

## **Program Evaluation Report**

### **Santa Clara Valley Urban Runoff Pollution Prevention Program: County of Santa Clara and City of San Jose (NPDES Permit No. CAS029718)**

#### **Executive Summary**

Tetra Tech, Inc., with assistance from U.S. EPA Region IX and the California Regional Water Quality Control Board, San Francisco Region (Regional Board), conducted a program evaluation of 2 of the 15 copermittees implementing the Santa Clara Valley Urban Runoff Prevention Program (SCVURPP) in December 2003. The purpose of the program evaluation was to determine the copermittees' compliance with the National Pollutant Discharge Elimination System (NPDES) permit (CAS029718 and Board Order No. 01-024 and 01-119) and to evaluate the current implementation status of the permittee's Urban Runoff Management Plan with respect to the Environmental Protection Agency's (EPA's) storm water regulations. The program evaluation included an in-field verification of program implementation. The two copermittees evaluated were the County of Santa Clara (County) and the City of San Jose (City).

This program evaluation report identifies potential permit violations, program deficiencies, and positive attributes, and is not a formal finding of violation. Program deficiencies are areas of concern for successful program implementation. Positive attributes indicate overall progress in implementing the program.

The following potential permit violations and program deficiencies are considered the most significant:

- The County's program would benefit from increased departmental accountability and ownership of BMPs.
- The County's annual report lacks adequate information to assess program effectiveness and document program implementation.
- The County's storm water program appeared to lack adequate resources and support to implement a comprehensive storm water program.
- The County industrial program lacks the identification and inspection of facilities covered under the State's General Industrial Permit.
- The County's municipal maintenance field staff lacked formal guidance for BMP implementation during routine maintenance activities
- The City's public works and building inspectors will require more training and experience to ensure compliance with erosion and sediment control requirements at construction sites.

- The City's performance standards for operation and maintenance of public streets, roads and highways and storm drain system lack quantifiable targets.

Several elements of the copermittees' program were particularly notable:

- The County's Integrated Pest Management (IPM) program was well implemented and organized.
- The City's annual report is clearly written and includes a detailed evaluation of several program areas.
- The City follows up Illicit Connection Illegal Dumping (ICID) complaints by sending out a customer service card to the complaining party.
- The City has developed a *Watershed Enforcement Response Plan* to guide the City's response to violations of municipal code relating to storm water and urban runoff.

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## **1.0 Introduction**

### **1.1 Program Evaluation Purpose**

The purpose of the program evaluation was to determine the copermittees' compliance with their National Pollutant Discharge Elimination System (NPDES) permit (CAS029718 and Board Order No. 01-024 and 01-119) and to evaluate the current implementation status of the copermittees' Urban Runoff Management Plan (URMP) with respect to the Environmental Protection Agency's (EPA's) storm water regulations. Secondary goals included the following:

- Review the overall effectiveness of the program.
- Identify and document positive elements of the program that could benefit other Phase I and Phase II municipalities.
- Acquire data to assist in reissuance of the permit.

40 CFR 122.41(i) provides the authority to conduct the program evaluation.

### **1.2 Permit History**

The NPDES storm water permit was issued on February 21, 2001, amended October 17, 2001, and is scheduled to expire on February 21, 2006. The current permit, the third issued to the copermittees, requires each copermittee to develop and implement an URMP. The Management Plan contains performance standards that define the level of implementation necessary to demonstrate the control of pollutants in storm water to the maximum extent practicable.

### **1.3 Logistics and Program Evaluation Preparation**

Before initiating the on-site program evaluation, Tetra Tech, Inc., reviewed the following Program materials:

- NPDES Permit No. CAS029718
- County of Santa Clara Urban Runoff Management Plan Annual Report 2002-2003 (September 2003)
- City of San Jose Urban Runoff Management Plan Annual Report 2002-2003 (September 2003)
- City of San Jose Urban Runoff Management Plan (March 2002), selected performance standards and standard operating procedures
- Regional Board correspondence with each copermittee
- Permittees' web sites

On December 2-4, 2003, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

<b>Tuesday, December 2</b>	<b>Wednesday, December 3</b>	<b>Thursday, December 4</b>
<ul style="list-style-type: none"> <li>• Program evaluation kickoff meeting</li> <li>• Municipal maintenance activities</li> <li>• Industrial and commercial dischargers (office)</li> <li>• Illicit connection/illegal dumping (office)</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial and commercial dischargers (field)</li> <li>• Construction inspection (office)</li> </ul>	<ul style="list-style-type: none"> <li>• Construction inspection (field)</li> <li>• Program effectiveness</li> </ul>

The County of Santa Clara followed the schedule above, except that field construction inspections were completed on Wednesday, and an evaluation of the Illicit Connection/Illegal Dumping (ICID) and Industrial/Commercial Dischargers (IND) programs conducted by the County’s Department of Health was completed on Thursday.

