

US EPA ARCHIVE DOCUMENT

## Program Evaluation Report

### San Diego Area Stormwater Program: Cities of Imperial Beach, La Mesa, San Marcos, and Vista (NPDES Permit No. CAS0108758)

#### Executive Summary

Tetra Tech, Inc., with assistance from U.S. EPA Region IX and the California Regional Water Quality Control Board, San Diego Region (Regional Board), conducted a program evaluation of 4 of the 20 copermittees implementing the San Diego Area Stormwater Program (Program) in October 2003. The purpose of the program evaluation was to determine the copermittees' compliance with the National Pollutant Discharge Elimination System (NPDES) permit (CAS0108758 and Board Order No. 2001-01) and to evaluate the current implementation status of the permittee's Jurisdictional Urban Runoff Management Program (JURMP) with respect to EPA's stormwater regulations. The program evaluation included an in-field verification of program implementation. The four copermittees evaluated were the cities of Imperial Beach, La Mesa, San Marcos, and Vista.

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 City of Imperial Beach was not adequately ensuring the implementation of erosion and sediment controls at construction sites.
- The City of La Mesa plan review and approval staff lacks specific knowledge of the Standard Urban Stormwater Mitigation Plans (SUSMP) applicability criteria, the conditioning process, as well as structural and nonstructural BMPs.
- The City of La Mesa lacks an educational program that focuses on new development and redevelopment.
- City of La Mesa staff lack the knowledge of the minimum set of best management practices (BMPs) required by the City for construction sites.
- The City of San Marcos's assessment of JURMP effectiveness appeared inadequate.
- The City of San Marcos did not adequately inspect or require compliance on capital improvement projects (CIP) construction projects and did not adequately administer contract inspection staff.

- The City of San Marcos lacked a schedule for external training sessions with local contractors and the development community.
- The City of San Marcos had inspected high-priority municipal facilities only once so far during the permit term and there was no evidence of required follow-up actions.
- The City of San Marcos had not yet completed the first annual inspection of all high-priority industrial facilities.
- The City of Vista should formalize its new development plan review process.

Several elements of the copermittees' program were particularly notable:

- The City of Imperial Beach has a proactive illicit discharge detection and elimination program that includes the recent purchase of an illicit discharge response vehicle, cost recovery for spills, and a detailed dry weather screening program.
- All City of La Mesa employees receive some type of basic stormwater awareness training.
- The City of San Marcos instituted a stormwater utility fee program two years ago to assist in funding the stormwater management program.
- The City of San Marcos' Code Compliance staff conducts "weekend inspections" to proactively reduce multiple types of municipal codes violations, including stormwater related issues.
- The City of Vista Public Works Yard had exemplary BMPs and knowledgeable, well-trained staff.
- The City of Vista effectively uses a consultant to complete comprehensive inspections of industrial and commercial facilities.

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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 (CAS0108758 and Board Order No. 2001-01) and to evaluate the current implementation status of the copermittees' Jurisdictional Urban Runoff Management Program (JURMP) with respect to EPA's stormwater 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 stormwater permit was issued on February 21, 2001, and is scheduled to expire on February 21, 2006. The current permit, the second issued to the copermittees, requires each copermittee to develop and implement a JURMP.

### 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. CAS0108758
- City of Imperial Beach Jurisdictional Urban Runoff Management Program, January 2003
- City of La Mesa Jurisdictional Urban Runoff Management Program, February 2003
- City of San Marcos Jurisdictional Urban Runoff Management Program, February 2003
- City of Vista Jurisdictional Urban Runoff Management Program, February 2003
- 2002 annual reports for each of the copermittees
- Regional Board correspondence with each copermittee
- Permittees' web sites

On October 14-16, 2003, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

<b>Tuesday, October 14</b>	<b>Wednesday, October 15</b>	<b>Thursday, October 16</b>
<ul style="list-style-type: none"> <li>• Program evaluation kickoff meeting</li> <li>• Municipal Maintenance Activities</li> <li>• Land Use Planning and Standard Urban Stormwater Mitigation Plans (office)</li> </ul>	<ul style="list-style-type: none"> <li>• Construction (office and field)</li> <li>• Industrial and Commercial Components (office)</li> <li>• Illicit Discharge Component (office)</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial and Commercial Components (field)</li> <li>• Residential Component, Education and Public Participation Components</li> <li>• Program Effectiveness</li> </ul>

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 JURMP effectiveness
- Municipal Component
- Industrial Component
- Commercial Component
- Residential Component
- Land Use Planning for New Development and Redevelopment Component, including Standard Urban Stormwater Mitigation Plans (SUSMPs)
- Construction Component
- Illicit Discharge Detection and Elimination Component
- Education and Public Participation Components

#### **1.5 Program Areas Not Evaluated**

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

- Wet-weather monitoring program and monitoring program details (e.g., sample location, types, frequency, parameters).
- Other NPDES permits issued to the copermittees (e.g., industrial or construction NPDES stormwater 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 copermittees' 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:

- A review of the program effectiveness/evaluation components of each copermittee's JURMP in coordination with the countywide effort currently underway.
- Further evaluation of the SUSMP implementation and tracking programs of each city.
- Further evaluation of how the cities establish and maintain the prioritization list for high-priority industrial sites.
- Additional review of the City of Imperial Beach's construction inspection program to verify that the City is ensuring implementation of erosion and sediment controls at construction sites.

## 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 copermittee'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 copermittees 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 City of Imperial Beach

#### 2.1.1 Evaluation of Program Management and Effectiveness

##### Deficiencies Noted:

- *The City should revise the JURMP to more accurately describe conditions within the City and highlight key program areas for City staff.*

The City uses the JURMP as the primary document to guide all City staff in implementing the stormwater program. While there are very few industrial facilities and almost no construction projects disturbing greater than one acre, the JURMP includes a detailed section on industrial facilities, but does not include specific information on the small construction activity that commonly occurs in the City. Other inconsistencies include mention that commercial sites will be inspected as needed, however the City stated during the evaluation that all commercial facilities

will be inspected at least once during the permit term. The City should ensure the usefulness of the JURMP by making sure that the JURMP addresses the City's priorities and is useful for City staff.

- *The City should develop measurable goals to assess program effectiveness.*  
In Appendix A of the 2002 Annual Report, the City completed the Assessment of JURMP Effectiveness forms, which quantify activities under each of the JURMP program areas. Although this form can help the City quantify implementation, the City should also begin to develop a long-term strategy to document the effectiveness of its stormwater program. This strategy could include the development of measurable goals, which could include not only activities from the Effectiveness Forms but also results-based goals such as the water quality awareness of residents as measured by public surveys or indicated by reductions in the number of beach closures or a reduction in the bacteria loadings to coastal waters.

