

The City provided the EPA Inspection Team with a list of 49 City-owned properties (see [Appendix B.22](#)). The list includes some facilities for which FPPPs had been developed, but listed other properties for which a FPPP would likely not be appropriate (e.g. City office buildings). City staff indicated that an evaluation would be conducted to determine which facilities might require FPPPs.

The EPA Inspection Team conducted site visits at the City's Corporation Yard, Old Bus Yard and New Bus Yard. A listing of the site visits can be found in [Appendix A.3](#) of this report, and details of the Corporation Yard site visit can be found in [Appendix A.5](#).

The City developed a FPPP for the Old Bus Yard and during our site visit the Old Bus Yard was free of exposed pollutant sources. Storm water from the New Bus Yard and Corporation Yard discharges to the sanitary sewer.

Program Recommendation

EPA recommends the City evaluate and develop, as necessary, FPPPs for all facilities as required by Permit Program Element 10.a.iii.

Through discussions with City staff and document review, EPA finds that there are public facilities which could discharge pollutants to the MS4 that did not have FPPPs. The City discussed two examples of City-owned facilities that may have exposed pollutant sources that currently lack FPPPs: the municipal golf courses and schools, which may have vehicle maintenance facilities.

Section 3.3.2 Street Sweeping

Program Element 10.a.x requires the City to conduct street sweeping activities, but does not specify a frequency or require prioritization. Prior to 2008, the City swept certain high priority areas nightly. At the time of the inspection, all areas were on a once-a-month sweeping schedule, causing a reduction in the reported tonnage of debris collected annually from 9,225 tons in 2007-2008 to 2,860 tons in 2010-2011.

Program Recommendation

Conduct an analysis to determine the most efficient distribution of street sweeping resources.

The Permit requires the City to reduce discharges of pollutants in urban runoff to the MEP and to continually assess the storm water program to determine effectiveness (Permit Fact Sheet, Section 1). The City should evaluate the street sweeping data to determine which areas should be a higher priority for sweeping (e.g., amount of debris, proximity to surface water). The City should determine if certain areas should be swept less frequently than monthly to enable more frequent sweeping in higher priority areas.

Section 3.3.3 Catch Basin Stenciling and Cleaning

Program Element 10.a.vi requires the City to clean and maintain catch basin inlets to prevent debris accumulation and flooding. Program Element 10.a.vii requires the City ensure catch basin inlets are stenciled to discourage illicit discharges. Each year, the City cleans catch basins that discharge to receiving waters while catch basins that discharge to rockwells or retention basins are cleaned every two to five years. According to the 2010-2011 Annual Report and supporting documents obtained during the inspection, the City cleaned all catch basins discharging to receiving waters and a total of 23.24 tons of debris was removed. City staff estimated that 92 percent of storm drain inlets throughout the City have been labeled to indicate that they discharge to waterways. The City was unable

to replace 113 deteriorated or missing decals, which were identified during the 2010-2011 year due to understaffing and budget.

Section 3.3.4 Public Reporting Hotline

Program Element 10.a.viii requires the City to promote the use of the 24-hour public reporting hotline number. The number is embedded within pollution prevention PDFs on the City's main Storm Water Pollution Prevention website. Tips and complaints regarding discharges to waterways are channeled through the City's public reporting hotline number, which is routed to City administrative staff during business hours and to a contracted answering service after hours. The City of Modesto's 2010-2011 Annual Report indicates 512 calls were placed on the 24-hour hotline during the most recent reporting year. Those calls were primarily reporting illicit discharge / illegal connections (IC/ID) (258) but also reported were clogged drains (150) and general storm water information (104). The Annual Report also cites that 100% of the calls reporting IC/ID were investigated.

Program Recommendation

Improve the online visibility of the 24-hour public reporting hotline number.

EPA recognizes that the public is actively using the 24-hour public reporting hotline, however, EPA recommends the City include the reporting hotline number on the main storm water website to increase visibility.

Section 3.3.5 Minimizing Environmental Damage During Emergency Situations

Program Element 10.a.xiv requires the City to implement a plan to minimize environmental damages during emergency situations. According to the City's 2010-2011 Annual Report and interviews with City staff, the City's Water Quality Control Division has initiated discussions with and provided stormwater protection BMP language to the City Fire Marshall for inclusion into the City's Fire Department Emergency Operations Plan. EPA recommends that the City follow up with the City Fire Marshall to ensure that the storm water protection BMP language is incorporated into the EOP.

Section 3.3.6 Internal Training on Applicable Components of the SWMP

Program Element 10.a.xii requires the City to provide regular internal training on applicable components of the SWMP. Through discussions with City staff and review of training records, the EPA Audit Team found that the City's Water Quality Division has implemented a training and awareness program. According to City staff, the City's goal is to provide training every two years to every City department which implements aspects of the MS4 program and provisions of the SWMP. The City encourages contractors to attend City-sponsored stormwater training sessions. City staff was able to demonstrate through documentation of syllabi and attendance sheets that the training program was well organized and documented.

Section 3.3.7 Promotion and Use of Integrated Pest Management

Program Element 10.a.v requires the City to promote the use of Integrated Pest Management (IPM) methods and less toxic alternatives. The City promoted the use of IPM to its departments through employee training in an effort to promote less toxic alternatives. The City tracks and records the annual poundage of pesticides and fertilizers applied to City owned properties and has developed written BMPs in English and Spanish which describe the storage, handling and disposal requirements for all municipal pesticide applicators. The City has reduced the pounds of pesticides applied from 1,062 gallons in the 2008-2009 reporting year to 689 gallons in the 2010-2011 reporting year.

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