Upon completion of the evaluation, an exit interview was held to discuss the preliminary findings. During the exit interview, the attendees were informed that the findings were to be considered preliminary pending further review by EPA and the Regional Board.

**1.4 Program Areas Evaluated**

The following program areas were evaluated:

- Program Management, including the copermittees’ assessment of URMP effectiveness
- Illicit Connection/Illegal Dumping (ICID)
- Industrial/Commercial Dischargers (IND)
- Construction Inspection (CON)
- Public Streets, Roads and Highways (PSR)
- Storm Drain System Operation and Maintenance (SDO)
- Pesticide Management (PM)

Note that for the purpose of this report, the program areas for PSR, SDO, and PM were combined into a municipal maintenance program area.

**1.5 Program Areas Not Evaluated**

The following areas were not evaluated in detail as part of the program evaluation:

- Monitoring programs conducted by individual permittees. This evaluation did include a review of the program-wide monitoring conducted by the Santa Clara Valley Urban Runoff Prevention Program (SCVURPP) and a separate report has been prepared that contains a review of SCVURPP monitoring activities.
- New and Redevelopment (NDC). This evaluation did not include activities associated with Order No. 01-119, Provision C.3 (adopted October 17, 2001) which amended the permit to require additional site design, source control, and stormwater treatment measures for certain new development and redevelopment projects.

- Public Information/Participation.
- Other NPDES permits issued to the copermitees (e.g., industrial or construction NPDES storm water permits).
- Inspection reports, plan review reports, and other relevant files. The program evaluation team did not conduct a detailed file review to verify that all elements of the program were being implemented as described. Instead, observations by the evaluation team and statements from the copermitees' representatives were used to assess overall compliance with permit requirements. A detailed file review of specific program areas could be included in a subsequent evaluation.

### **1.6 Program Areas Recommended for Evaluation**

The evaluation team recommends the following additional assessments:

- An evaluation of the permittees that were not evaluated.
- An evaluation of all permittees implementing programs developed in compliance with Board Order No. 01-119, which amended the current Santa Clara Valley Municipal Separate Storm Sewer System (MS4) permit to require additional site design, source control, and stormwater treatment measures for certain new development and redevelopment projects.
- A follow-up evaluation of construction inspections conducted by City of San Jose public works and building inspectors. The program evaluation discussed in this report only evaluated the activities of public works inspectors and not building inspectors.

## **2.0 Program Evaluation Results**

This program evaluation report identifies potential permit violations, program deficiencies, and positive attributes, and is not a formal finding of violation. Program deficiencies are areas of concern for successful program implementation. Positive attributes indicate a copermitee's overall progress in implementing the program. The evaluation team identified only positive attributes that were innovative (beyond minimum requirements). Some areas were found to be simply adequate; that is, not particularly deficient or innovative.

The evaluation team did not evaluate all components of each permittee's program. Therefore, the copermitees should not consider the enclosed list of program deficiencies a comprehensive evaluation of individual program elements.

The most significant potential permit violations, program deficiencies, and positive attributes identified during the evaluation are noted in the Executive Summary and are identified with text boxes in the following subsections.

## 2.1 County of Santa Clara

### 2.1.1 Evaluation of Program Management and Effectiveness

#### Deficiencies Noted:

- *The County's program would benefit from increased departmental accountability and ownership of BMPs.*

Although the Non Point Source (NPS) coordinator has taken the lead role in implementing the storm water program, other departments should be involved in the selection and implementation of BMPs to control storm water discharges for their specific activities. The NPS coordinator is encouraged to work with the individual departments to provide technical assistance and ensure adherence to the NPDES permit requirements. Evaluations with Department of Environmental Health (DEH) staff demonstrated a lack of knowledge regarding the County's MS4 permit and associated BMPs to be implemented.

Additionally, the other County departments did not appear officially accountable for their role in storm water management; only the NPS coordinator was accountable for the implementation of the County's BMPs. The County should develop an implementation plan that officially identifies the roles of the other departments in storm water management in the County.