The measurable goals should be linked to programmatic, social, or environmental indicators such as those listed in the 1996 Center for Watershed Protection report Environmental Indicators to Assess Stormwater Control Programs and Practices. For example, the City of Phoenix monitors social indicators like the public's knowledge of stormwater issues as a measure of success. The Sacramento Stormwater Management Program uses a variety of special studies, evaluation of performance measures, subwatershed studies, statistical analysis, modeling, and/or environmental indicators to assess the effectiveness of its program. Specifically, the Sacramento Program has identified performance or effectiveness measures for each program element best management practice (BMP) and subelement task. For example, Sacramento County tracks the number of warnings, corrective actions, penalties, and stop work orders issued as a performance measure and uses the number of illegal non-stormwater discharges reported as an effectiveness measure. The City of Sacramento has set minimum performance standards for each BMP, such as a standard to visit 20 classrooms each year to conduct stormwater presentations.

### 2.1.2 Evaluation of Land Use Planning for New Development and Redevelopment Deficiencies Noted:

- *The City should adopt a guide for City staff and local construction operators to use that fully explains the SUSMP ordinance and process.*  
The City should provide guidance for City plan review staff on how to review and approve SUSMP projects and for local construction operators on how to design, implement and maintain BMPs to meet the SUSMP requirements. Because of the small number of SUSMP projects the City receives each year, the City could adopt or reference SUSMP guidance developed by other MS4s such as the City or County of San Diego. An example manual on development planning, or SUSMPs, is also available from the City of Los Angeles at <http://www.lastormwater.org/Pages/partb.htm>.



- *The City should develop a system to track maintenance of structural and source controls.*

The City should develop a database, spreadsheet or similar system to track the installation and maintenance of structural and source controls. This tool would allow the City to formalize the process for tracking controls, required maintenance, and verification of maintenance. In addition to the standard information collected for all projects (such as project name, owner, location, start/end date, etc.), the tracking system should also include:

- Source control BMPs (type, number, location)
- Treatment control BMPs (type, number, location)
- Latitude/longitude coordinates of controls using GPS
- Photographs of controls, if necessary
- Maintenance requirements
- Frequency of required maintenance and inspections

### 2.1.3 Evaluation of Construction Program

#### Positive Attribute:

- *The City requires construction and grading permit applicants to submit a three-page stormwater management form that specifies BMPs to be implemented.*

The City's Form 7-B is a stormwater management plan form that must be completed before any construction or grading permit may be issued. This form requires the applicant to select a minimum BMP for each of several different categories of BMPs (erosion control for slopes, erosion control for flat areas, sediment control, off-site tracking control, and housekeeping), which are linked to the Caltrans Stormwater Handbook for more details.

#### Potential Permit Violation:

- *The City was not adequately ensuring the implementation of erosion and sediment controls at construction sites.*

Provision F.2 of the permit requires the permittee to identify minimum BMPs for construction sites, require these BMPs at construction sites, and inspect sites to ensure compliance. The evaluation team visited three construction sites that exhibited very few erosion and sediment controls. Although all of the sites had less than one acre of disturbed ground, they are still required to implement BMPs identified in Form 7-B such as silt fences and stabilized construction entrances. The City construction inspector appeared knowledgeable about erosion and sediment controls but did not complete an inspection checklist or distribute educational material during the inspections. The City should place a greater emphasis on erosion and sediment control compliance and provide additional inspection resources if needed.

#### Deficiency Noted:

- *The City should reconsider its process for prioritizing construction sites.*  
The City's prioritization formula for ranking high-, medium-, and low-priority construction sites included factors based on soil erosion potential, site slope, project

size, sensitivity of receiving water body, proximity to receiving water body, and non-stormwater discharges. Given the small number of construction sites in the City and the fact that almost all are less than one acre, the City should simplify its prioritization process. For example, the City could select as high priorities all construction sites disturbing more than 5,000 square feet (or another appropriate threshold). This approach would simplify the process for both the construction inspector and plan review staff.

#### **2.1.4 Evaluation of Existing Development: Municipal Program** Adequate.

#### **2.1.5 Evaluation of Existing Development: Industrial and Commercial Programs** Positive Attribute:

- *The City had committed to inspecting all commercial businesses within the permit term.*

The City had decided to focus on commercial businesses in its inspection program because of the lack of industrial facilities within the City limits. The City was beginning to inspect all the commercial businesses and had developed an inspection form and some outreach materials.

#### Deficiencies Noted:

- *The City should develop a system to track commercial facilities and inspections.*  
As the City begins its commercial inspection program, it should develop a system to track the number of commercial facilities in the City, the inspections conducted at each facility, violations identified, and follow-up actions. This system could also help the City prioritize future inspections by identifying facilities with a high potential to contaminate stormwater.
- *The City should expand their suite of stormwater education materials to better address the variety of commercial businesses.*  
Although the City had some educational materials for commercial businesses, such as restaurants, the City should use outreach materials developed for specific facility types when possible. Examples of outreach materials are available from the California Industrial and Commercial BMP Handbook (Appendix D) available at [www.cabmphandbooks.com](http://www.cabmphandbooks.com) and from the San Mateo County Stormwater Program (<http://www.flowstobay.org/content/bmp.html>).

#### **2.1.6 Evaluation of Residential, Public Education and Participation Programs** Deficiency Noted:

- *The City should focus its public education efforts on schools, using a variety of outreach materials.*  
City representatives stated that approximately 75 percent of the City's population is under the age of 17. The City has five schools, and the stormwater program has committed to conducting classroom education once a month. To ensure that the City

continues to reach students, it should explore a variety of educational programs targeting school-age children. The following are some possible examples:

- Activities are available from EPA's Nonpoint Source Kids Page, including "SPLASH!"- an interactive kids' game explaining nonpoint pollution problems (<http://www.epa.gov/OWOW/NPS/kids>).
- An award-winning video starring Bill Nye, "The Science Guy," has been produced by the Adopt-A-Stream Foundation. "The Streamkeeper Video" is designed to get students interested in watershed issues (<http://www.streamkeeper.org/catalog/video.htm>).
- EPA's Water Sourcebooks contain activities for grades K-12 and include chapters on water, drinking water and wastewater treatment; surface water resources; ground water resources; and wetlands and coastal issues (<http://www.epa.gov/safewater/kids/wsb>).

### 2.1.7 Evaluation of Illicit Discharge Detection and Elimination Program

#### Positive Attribute:

- *The City has a proactive illicit discharge detection and elimination program that includes the recent purchase of an illicit discharge response vehicle, cost recovery for spills, and a detailed dry weather screening program.*

The City purchased an illicit discharge response truck with a pressure washer and vacuum to immediately respond to spills and illicit discharges to the MS4. This truck is used frequently to clean up discharges. In addition, the City has a program to recover costs from responsible parties during spills. The City has also conducted dry weather screening of the MS4 at 48 stations on a quarter-mile grid of the City. In the last sampling period, only one station had water, and a field analysis found high pH, which resulted in an investigation (the source of the water could not be located).