Furthermore, the NPS coordinator stated that the department directors meet twice per month, but a formalized mechanism is not in place for coordination of the storm water program. Enhanced coordination between the departments would improve the effectiveness, cohesiveness, and consistency for the County's storm water program implementation. Coordination for the County storm water program might be accomplished through designating a storm water staff member in each department responsible for BMP accountability. The designated staff members could then participate in frequent storm water program coordination meetings discussing program status, current problems, updated permit issues, as well as other storm water specific issues. The County is encouraged to mirror the coordination of the County's Integrated Pest Management (IPM) program, which has a designated staff member in each department responsible for implementing and coordinating specific aspects of the IPM program.

An example the evaluation team is familiar with is the City of San Diego, which has established a formal process for ensuring accountability by each department charged with program implementation. To ensure comprehensive implementation, San Diego's program designates a primary department and supporting department(s) for each program component. Each responsible department is then required to do the following:

- Certify acceptance of the URMP document.
- Establish applicable written policies and procedures.
- Maintain records as required by the permit.
- Provide staff training.

- Report the status of implementation to the storm water program.
- Provide annual compliance certification with all permit requirements that apply to the department.

The San Diego program recommends that each department follow a process with nine steps: (1) adopt, (2) distribute, (3) train/develop awareness, (4) practice/implement, (5) assess/review, (6) update, (7) report, (8) inspect, and (9) certify. The program also requires each department to designate a departmental coordinator who ensures implementation and coordinates activities with the storm water program. With only a few exceptions, the on-site evaluation conducted in the City of San Diego in 2002 found this process to be well received and to result in a high level of departmental awareness and accountability.

- *The County's annual report lacks adequate information to assess program effectiveness and document program implementation.*

An evaluation of the Santa Clara County 2002/2003 Annual Report demonstrates a lack of program assessment and evaluation. The document also lacks clear analysis of each of the County's components, such as industrial inspection activities. Instead, the annual report largely contains copies of inspection forms and web pages without a summary or analysis of activities. The NPS coordinator was encouraged to collaborate with the other departments to obtain not only data gathered within the reporting year for activities related to the storm water program, but also a brief description and explanation of the progress of each component. Additionally, the County was recommended to reference the City of San Jose's annual reporting format for context and program component evaluations as this document provides a concise summary of the City's activities in a series of tables, compares results to previous years, and discusses why the City achieved the level of compliance it did. Other Co-permittee's annual reports also provide good examples for the County to consider.

- *The County's storm water program appeared to lack adequate resources and support to implement a comprehensive storm water program.*

The NPS coordinator is not only responsible for the implementation of the County's storm water program, but also for Phase II communities in the south county, grading violation follow-up and compliance, serving as staff liaison for the Pajaro River Watershed Flood Prevention Authority, and conducting storm water enforcement in coordination with County departments and the district attorney. Although the NPS coordinator is knowledgeable in regards to storm water, he lacked additional personnel and other resources to adequately implement an effective program. In addition, as discussed in the previous finding, responsibility for implementing the storm water program was largely placed on the NPS coordinator, without adequate support from other County departments and staff.

- *Many of the County's performance standards lack quantifiable targets.*  
The County's performance standards include broad descriptions of practices instead of specific, quantifiable activities (e.g., "the County will implement BMPs to reduce

pollutants to the maximum extent practicable” and “County will implement a process for tracking hot spots and ensuring that BMPs are implemented”).

The County should develop performance standards that include specific activities that are quantifiable. For example, the County’s performance standards should include the minimum frequency of catch basin cleaning, the frequency of industrial and construction inspections, and the timing of training or guidance development.

- *The County lacks a standardized and formal employee training program.*  
Employee training is generally department-specific and is largely based on verbal instruction provided by department management and supervisors. The NPS coordinator explained that some annual storm water training modules have been presented, but that there was no formal employee training. Additionally, departments participate in individual team “tail-gate” meetings, but there is no discussion of storm water specific issues. To provide a consistent level of storm water awareness, the County should create a general storm water awareness program for employees (“Storm water 101”) and more targeted training for maintenance crews, industrial and commercial business inspectors, and building department inspectors. For example, the City of San Diego employees receive storm water pollution prevention general training. Approximately 90 percent of employees have received training that covers the storm water ordinance, the permit, general information, and some selected ICID guidance. Each participant is given a Storm Water Pollution Report Pad to use for reporting observed illegal discharges to the storm drain. An educator provides the training, and a video is used as well. The video won a "Savvy" award in the TV and Video--Employee Training category from the City-County Communications and Marketing Association. Participants in the workshop are given a pretest and a post-test to measure the training’s effectiveness. The results are tracked and are being used to determine the focus of the training and the information to be disseminated each year.

### **2.1.2 Evaluation of Illicit Connection/Illegal Dumping (ICID) Program**

#### Deficiencies Noted:

- *The County lacks an adequate reporting and analysis mechanism to determine effectiveness of the ICID program.*  
In-field evaluations with the Hazardous Materials Compliance Division (HMCD) and Consumer Protection Division (CPD), both under the DEH, revealed that they had been adequately implementing the ICID program, but were not reporting ICID activities in the annual report or analyzing the ICID data. CPD conducted illicit connection inspections of septic tanks, gray water, swimming pools, and water well issues. HMCD covered illegal dumping issues, usually reacting to hotline phone calls. During in office interviews, HMDC staff explained the both the illicit connection and illegal dumping activities were tracked by an Access database developed by the SCVURPPP contractor, which the County has been using since June 2003 (the evaluation team did not have an opportunity to view this database). The County explained that the information gathered in the database would be analyzed and included in the 2003-2004 annual report.

- *The County does not conduct proactive ICID inspections and instead conducts investigations based solely on complaints.*  
Performance standard ICID 4 requires the County to “pro-actively conduct investigations of high priority areas.” The County does not conduct proactive ICID inspections and instead primarily responds to ICID incidents based on complaints. The County should develop a process to identify priority areas including information such as past ICID events, dry weather screening, or potential pollutant sources/businesses in the area. The County should then proactively conduct periodic investigations of these areas to identify whether illicit discharges are occurring. The County should not rely solely on complaints from citizens to define high priority areas.

**2.1.3 Evaluation of Industrial and Commercial Dischargers (IND) Program**  
Potential Permit Violation:

- |   |
|---|
| <ul style="list-style-type: none"> <li>• <i>The County industrial program lacks the identification and inspection of facilities covered under the State’s General Industrial Permit.</i></li> </ul> |
|---|

The “Category A Facilities” list of industrial facilities provided for review did not identify facilities required to submit a notice of intent (NOI) to be covered by the State’s General Industrial Permit. According to the NPS coordinator, the County has limited resources and staff time to identify these facilities due to the complexity of identifying facilities in the unincorporated portion of the County and therefore does not track these facilities. The Regional Board’s list of industrial facilities permitted under the State’s General Industrial Permit are identified by City, without indicating whether the facility is within the City or in the unincorporated County with a City address. Performance standards identified in Chapter 15, Section IV, page 1 of the URMP require the County to update the inventory of “Category A facilities” at the beginning of each fiscal year. Although the County may update the list, NOI facilities are not identified. Furthermore, section C.6.a.i of the MS4 permit states that industrial inspections include, but are not limited to industrial sites covered under the State’s General Industrial Permit. Since, at the time of this evaluation, the County had not identified industrial facilities under the State’s General Industrial Permit within the County’s jurisdiction, regular inspections of these NOI facilities were not tracked. The County was encouraged to work with the Regional Board to obtain a list of permitted industrial facilities under the County’s jurisdiction and develop a process to identify whether these facilities are located within an incorporated city or within the County’s jurisdiction. A geographic information system (GIS) with County parcels identified and address-matching capabilities may be able to do this quickly.

Deficiencies Noted:

- *DEH industrial inspectors lack formalized procedures for storm water specific enforcement actions.*  
Industrial inspections are conducted through the DEH Division (HMCD) that primarily investigates hazardous materials issues. Storm water issues found on site are looked at secondarily. Although, the DEH inspectors are well equipped with the

tools to enforce hazardous materials/waste violations, they lack formalized procedures to enforce storm water violations. The DEH inspectors use a checklist that includes federal, state, and local regulations primarily for hazardous materials violations. Interviews with field staff demonstrated that inspectors have authority to issue correction notices, but lack escalation enforcement procedures for storm water issues. Industrial inspector training should include enforcement procedure awareness. As an example, the County may wish to review the City of San Jose's Watershed Enforcement Response Plan which describes staff duties, available enforcement actions, progressive enforcement action sequence guidelines for industrial facilities, ICID events, and construction sites, and provides copies of all relevant forms.

- *Program implementation appears to suffer from a lack of cross-departmental coordination.*

The industrial and commercial inspection program is largely administered by HMCD inspectors within DEH. While the NPS coordinator is often asked to participate or otherwise support enforcement cases, the coordinator's day-to-day involvement with the inspection program is limited. The list of businesses to be inspected, the inspection schedules, and the need and urgency for recurring inspections appear to be the sole responsibility of the DEH. It is unclear whether there are routinely scheduled meetings between the NPS coordinator and hazardous materials compliance division inspection staff to discuss progress and identification of problems regarding storm water issues. Improved coordination would likely increase the effectiveness of both industrial and commercial inspection programs and how each are integrated within the overall URMP goals.