## 2.2 City of La Mesa

### 2.2.1 Evaluation of Program Management and Effectiveness

#### Deficiencies Noted:

- *The City appeared to lack the interdepartmental communication necessary to fully implement their stormwater program.*  
At the time of the evaluation, the City had recently hired a stormwater technician responsible for stormwater program implementation. Previously, the City's MS4 permit had been administered through a fractured program housed in multiple city departments. The Public Works Department had been responsible for the reporting activities and development of the JURMP; however, no coordinated, comprehensive system of communication had been established to ensure overall compliance with the various permit components. Hiring a staff person to manage the NPDES program exclusively appeared to be a step in the right direction as the municipality will benefit from having a centralized coordinator for stormwater component implementation. However, the City had not yet established clear formal lines of interdepartmental coordination and communication.

- *The City's JURMP does not contain the measurable goals necessary to quantify and track progress.*

Other than improved water quality (which is very difficult to demonstrate), the City's JURMP does not include measurable goals for the Program or otherwise describe how the success of the Program will be assessed. To ensure continued support for the Program and to provide a means to measure its effectiveness, the Program should establish additional measurable goals for each program element.

The measurable goals should be linked to programmatic, social, or environmental indicators such as those listed in the 1996 Center for Watershed Protection report *Environmental Indicators to Assess Stormwater Control Programs and Practices*. For example, the City of Phoenix monitors social indicators like the public's knowledge of stormwater issues as a measure of success. The Sacramento Stormwater Management Program uses a variety of special studies, evaluation of performance measures, subwatershed studies, statistical analysis, modeling, and/or environmental indicators to assess the effectiveness of its program. Specifically, the Sacramento Program has identified performance or effectiveness measures for each program element BMP and subelement task. For example, Sacramento County tracks the number of warnings, corrective actions, penalties, and stop work orders issued as a performance measure and uses the number of illegal non-stormwater discharges reported as an effectiveness measure. The City of Sacramento has set minimum performance standards for each BMP, such as a standard to visit 20 classrooms each year to conduct stormwater presentations.

- *The City lacks formalized escalation procedures for enforcement.*
- Provision D.1 of the permit requires the City to establish, maintain and enforce adequate legal authority to control pollutant discharges into and from its MS4. The City has recently revised and amended the local stormwater ordinance (Chapter 7.18) to prohibit discharges of pollutants to the MS4. Provision 7.18.230 of the city's stormwater ordinance specifically discusses enforcement. This section describes misdemeanor violations, orders by the city engineer, and civil penalties, but it does not discuss procedures the City takes for notices to comply or a clear line of escalation enforcement procedures. Although sections 2.8.1, 3.7.1, 4.5.1, 7.8, and 8.5 of the JURMP address enforcement and follow-up procedures, the city staff interviewed during the evaluation demonstrated a lack of knowledge of formalized escalation enforcement procedures.

While the formalized escalation procedures (commonly referred to an Enforcement Response Plan) do not need to be included in the ordinance, they should be well established and widely distributed to ensure the consistent application of compliance mechanisms and escalated enforcement activities. Adherence to a formalized process will streamline the enforcement process and reduce successful appeals. The City's Code Enforcement Department may have an existing procedures manual that could be followed or used as a template.

## 2.2.2 Evaluation of Land Use Planning for New Development and Redevelopment

### Potential Permit Violations:

- *The plan review and approval staff lack specific knowledge of the SUSMP applicability criteria, the conditioning process, as well as structural and nonstructural BMPs.*

Although the City had adopted its local SUSMP, city staff responsible for plan review lacked knowledge of the local SUSMP requirements as well as specific BMPs applicable for new and redeveloped projects. Provision F.1.b. of the permit requires the municipality to ensure that all applicable new developments and redevelopments comply with local SUSMP requirements. Interviews conducted during the evaluation indicated that the plan reviewers did not correctly apply the SUSMP applicability criteria to private or public projects, specifically for redevelopments. Knowledge regarding the types of available BMPs and the appropriateness of their use was also lacking.

Additionally, provision F.1.a(5) of the permit requires the City to incorporate structural and non-structural BMPs to mitigate the projected increases in pollutant loads and flows. Stormwater quality protection and site design BMPs were not considered in development plan reviews or approvals. Although erosion control practices were generally required in site plans, standardized procedures to require adequate post-development stormwater controls for new and redevelopment projects had not been established. Standards or technical specifications had also not been developed or provided to local engineers or contractors to ensure compliance with the local SUSMP. In addition, the City did not have a mechanism to ensure ongoing long-term maintenance of all site design BMPs as required in Provision F.1.b of the permit.

As an example, Ventura County Flood Control District, as part of a copermittee subcommittee process, has developed and uses a set of sample stormwater management conditions of approval for discretionary land development activities. These sample conditions, consisting of 30 conditions in five categories, allow plan reviewers to consistently require appropriate stormwater controls for proposed land development. City plan review staff need to be very knowledgeable of the local SUSMP process. A more in-depth review of this program component appeared warranted.

- *The City lacks an educational program that focuses on new development and redevelopment.*

Provision F.1.d. requires the City to implement an educational program that focuses on new development and redevelopment. At the time of the evaluation, the City had not yet developed an educational program that specifically addressed new development and redevelopment activities. The City should develop educational materials for municipal staff, such as planning and development staff, as well as contractors, developers, and property owners. Educational materials should specifically address local, state, and federal regulations, water quality impacts from urbanization, and methods for minimizing such impacts. The City should also



consider developing training workshops that specifically address new development and redevelopment impacts as well as the plan review process.

### 2.2.3 Evaluation of Construction Program

#### Positive Attribute:

- *The City employed a dedicated stormwater inspector who focuses on erosion and sediment controls.*

The dedicated stormwater inspector inspects private construction sites for erosion and sediment controls and addresses unauthorized non-stormwater discharges, waste and construction materials management. Furthermore, the dedicated stormwater inspector inspects all of the City's high-priority construction sites.

#### Potential Permit Violation:

- *City staff lack knowledge of the minimum set of BMPs required by the City for construction sites.*

Provision F.2.f.(1) of the permit requires the City to "designate a set of minimum BMPs for high, medium, and low threat to water quality construction sites." Although construction sites had adequate stormwater BMPs, City staff demonstrated a lack of knowledge regarding the City's minimum set of construction BMPs listed in section 7.6.2 of the City's JURMP. The City must increase staff training and promote awareness of the required set of minimum BMPs for construction sites.