In addition, DEH staff explained that storm water issues are not a primary concern during routine industrial and commercial inspections. The industrial field inspectors demonstrated an adequate knowledge of storm water issues and BMPs associated with industrial activities. However, the County NPS coordinator was encouraged to increase communication and coordination with the DEH to offer guidance, update checklists, develop databases, and enforce the storm water program.

- *Industrial inspectors should receive periodic training on the requirements in the State's General Industrial Permit and how to conduct storm water inspections at industrial facilities.*

Although the DEH industrial inspectors were knowledgeable about storm water quality issues and BMPs at industrial sites, they lacked an understanding of the requirements in the State's General Industrial Permit. The inspectors should be knowledgeable about the requirements in this permit so they can refer cases of significant noncompliance to the Regional Board and the NPS coordinator. The Water Board periodically provides storm water training workshops that these inspectors can attend. Information on this training can be found at <http://www.swrcb.ca.gov/stormwtr/training.html>.

## 2.1.4 Evaluation of Construction Inspection (CON) Program

### Positive Attributes:

- The County Roads and Airport Department requires a Storm Water Pollution Prevention/Escape Plan development line item for contractor bids.*  
 The Road and Airport Department's *Standard Specifications for Roads and Airports, May 2000* requires the contractor to include in the bid the cost for developing and implementing a *Storm Water Pollution Prevention Plan*. These plans must include BMPs for erosion control, construction materials and waste handling, non-storm water discharges, and other storm water related issues. Storm water pollution prevention plans are required for all construction sites regardless of size. Storm water pollution prevention plans are required to be on site at all times and reviewed by the dedicated construction site inspector.
- The County private construction inspection staff are effective and well trained.*  
 The evaluation team accompanied County inspectors on two site visits: Black Road hillside development and Lexington Avenue development. During both visits, the inspectors were firm and direct about correcting storm water problems. The staff also effectively described storm water requirements and recommended actions to correct problems. For example, the inspectors found multiple violations for erosion and fuel spills at the Lexington Avenue site. The inspectors took immediate actions with the site superintendent and contacted the NPS coordinator to draft a violation letter.

### Deficiency Noted:

- The County should consider providing storm water oriented inspection forms and inspection guidance to the private construction site inspectors.*  
 During the evaluation, the private construction site inspectors recorded their inspection findings in a daily log instead of using a storm water inspection checklist. Although these logs may document routine construction inspections, they lack specific information to assist inspectors in determining compliance, including the evaluation of on-site erosion and sediment control BMPs, construction waste, equipment and material storage, and maintenance. In addition, the daily inspection logs should note necessary maintenance or changes to BMPs, whether any enforcement action has been taken, and whether the site is covered under the State's General Construction Permit. The County's private construction inspectors are planning to use handheld personal digital assistants (PDAs) to conduct their site inspections in the near future. The PDAs will include construction site checklists, which can be downloaded to a construction site database.

Although the private construction inspectors were experienced and knowledgeable about construction site storm water controls, the inspectors lacked written procedures for conducting consistent inspections. The County should develop formal inspection procedures that would provide inspectors with consistent guidance on adequate BMP installation and maintenance, record-keeping, and enforcement procedures.

## 2.1.5 Evaluation of Municipal Maintenance (PSR, SDO, PM) Programs

### Positive Attribute:

- *The County's Integrated Pest Management (IPM) program was well implemented and organized.*

The County has adopted an IPM Ordinance (No. NS-517.70, 5-21-02) and has established a point of contact or coordinator for each department of the County. This group meets every month to discuss implementation of the program. Additionally, the IPM program holds an annual workshop discussing implementation, training, and public outreach. The Parks Department has developed IPM work plans for each of the nine field units. Although the work plans are currently drafts, the documents discuss implementation for daily and monthly activities. The final work plans are slated to be complete next fiscal year. The IPM program has implemented innovative techniques for regular field activities. For example, the Parks Department has substituted the use of diazinon with a natural rosemary and mint oil solution. The County should use the IPM program as a model for implementing and organizing the storm water program.

### Deficiencies Noted:

- *The County's Hellyer County Parks maintenance yard lacked sufficient controls to prevent storm water contamination.*

The evaluation team visited the maintenance yard located on Hellyer drive off of Highway 101. Evaluation of the yard revealed the following storm water issues:

- Vehicles and equipment stored outside the fleet maintenance shop showed signs of leaks. Some stored vehicles lacked drip pans.
- Paved areas showed signs of sediment tracking from vehicles. The municipal yard staff was encouraged to increase facility sweeping and clean-up activities during the rainy season.
- On-site spill kits were not readily available or visible. The municipal staff was encouraged to increase the number of spill kits on site. In addition, the spill kits should be labeled and highly visible to staff.
- Storm drains located within the facility had no storm water controls. Municipal yard staff was encouraged to install storm drain inlet protection devices, such as sediment filter bags (silt sacks) and/or hydrocarbon filters.