#### Deficiency Noted:

- *The City's private construction inspector would benefit from additional training regarding erosion and sediment control BMP selection, installation, and maintenance.*

Although the City's private construction inspector was knowledgeable about erosion and sediment control practices, it appeared that additional training would be beneficial and warranted. A few select instances of improper slope stabilization practices and the need for additional recurring BMP maintenance went unnoticed at the Parkview 18 home subdivision. Provision F.2.j of the permit requires the City to provide additional training opportunities to field staff to make sure they have the tools and education necessary to ensure that construction sites employ proper erosion and sediment control practices.

### 2.2.4 Evaluation of Existing Development: Municipal Program

#### Positive Attributes:

- *All City employees received basic stormwater awareness training.*

The training covered the differences between storm sewers and sanitary sewers, identification of primary pollutants, the in-house illicit discharge awareness "Eyes and Ears" program, and the City's stormwater policies, as well as each employee's responsibilities at work and at home. Field evaluations with municipal staff

responsible for sewer line and storm line maintenance demonstrated adequate knowledge of the BMPs to be used during routine operations. Additionally, the field staff being interviewed attributed their knowledge of municipal BMPs to in-house training.

- *The City had a well-managed and comprehensive catch basin cleaning program and is developing a database to track maintenance activities.*

The City cleans 100 percent of all catch basins and stormwater lines annually. A database for tracking maintenance activities was being developed to further expedite effective implementation and tracking of activities. As a recommendation, the tracking system might also include:

- Source control BMPs (type, number, location)
- Treatment control BMPs (type, number, location)
- Latitude/longitude coordinates of controls using GPS
- Photographs of controls, if necessary
- Maintenance requirements
- Frequency of required maintenance and inspections
- Location of problem areas

Deficiencies Noted:

- *Municipal maintenance field staff lack formalized guidance regarding BMP implementation during routine maintenance activities.*

Provision F.3.a(4) of the permit requires the development of minimum sets of BMPs for high-, medium-, and low-priority municipal areas. Although section 2.4 and table 2-4 of the JURMP addresses a minimum set of BMPs for prioritized municipal facilities, a formalized set of BMPs for routine municipal maintenance activities (e.g., landscaping, parking facilities, public buildings) was not available. Municipal maintenance field staff would benefit by obtaining a formalized set of BMPs for routine activities. Interviews with municipal staff indicated that standard operating procedures were in the process of being developed.

The City should refer to the manual developed by the County of Sacramento's Department of Transportation municipal maintenance BMP guidance manual. The City of Oceanside has also developed a formal field document that specifically addresses routine municipal maintenance activities. The document includes a list of the City's maintenance activities, maintenance procedures, and guidance, as well as associated BMPs.

- *The City's municipal operations center lacks sufficient controls to prevent stormwater contamination.*

The evaluation team conducted a site visit to the City's municipal operation center at 8152 Commercial Street. Evaluation of the yard revealed the following stormwater issues:

- Vehicles and equipment stored outside the fleet maintenance shop showed signs of leaks. Some stored vehicles lacked drip pans.

- Large spills of oil and miscellaneous fluids were found in the heavy vehicle parking area. According to staff, the spills are not cleaned up on a regular basis.
- 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.
- Empty paint barrels with no cover were found. The City Municipal Operation Center's Stormwater Pollution Prevention Plan specifically identifies the covering of paint barrels and other materials to reduce the potential of water contact. The City's municipal maintenance staff was instructed to cover the barrels.

### 2.2.5 Evaluation of Existing Development: Industrial and Commercial Programs

#### Positive Attributes:

- *The City has developed a flow chart to prioritize industrial and commercial sites.*  
In accordance with Provision F.3.b.(3) of the permit, the City has developed a flow chart to facilitate the prioritization of industrial and commercial sites. The City uses the flow chart to determine the status of new industrial and commercial facilities. The flow chart is available to all City staff and appears as Figure 3-1 in the JURMP. The flow chart helps the City ensure consistent application of the prioritization scheme for industrial and commercial facilities.
- *The City has inspected half of its high priority commercial facilities, with plans to inspect the other half this year.*  
The permit requires annual inspections of high priority industrial sites but allows each Copermittee to inspect high priority commercial sites as needed. The City is to be commended for taking the initiative to inspect these commercial sites and address any water quality problems observed.

#### Deficiencies Noted:

- *City staff lacked knowledge of the minimum set of BMPs required by the City for industrial and commercial sites.*  
Provision F.3.b.(4) of the permit requires the City to designate a minimum set of BMPs for high, medium, and low threat to water quality at industrial and commercial sites. Although sections 3.4 and 4.3 of the JURMP describe a minimum set of BMPs for industrial and commercial facilities, City staff interviewed during the evaluation were not aware of the details of these BMP requirements. To ensure BMP implementation within the business community, City staff should be aware of BMPs outlined in their JURMP as well as retain a copy of the required BMPs during industrial and commercial inspections for reference.
- *City industrial/commercial inspectors would benefit from additional training on inspection techniques and proper stormwater control practices.*  
Although the City industrial/commercial inspectors were knowledgeable about proper good housekeeping and stormwater practices, the inspectors would benefit from additional training on stormwater inspection techniques and stormwater controls at various industrial and commercial facilities. The City is encouraged to provide these



additional training opportunities to field staff to ensure they have the tools and education necessary to ensure proper stormwater control practices at commercial and industrial sites.

- *The City might need additional resources to complete inspections of industrial and commercial facilities.*

The City had an established inventory of approximately 365 commercial facilities and 165 industrial facilities that were to be inspected. Although the City had hired consultants to inspect 50 percent of all commercial facilities, the remaining commercial facilities were to be inspected by the City's sole industrial/commercial inspector. This industrial/commercial inspector also inspects all construction sites, prepares the stormwater program annual report, tracks all site inspections, conducts public education, and conducts enforcement and follow-up actions. The ability for this individual to complete the inspections in addition to the other defined tasks appeared questionable.

## 2.2.6 Evaluation of Residential, Public Education and Participation Programs

### Positive Attributes:

- *The City actively participates in the regionwide public education and participation committee.*

The City has been involved with regional workshops addressing the automotive industry, mobile trade industry, and restaurant industry, as well as a wide range of stormwater topics. Continuing to participate in regional copermitttee coordination will enhance the City's consistency with other copermitttees, increase information sharing, and increase opportunities for resource sharing.

- *The City developed a newsletter that specifically addresses stormwater pollution prevention.*

The city developed a special newsletter titled "La Mesa Water Ways" in spring 2003. The eight-page newsletter includes a discussion of stormwater pollution prevention issues, household BMPs, drainage flow through La Mesa, and contact information. The City stormwater coordinator is proposing to include the newsletter in the local newspaper three times per year.

### Deficiency Noted:

- *The City lacked adequate targeting of high-priority residential areas or specific neighborhoods with pollutant-specific educational campaigns, messages, or technical guidance.*

According to Provision F.3.d. of the permit, the City is required to identify high-priority residential areas and activities and develop BMPs specific to them. Section 5.2.3 of the JURMP discusses and identifies the four high-priority areas, but the City had yet to develop a specific strategy to address these areas of concern with educational campaigns, messages, and technical guidance.

## 2.2.7 Evaluation of Illicit Discharge Detection and Elimination Program

### Deficiencies Noted:

- The City should analyze the data collected from field screening to better target water quality programs.*

The City's consultants have generated a considerable amount of data that is currently not being used to assess water quality within the City's jurisdiction. The City should analyze this data to identify priority areas, as well as common pollutants and pollutant sources, and determine the most effective use of limited resources. This information could help the City modify existing programs to address these priority areas and identified water quality problems.
- The City lacked interagency and interdepartmental coordination during spill response situations.*

Interviews with city staff indicated that with respect to spill and emergency illicit discharge control response, staff lacked coordination among participating agencies and departments, such as the fire department, police department, public works, Regional Board, and other appropriate organizations. Provision F.5.f of the permit requires the City to "coordinate spill prevention, contamination and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times." The City is encouraged to develop a formalized coordinated process to address spill response and illicit discharge investigations.

## 2.3 City of San Marcos

### 2.3.1 Evaluation of Program Management and Effectiveness

#### Positive Attribute:

- The City instituted a stormwater utility fee program two years ago to assist in funding the stormwater management program.*

To bolster the funds provided in the general appropriation, the City of San Marcos developed a unique way to assess a stormwater utility fee on residential parcels. The City negotiated with the contracted trash hauler to include a stormwater fee on residents' trash bill. The formula is based on a set rate per Equivalent Development Unit (EDU). EDUs are determined based on imperviousness, footprint of the building and number of trash receptacles. The City reported that the funds have been instrumental in overall program management and implementation of the stormwater program.

#### Potential Permit Violation:

- The City's assessment of JURMP effectiveness appeared inadequate.*

Permit provision F.7 requires each copermitttee to "develop a long-term strategy for assessing the effectiveness of its individual Jurisdictional URMP." Each annual report is required to include "an assessment of the effectiveness of its Jurisdictional URMP

using the direct and indirect assessment measurements and methods developed in its long-term assessment strategy.” Section 11.3 of the City’s JURMP states that the “City’s program assessment will serve as a quality control mechanism to help the City determine how well the activities incorporated in the JURMP are being implemented.” Assessment forms were to be submitted in the JURMP and outline the data that would be tracked and reported in annual reports. To date, these forms have not been submitted in the annual reports and no formal tracking program has been developed to document and analyze assessment data. The lack of reporting and analysis appeared to be a potential permit violation.

The City’s program manager stated that a countywide initiative is underway to develop revised program effectiveness measures. The City must evaluate whether these countywide measures are appropriate or whether additional measures are warranted. The City needs to develop specific performance standards or goals for various activities against which performance of the activities can be measured.

Deficiency Noted:

- *Overall program management, administration and tracking appeared inadequate.* Administration of a municipal stormwater management program is a complex task. A program manager must coordinate with many departments and outside agencies, while managing budgets, data and staff. The City of San Marcos did not have a full-time administrator for the stormwater management program and current staffing levels do not appear adequate to maintain resource efficiency and overall program effectiveness. The City had contracted with a consultant for assistance with tracking certain components of the program, in addition to providing some training and annual reporting. Although this is an appropriate use of consultant staff, there appeared to be a disconnect between City staff and consultant staff regarding the status of certain program activities, permit requirements and overall data management.

The City did not have a database, electronic tracking capabilities or a GIS for tracking property information, code enforcement, permitting or municipal activities. The program should manage stormwater related data, schedules, activities and compliance milestones electronically to allow for better overall management of the program. Effective administration of the City’s MS4 program is imperative to ensure a prudent use of funds and staff while meeting the requirements of the permit and protecting water quality. In addition, this approach would better ensure accurate reporting of the City’s activities each year in its annual report.

It is recommended that the City institute a formal meeting, reporting and data tracking protocol among all departments and consultant staff (the designated “Stormwater Team”) so that program management staff will be properly apprised of activities and compliance status.

### 2.3.2 Evaluation of Land Use Planning for New Development and Redevelopment

#### Positive Attributes:

- *The engineering and plan review staff had strong knowledge of the SUSMP applicability criteria and conditioning process.*

Interviews conducted during the evaluation indicated that engineering staff and plan review staff had a clear understanding of the SUSMP applicability criteria and the process by which projects are conditioned with post-development controls.

Knowledge regarding the types of available BMPs and the appropriateness of their use was apparent. The City has conditioned private and public capital improvement projects (CIP) with post-development controls, and it was clear that the staff had an adequate level of specific training and implementation experience.

The City had developed and uses a set of sample stormwater management conditions of approval for discretionary land development activities. These sample conditions, consisting of more than 50 conditions in seven categories (including a “Water Quality” category), allow plan reviewers to consistently require, among other items, appropriate stormwater controls for proposed land development. The conditions address planning considerations (e.g., buffers, clustering, floodplain issues) as well as erosion and sediment control, pollution prevention, post-construction stormwater management requirements and maintenance. City plan review staff members are very knowledgeable of the local SUSMP process.

- *SUSMP requirements had been incorporated into the general permit application package and procedures for various types of development and redevelopment to ensure that all permit applications and projects are assessed for stormwater prioritization and SUSMP requirements.*

The City had developed several tools and procedures to ensure that SUSMP and stormwater management planning are considered at every step of the development process, as required by its permit. The general permit application package includes a requirement for a stormwater assessment for nearly every permit type. This assessment includes a checklist to be filled out by the applicant. This “Checklist for New Development and Significant Redevelopment” is to be included with the completed application package and assists the City in determining how to prioritize the project. The City has developed instructions for the applicant completing the forms and an *Urban Runoff Threat Assessment Form Manual* to outline the process necessary to prioritize a proposed project. Stormwater management requirements are discussed at an “informational meeting” held before submittal of site plans or permit applications. The Public Works Inspection Package checklist includes requirements for erosion and sediment control plans and stormwater pollution prevention plans (SWPPPs) prior to permit issuance.