- *Municipal maintenance field staff lacked formal guidance for BMP implementation during routine maintenance activities.*

During the evaluation, municipal maintenance field staff explained that BMPs for routine municipal maintenance activities are selected and followed in the field based on best professional judgment. However, the municipal field staff lacked formal, written BMP guidance for routine municipal maintenance activities such as catch basin cleaning, vegetated swale maintenance, and landscape maintenance. Although supervisory staff retain a designated set of BMPs for municipal areas, copies were not available for maintenance crews. A formal set of BMPs for field staff would benefit routine municipal maintenance activities and ensure a high level of consistency for such activities.

As an example, the City of Stockton has developed a Storm Water Maintenance Staff Guide for its employees. The Storm Water Maintenance Staff Guide addresses the implementation of storm water BMPs during maintenance activities and during activities conducted at maintenance facilities. The guide provides background about the storm water program, pollutants of concern, and program evaluation. The guide primarily consists of a series of about 60 "cut-sheets" describing, for each BMP, the environmental concerns, definition and purpose, and operational procedures. The guide provides maintenance staff with an easy reference to determine appropriate storm water practices for a variety of activities. For additional examples of maintenance BMPs, see the California Storm Water Quality Association's *Municipal BMP Handbook* (2003) available at <http://www.cabmphandbooks.com>.

## 2.2 City of San Jose

### 2.2.1 Evaluation of Program Management and Effectiveness

#### Positive Attributes:

- *The City's annual report is clearly written and includes a detailed evaluation of several program areas.*

The City's 2002-2003 Annual Report clearly identifies the City's performance standards and actions completed to meet those standards. Annual work plans are based on the City's performance standards, and include individually numbered activities for each program component. The annual report then describes the compliance date, status, and responsible party for each activity in the work plan. This format allows a reader to easily see how the City met its individual performance standards the past year.

The annual report also includes a qualitative program evaluation of many of the program components. For example, the ICID program evaluation discussed trends in the types of incidents reported, and included a chart on the number of incidents by type and land use. The City also included a number of summary tables describing incidents, City activities and enforcement actions. Some of these tables included activities for the past six reporting periods, allowing a reader to see trends.

The City is encouraged to expand upon the program evaluation section in future annual reports. For additional information on program evaluations, the City should review the presentations from the November 14, 2003, meeting of the California Storm Water Quality Association. This meeting focused on MS4 program effectiveness and how MS4s can document program effectiveness. The presentation materials are available at <http://www.casqa.org/swqtf/presentations.htm>. An additional resource is *A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs* developed by the San Diego Municipal Storm Water Copermittees. A copy of this report is available at [http://www.projectcleanwater.org/pdf/Copermittees/assessment\\_framework\\_final.pdf](http://www.projectcleanwater.org/pdf/Copermittees/assessment_framework_final.pdf).

- *The City manages the storm water program using a work plan submitted to the Regional Board in March of each year and regularly scheduled coordination meetings with City staff.*

The City, along with the other copermittees, submits an annual work plan in March of each year to the Regional Board. The work plan is formatted to follow the individual performance standards for each program component, and includes specific activities the City will accomplish to implement each performance standard. The work plan includes an annual training schedule for City staff.

The City storm water program manager meets every other week with storm water contacts from other City departments. These meetings help coordinate activities in the URMP, training, annual reporting, and other storm water tasks.

## 2.2.2 Evaluation of Illicit Connection/Illegal Dumping (ICID) Program

### Positive Attributes:

- *The City follows up ICID complaints by sending out a customer service card to the complaining party.*

After an ICID complaint is responded to, the City sends out a customer satisfaction survey card to evaluate the City's response. The card asks whether the complaint was resolved, whether it was resolved in a timely manner, and whether it was resolved to their satisfaction. The card also asks whether the responder was courteous, professional, and knowledgeable, and asks the respondent to rate the City's service.

The City summarized responses received in the FY 02-03 annual report. Although only 11% of cards were returned, 70% of respondents said their complaint was resolved, and 75% rated the City's service as good or excellent. Any returned card indicating the need for additional investigation generated a new ICID case, ensuring that the City followed up on any unresolved complaints.