- *The City had passed ordinances that allow for more forward thinking development designs that incorporate stormwater quality benefits.*

The City’s zoning ordinance (section 20.88.090) outlines the requirements for Planned Residential Development. Many of the design concepts allowed under this code reduce impervious area and increase open space. Chapter 20.52 of the City’s

zoning ordinance outlines the requirements for Specific Plan Area (SPA) zones. These zones are designed to allow maximum flexibility to the developer of large developments (50 acres or larger) within the context of an overall development program. The SPA zones, however, must preserve environmentally sensitive resources. Through these types of provisions, the zoning ordinance allows cluster development while providing significant acreage of adjoining open space. In addition, some new developments in the City are being allowed narrower streets and reduced curb and gutter requirements. Although some of these design features were proposed primarily to improve aesthetics and quality of life, including them will provide more stormwater quality benefits or improvements than more conventional land development practices.

- *The City had devised an alternative funding mechanism for the maintenance of stormwater controls at new developments.*

The City had created Community Facility Districts (CFD) that are designed, in part, to generate ongoing resources for municipal maintenance activities (lighting and landscaping) and the stormwater program on larger development projects. The CFDs are developed with a 75-year term. The development is required to maintain all BMPs on the development site for the first two years. After that, the City will maintain the BMPs using funds generated through the CFDs. So far the City of San Marcos has developed 10 to 20 CFDs with stormwater elements included in the maintenance agreements.

Deficiency Noted:

- *The City did not have a program to ensure that developers maintain BMPs in CFDs during the two years before they are turned over to the City, or a program to track, inspect and maintain the BMPs after the City is obligated to maintain them.*

As commended above, the City was using CFDs as a way to fund the maintenance of post-construction stormwater management BMPs. However, the City had not adequately addressed how it will track the BMPs within CFDs, how it will ensure that the developer maintains the structures for the two-year interim period, or how the City will manage the inspection and maintenance requirements after this period. The City should develop a database, spreadsheet or similar system to track the installation and maintenance of structural and source controls. This will allow the City to formalize the process for tracking controls, required maintenance, and verification of maintenance. In addition to the standard information collected for all projects (such as project name, owner, location, start/end date, etc.), the tracking system should also include:

- Source control BMPs (type, number, location)
- Treatment control BMPs (type, number, location)
- Latitude/longitude coordinates of controls using GPS
- Photographs of controls, if necessary
- Maintenance requirements
- Frequency of required maintenance and inspections



### 2.3.3 Evaluation of Construction Program

#### Positive Attributes:

- The City had excellent construction inspection procedures in place and highly capable staff to ensure compliance of private construction sites.*

Provision F.2.g.(1) of the permit requires the permittee to conduct site inspections for compliance with its ordinances, its permits, and the Order. The City uses "complete" construction inspectors who are assigned to a project from initial disturbance to project closeout. The use of such inspectors (who also perform inspections of grading, site design, and other functions) for ensuring installation and maintenance of erosion and sediment controls ensures a consistent presence in the field, especially during the initial project stage of rough grading. The private construction inspector evaluated was very knowledgeable of erosion and sediment control BMPs. The inspectors require a pre-construction meeting with the site superintendent and contractors to go over the SWPPP and recommended BMPs. Once construction has begun, the individual inspector has "red line" authority to make changes in the field. This authority encourages ongoing communication between the inspector and developer and helps to ensure timely and appropriate controls especially during challenging mass grading projects.
- The City developed guidance documents that outline required BMPs for high-, medium- and low-priority construction projects and distributes them to permit applicants.*

The City is required to educate the developing public about construction requirements. Staff developed three guidance documents, one for each priority level, to describe the BMPs a construction site operator should use in developing an effective SWPPP. These documents include BMPs and guidance on planning and scheduling; erosion, flow, and sediment control; site management; and materials and waste management. The documents are distributed during the project application process in the planning and engineering departments, are available to the public at the information desk in City Hall and are distributed by the construction inspector as needed in the field.
- The City's private construction inspectors did an excellent job of documenting inspections, compliance, and enforcement actions.*

The private construction field inspectors' daily inspection logs contained specific information to assist in determining compliance, including the evaluation of on-site erosion and sediment control BMPs and BMPs to address construction waste, equipment and material storage, and maintenance. The daily inspection logs also note necessary maintenance or changes to BMPs. In addition, the City uses Correction Notices and Notices of Violation forms (in triplicate) for private construction sites. Code Enforcement is copied on all notices using one of the copies. The construction inspection form included in the JURMP is completed prior to the rainy season after a letter is sent to each site informing them of the JURMP requirements. The City is in the process of changing to a weekly inspection system and will use an adaptation of the JURMP inspection form.

- *The City requires construction operators to develop a SWPPP consistent with the requirements of the statewide construction general permit.*

The City requires the same SWPPP as the State for construction sites with more than 5,000 square feet of imperviousness, or those sites rated as high-priority. For a site with less than 5,000 square feet of imperviousness but disturbing more than 50 cubic yards of dirt, the City requires an erosion and sediment control plan and compliance with the “low-priority” BMPs. Consistency between City and State construction site stormwater requirements helps both local construction operators and City construction inspectors by applying a common set of standards.

Potential Permit Violations:

- *The City did not adequately inspect or require compliance on CIP construction projects and did not adequately administer contract inspection staff.*

Provision F.2.h of the permit requires the permittee to enforce local ordinances, permits, and the Order for construction sites. Provision F.3.a.8. requires that the City enforce its ordinance at all municipal areas and activities. Reviewers visited two CIP construction projects during the evaluation. A Public Works inspector was inspecting one project; a contracted inspector was inspecting the other. Neither site was being managed to the degree of compliance as documented on the private construction sites visited during the evaluation. While neither site was compliant, the site being inspected by a contract inspector (Creekside development) was potentially in violation of the state’s construction general permit for numerous reasons, including a lack of erosion control or temporary seeding, a lack of stockpile protection, sediment tracking onto City streets, three full and blown-out cement wash out pits, open, unlabeled containers of waste oil, inadequate inlet protection, excessive litter, and inadequate sediment control. In addition, the site had not been updated to prepare for the rainy season.

The on-site contract inspector had inadequate inspection documentation although he stated that he had been trying to achieve compliance for a number of weeks. No correction notices or NOV’s had been issued. Neither the Department of Public Works nor Code Compliance had been notified of the problems. The contract inspector lacked knowledge regarding the City’s inspection documentation process, and enforcement procedures and the potential penalties used on private sites, which are outlined the JURMP. The contract inspector’s contract does not outline these procedures or protocols. The City needs to come into compliance immediately on all public projects and update all standard contract language for outside inspectors being used for large sites in the City.

- *The City lacked a schedule for external training sessions with local contractors and the development community.*

Provision F.2.j.(2) of the permit requires the permittee to schedule and routinely conduct a program to educate project applicants, contractors, developers, property owners, and other responsible parties regarding stormwater and erosion and sediment

control awareness and applicable ordinances, permits, and requirements. The City had yet to establish a schedule for future external training activities.

Deficiencies Noted:

- *Neither Public Works or Code Enforcement maintained a database to track inspections, compliance activities and reinspections.*

The City had two inspectors for all private and CIP construction projects within the City. As stated before, these inspectors were not full-time erosion and sediment control inspectors but perform other infrastructure inspections as well. To assist them with an increasing number of construction projects and inspections during the rainy season, the City should develop an electronic tracking tool to track compliance and reinspection activities.

**2.3.4 Evaluation of Existing Development: Municipal Program**

Potential Permit Violation:

- *The City had inspected high-priority municipal facilities only once so far during the permit term and there was no evidence of required follow-up actions.*

Provision F.3.a(7) requires the City to inspect all high-priority municipal facilities at least annually and implement required follow-up actions to become compliant. The City hired a contractor to perform all the initial inspections of high-priority municipal facilities, but did not provide documentation to indicate the outcome of these inspections or the implementation of follow-up activities. No follow-up inspections or year 2 annual inspections had been performed at the time of the evaluation.

Deficiencies Noted:

- *The City's corporation yard lacked adequate controls to prevent stormwater contamination.*

Provision F.3.a(4) of the permit requires the City to designate and implement adequate BMPs to prevent or reduce pollutants in runoff from all municipal facilities. The yard lacked adequate housekeeping to prevent the discharge of polluted runoff. For example, on the day of the visit, there were multiple areas of staining on the asphalt and large areas of used absorbent in open areas. In addition, the yard did not have any spill kits on site.

The City's corporation yard did not have a SWPPP or an adequate spill prevention plan to help guide the management and maintenance of the yard. Public Works developed a departmentwide stormwater management plan with BMPs listed for all Public Works activities, but there was no plan specific to the management of the corporation yard. The SWPPP developed for municipal facilities should be similar to SWPPPs developed for industrial facilities. The City is encouraged to develop a site-specific SWPPP or equivalent for the corporation yard and should evaluate the need for individual site-specific plans for other municipal facilities.



- *Municipal maintenance staff lack adequate guidance materials and training for BMP implementation in the field during routine inspection and maintenance activities.*  
The municipal maintenance field staff lacks the BMP guidance for high-, medium-, and low-priority municipal areas and activities required by provision F.3.a(4) of the permit. Although the supervisory staff retains a designated set of BMPs for municipal areas, copies are not available for maintenance crews to use in the field. Stormwater BMPs are not documented topics at any Public Works training, safety or tailgate meeting. Formalized training regarding BMPs for field staff would benefit routine municipal maintenance activities.

### 2.3.5 Evaluation of Existing Development: Industrial and Commercial Programs

#### Positive Attribute:

- *The City has conducted more than 700 inspections of high-priority commercial and medium-priority industrial facilities providing educational materials and an introduction to the City's JURMP requirements.*  
The City has inspected more than 700 facilities at various high-priority commercial and medium-priority industrial facilities. The City is now working on the second round of inspections at these facilities. Booklets developed by the City were provided at the initial inspection. The booklets outline the JURMP requirements and BMPs specific to commercial and industrial facilities. The permit requires annual inspections of high-priority industrial sites but allows each copermitee to inspect high-priority commercial sites as needed. The City is commended for taking the initiative to inspect these commercial sites and address any water quality problems observed.

#### Potential Permit Violation:

- *The City had not yet completed the first annual inspection of all high-priority industrial facilities.*

Provision F.3.b(6) of the permit requires the City to inspect high-priority industrial sites annually. At the time of the evaluation, the City had hired a contractor and inspected 16 of 23 high-priority sites. These inspections had been completed in the two weeks prior to the evaluation and staff stated that the inspections were to be completed by the end of October 2003. According to the permit, however, the City should be completing the second round of inspections by February 2004.

#### Deficiency Noted:

- *The City did not have a consistent, systematic approach regarding tracking and prioritization of inspections, follow-up, and enforcement.*  
At the time of the evaluation, the City was using existing code enforcement staff for commercial and medium-priority industrial facilities and a consultant for high-priority industrial facilities. The City had no coordinated tracking system for stormwater inspections or noncompliance. Currently, information is being documented in writing on the checklists submitted in the JURMP, but as the second round of inspections is completed, it will become more imperative that the City

develop an electronic tracking system to ensure efficiency among City and contracted inspectors. The tracking system will be useful to identify trends, evaluate and potentially redefine their existing prioritization process, and develop and distribute more targeted and effective outreach materials.

### 2.3.6 Evaluation of Residential, Public Education and Participation Programs

#### Positive Attributes:

- *North County cities have conducted a stormwater public awareness survey.*  
The City, in cooperation with other North County cities, has conducted a public awareness survey of San Marcos residents. This survey is focused on local issues that affect cities in the northern part of the San Diego MS4 area and therefore, provides information more specifically useful to local manager in that area. Respondents were asked questions on stormwater such as “Where does stormwater go?” and “What causes water pollution?” in addition to questions about respondents’ habits that could affect stormwater. Follow-up surveys are planned every two years to determine changes in stormwater awareness. The City is using the results of the current survey to target specific demographics and stormwater issues.
- *The City has combined stormwater education and outreach with the Neighborhood Watch program thereby increasing exposure.*  
Staff in the City Manager’s Crime Prevention Unit manage the City of San Marcos’ stormwater educational programs. The City regards stormwater as a quality of life issue along with issues of health and safety. Stormwater issues and residential BMPs are discussed at each Neighborhood Watch meeting, and awareness information is distributed. This approach is novel as it presents stormwater awareness as more than just an environmental issue thereby broadening the impact of the City’s message. In addition, each neighborhood participates in Neighborhood Watch; therefore, the stormwater message is distributed evenly throughout the City.

### 2.3.7 Evaluation of Illicit Discharge Detection and Elimination Program

#### Positive Attribute:

- *The City’s Code Compliance staff conducts “weekend inspections” to proactively reduce multiple types of municipal codes violations, including stormwater related issues.*

Code Compliance staff do as many as eight residential sweep inspections per weekend. These inspections are conducted to locate and eliminate a variety of residential code infractions. The inspectors use various sections of the City’s code to reduce illicit discharges and illicit connections in residential neighborhoods. Typical violations include: leaking or abandoned vehicles, RV connections to the storm sewer or ditches, abandoned appliances, open trash containers or dump areas, water softener discharges, parking lot and driveway maintenance and outdoor storage of toxic materials.

Deficiencies Noted:

- *The City needs to develop a more thorough and proactive dry weather monitoring and inspection program.*

Provision D.1.h. of the permit requires the City to “carry out all inspections, surveillance and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including prohibitions of illicit discharges.” Although the City is to be commended for performing dry weather monitoring for the last five years, the 23 sampling locations have remained static and monitoring results, pollutants of concern “hot spots,” watershed, land use, and illicit discharge or spill history did not appear to be factored into site selection and monitoring. The data generated during the annual sampling of these locations is used to determine illicit connection/illicit discharge compliance at that time, but monitoring or screening follow-up is not performed during the rest of the year.