- *The Environmental Services Department inspectors are adequately responding to a large number of ICID incidents.*

The Environmental Services Department has dedicated two inspectors to conducting ICID investigations. In addition to these two inspectors, the eight inspectors dedicated to industrial inspections are also available to conduct ICID inspections when needed. This dedication of resources allows the City to respond to the over 900 ICID incidents reported in FY 02-03.

In addition to the ICID and IND inspections, the City's ten ESD inspectors are also responsible for conducting construction inspections of selected sites and addressing construction storm water violations. This large workload will likely require an increase in resources as the storm water program matures.

Deficiency Noted:

- *The City does not conduct proactive ICID inspections and instead conducts investigations based solely on complaints.*  
Performance standard ICID 2 requires the City to “conduct investigations of high priority areas.” The City largely defines high priority areas as locations where a complaint was received. The City should develop a process to identify priority areas including information such as past ICID events, dry weather screening, or potential pollutant sources/businesses in the area. The City should then proactively conduct periodic investigations of these areas to identify whether illicit discharges are occurring, and should not rely solely on complaints from citizens to define high priority areas.

**2.2.3 Evaluation of Industrial and Commercial Dischargers (IND) Program**

Positive Attributes:

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| <ul style="list-style-type: none"> <li>• <i>The City has developed a Watershed Enforcement Response Plan to guide the City’s response to violations of municipal code relating to storm water and urban runoff.</i></li> </ul> |
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The Environmental Services Department’s Watershed Enforcement Response Plan addresses enforcement actions for industrial/commercial, illicit discharge, and construction site storm water violations. The types of enforcement actions are described, and the plan steps an inspector through the various levels of penalties for each inspection type. In addition, the plan includes copies of relevant inspection forms and enforcement notices.

- *Environmental Services Department inspectors were thorough and knowledgeable during storm water inspections.*  
The evaluation team accompanied two Environmental Services Department inspectors on an inspection of a recycling facility and a school district bus yard. Both inspectors were knowledgeable about storm water contaminants and BMPs, thorough in their inspections, and direct with the facility operators. One inspector also reviewed the Storm Water Pollution Prevention Plan available on site and used the site map as an aid during the inspection. Inspectors receive annual storm water training and the City develops training on more specific topics as needs arise. For example, industrial inspectors were trained on restaurant inspections in early 2003, and a number of City staff attended training events on the new C.3 development standards requirements in ’02-03. The City is encouraged to include staff from other copermittees in their training as appropriate to help cross-train staff.
- *The City is developing a new database for IND/ICID inspectors that will include PDAs for all Environmental Services Department (ESD) inspectors.*  
The City's ESD is currently implementing a new Environmental Enforcement Data Management System (EEDMS), which serves the needs of both the pretreatment program and the storm water inspection programs (ICID, IND, and CON). EEDMS is based on a proprietary application used for Pretreatment programs and has been customized to handle storm water enforcement needs. The system handles the traditional data management activities of such programs and also features the

integration of field devices (PDAs) for inspectors to collect, print, and access facility and inspection case information while in the field. Inspectors use several forms on the PDA and, with the aid of pull down menus and pre-selected entries, will be able to document cases swiftly, while the availability of text fields allows for site-specific annotations.

Deficiency Noted:

- *The City schedules inspection frequencies based on past problems identified, and not potential pollutant sources on site.*  
The City's performance standard (IND 3) sets a frequency of inspections based on "areas of concern" or AOCs. An AOC is an identified violation issued to a facility during either an industrial inspection or an ICID investigation. A facility with two or more AOCs over a rolling five-year time frame (three years for food service facilities) is inspected every year. If a facility has no AOCs over a rolling five-year time period, then that facility is only inspected once every five years.

While this is beneficial, the scheduling based on past problems could leave some facilities with significant potential pollutant sources inspected only every five years. The City should consider setting minimum inspection frequencies for facilities with significant potential pollutant sources but no recent AOCs. Currently, facilities subject to the State's General Industrial Permit or auto service facilities could be inspected as infrequently as once every five years if no AOCs are identified.

**2.2.4 Evaluation of Construction Inspection (CON) Program**

Positive Attributes:

- *The City has developed new erosion and sediment control standards for Public Works projects.*  
The City has developed new standards, taking effect in January 2004, which will include a separate bid amount for the implementation of the Storm Water Pollution Prevention Plan, monthly certification from contractors certifying that BMPs are in place and being maintained, and the delay of invoicing payment if such certifications are not kept current.
- *The AMANDA system will help the City track the permit and inspection process.*  
The City's Departments of Public Works; Fire; and Planning, Building and Code Enforcement have collaborated to implement a data management system called AMANDA. The purpose of the system is to integrate the data for various functions related to tracking development. The system integrates the land use tracking subsystems in various departments into one comprehensive system for permit, land use, and geographic data pertaining to a specific parcel. Both Public Works and Building Departments use the system to track active construction sites, by grading permit or building permit. The system also helps facilitate reporting and transfer of information via report to the City's Environmental Services Department for accelerated enforcement at construction sites. Over time, the City plans to capitalize

on the system's GIS capabilities to better understand a project's relationship to local waterways and to directly link development and enforcement tracking systems.

Deficiencies Noted:

- *The City's public works and building inspectors require more training and experience to ensure compliance with erosion and sediment control requirements at construction sites.*

The evaluation team accompanied three Public Works inspectors on the inspection of three different construction sites. Although these inspectors were knowledgeable about some storm water BMPs, additional training appeared needed. For example, one inspector did not believe that a stabilized construction entrance was needed for a site, although significant tracking was evident in the street. An inspector also was not familiar with construction storm water pollution prevention plans.

ESD inspectors already conduct inspections at construction sites when referred by Public Works. The City should consider using these well-trained ESD inspectors to help educate public works and building inspectors on proper storm water inspection techniques and issues. The ESD inspectors could conduct a series of joint inspections with the public works and building inspectors. After all inspectors receive some training, the ESD inspectors could do periodic, random inspections to ensure that the public works and building inspectors are adequately following the inspection procedures. Alternatively, the public works and building inspectors could provide initial screening of sites and help prioritize inspection candidates for ESD.

The evaluation team did not accompany any Building Department inspectors on erosion and sediment control inspections.

- *The City does not require erosion control plans for flat project sites less than five acres in area.*

The City requires grading permits for three types of projects, based on slope, cubic yards of earth to be moved, and whether the project is adjacent to a watercourse. The City hands out the informational brochure "Blueprint for a Clean Bay" but does not require an erosion control plan for Type 3 projects (those projects on a less than 5% slope and less than 5 acres). The State currently requires all construction projects disturbing greater than one acre to develop a storm water pollution prevention plan and apply for an NPDES construction storm water permit. To be consistent with the State requirements, the City should require erosion control plans for all site disturbing greater than one acre.

## 2.2.5 Evaluation of Municipal Maintenance (PSR, SDO, PM) Programs

### Deficiencies Noted:

- *The City's performance standards for operation and maintenance of public streets, roads and highways, and storm drain system lack quantifiable targets.*

The City has developed five performance standards each for public streets, roads and highways and storm drain system O&M. These performance standards are primarily broad descriptions of practices (e.g., “the City will implement BMPs to reduce pollutants to the maximum extent practicable” and “City will implement a process to ensure that contractors employed to perform O&M activities use appropriate BMPs”).

The City should develop performance standards that include specific activities and are quantifiable. For example, the City has committed to inspecting and cleaning all inlets/catch basins every year, with problem areas cleaned more than once a year, yet this commitment is not included in the performance standards. The City's Industrial performance standards are an example of standards that are more specific and include quantifiable targets.

- *The Main Corporation Yard lacked adequate storm water BMPs.*  
The evaluation team inspected the City's Main Corporation Yard at 696 North 6<sup>th</sup> Street. Although a SWPPP had been developed for the yard and the site was largely in compliance, several storm water problems were identified:
  - Street sweeping debris was piled next to a downspout and less than 10 feet from a storm drain inlet. The City should identify a location for this debris that is protected from storm water runoff.
  - A number of hoses were connected to outside faucets, with some evidence of outside washing. The permit prohibits most non-storm water discharges. Maintenance staff should receive training on the prohibitions in the permit, and in most cases these hoses should be removed.
  - Several maintenance bays did not include internal drains or berms to prevent spills inside the bay from entering the storm drain less than 10 feet from the entrance to the bay. The City should consider installing berms or other controls to prevent spills from entering the storm drain.
  - Although a spill kit was available at the fueling island, the signage for the spill kit was missing.
- *The City should expand the number of BMPs addressed in their standard operating procedures (SOPs).*  
The Department of Streets and Traffic has developed SOPs that address 12 different BMPs, including saw-cut procedures, landscape chemical application, and street sweeping. The City should expand the number of BMPs addressed to also include BMPs such as storm drainage system inspection and cleaning, pothole repairs, detention basin maintenance, water line repairs, painting, and other activities. For examples of maintenance BMPs, see the California Storm water Quality Association's *Municipal BMP Handbook* (2003) available at <http://www.cabmphandbooks.com>. The City of Stockton has also developed a *Maintenance Staff Guide* to provide guidance to City staff.