The City did not appear to be using the collected data/information to proactively find and eliminate illicit discharges or determine appropriate areas for dry weather monitoring. The City should use existing, annual infrastructure inspection and photo documentation activities to perform a more thorough review of dry weather discharge activity. The City should also consider periodic visual inspections of outfalls in priority areas. Additional questions and data fields can be added to existing outfall inspection forms. Ultimately, it appeared that the City could use their valuable and limited resources more effectively.

- *The City relies on the Vallecitos Water District to respond to sewage spills and illicit connections without a formalized agreement in place to insure compliance and appropriate data tracking.*

Provision D.b.1 of the permit indicates that the City, as a copermittee, is responsible for preventing the discharge of sewage into the MS4 and documenting this to the Regional Board. The City does not manage or maintain the sewage treatment and conveyance structure that serves San Marcos. Currently, the City relies on the Vallecitos Water District to properly respond to sewage spills, leaks and illicit connections to the storm sewer system. Although the review did not indicate that this was an inappropriate or inadequate arrangement, it is recommended that the City and the District enter into a formalized agreement that will outline each party’s responsibilities, liability and reporting requirements.

## 2.4 City of Vista

### 2.4.1 Evaluation of Program Management and Effectiveness

#### Positive Attribute:

- *The City had clearly defined the roles of other departments in stormwater management.*

The City had documented the stormwater-related responsibilities of the relevant city departments for each component of the stormwater management program. Several departments were recently reorganized to improve the plan review and approval

process in light of the new development requirements. The delegation of responsibilities and inter-department coordination was evident in the streamlined interaction between the stormwater staff and the engineering inspectors in issuing citations for erosion and sediment control problems at construction sites, as well as the coordination between the public works department and other city departments in addressing spills and infrastructure-related repairs. The City had outlined specific goals and objectives as well as measures of effectiveness for each program component. For example, the City defined three goals for the Illicit Discharge Detection and Elimination component: (1) preventing and eliminating illicit connections and illegal discharges into and from the City's MS4, (2) compliance with the permit, and (3) using data for program reprioritization. Methods for effectiveness assessment included the number of IC/IDs eliminated, stormwater complaints received, enforcement actions taken, and trends in water quality assessments.

#### 2.4.2 Evaluation of Land Use Planning for New Development and Redevelopment Positive Attribute:

- *Before initial applications for new developments are submitted, the City meets with developers to educate them about SUSMP and other City requirements.*  
Before developers submit their first application, the City's Community Planning Department holds pre-application meetings with the developers and contractors to discuss in advance SUSMP and other City requirements. In this meeting, the City describes the new requirements for post-construction BMPs and instructs developers and contractors about the new process for plan review and approval in light of a recent reorganization of the City's departments. A recent addition to these meetings is to have stormwater code enforcement attend specifically to discuss erosion and sediment control requirements during the construction phase. The pre-application meetings have been especially important recently because developers and contractors might not be familiar with new development requirements that are now in place. The City has found these meetings to be helpful because applications and plans submitted by developers contain more of the required information, requiring fewer time-consuming revisions.

#### Deficiencies Noted:

- *The City should formalize its new development plan review process.*

Although staff were knowledgeable about SUSMP requirements and were successfully approving plans with post-development stormwater controls, no formal process that outlines the steps taken and decisions made during the review process had been established. The Community Planning Department can formalize this process in the form of flow charts or plan review checklists based on existing documentation, namely the City's Stormwater Standards Manual and checklist. This will benefit new employees involved in the plan review process and will help to reduce perceived ambiguity by the development community.

An example is the City of Los Angeles's Development Handbook, which serves as the City's primary guide for BMP selection and provides selection matrices for both

the SUSMP project categories and for projects with characteristics requiring site-specific mitigation. The Development Handbook includes required source control BMPs, prescriptive methods for selecting and designing treatment control BMPs, and additional source and treatment control BMPs that can be implemented as necessary on a site-by-site basis. The City of Los Angeles also developed the *Reference Guide for Stormwater Best Management Practices* to provide general guidance to City managers, engineers, planners, and field staff regarding how to identify, assess, and select appropriate BMPs. The Reference Guide is divided into construction, source control, and treatment control BMP sections for ease of use. City staff indicated that the Reference Guide was initially helpful in elevating their technical expertise and is currently used as a reference guide and training tool for staff.

- *An external outreach and training program for the development community should be instituted.*

Provision F.1.d(2) of the permit requires the City to implement a program to educate project applicants, developers, contractors, property owners, and community planning groups on (a) federal, state, and local water quality laws and regulations applicable to development projects; (b) required federal, state, and local permits pertaining to water quality; (c) water quality impacts of urbanization; and (d) methods for minimizing the impacts of development on receiving water quality. Although the Planning Department has a pre-application meeting and standards manual to inform developers of stormwater requirements, the City should organize one or more workshops for the development community regarding the needs for both post-development stormwater controls and temporary BMPs during active construction. The workshops should also focus on water quality considerations and other environmental requirements. This type of forum educates the development community on what is required, encourages feedback, and would augment the benefits of individual meetings with developers and contractors.

- *The City should develop a system to track maintenance of structural and source controls.*

The City should develop a database, spreadsheet, or similar system to track the installation and maintenance of structural and source controls. This will allow the City to formalize the process for tracking controls, required maintenance, and verification of maintenance. In addition to the standard information collected for all projects (such as project name, owner, location, start/end date, etc.), the tracking system should also include:

- Source control BMPs (type, number, location)
- Treatment control BMPs (type, number, location)
- Latitude/longitude coordinates of controls using GPS
- Photographs of controls, if necessary
- Maintenance requirements
- Frequency of required maintenance and inspections



### 2.4.3 Evaluation of Construction Program

#### Positive Attribute:

- *The City had devised and implemented a process that successfully incorporates both building and engineering inspectors to conduct and document stormwater inspections.*

This practice of split responsibilities allows for enforcement actions to be taken after grading activities are completed but before final site stabilization measures are in place. This is especially important because during this phase of construction, engineering inspectors are no longer on site on a regular basis. Problems seen by building inspectors are documented and quickly reported to the stormwater code enforcement officer. In contrast to many other communities evaluated, the building inspectors were trained in BMP installation and maintenance and appeared to conduct effective stormwater inspections.

#### Deficiencies Noted:

- *Standards for construction site BMPs should be reviewed and updated.*  
The City should review the BMPs that are recommended for erosion control based on the new technologies available as well as effectiveness monitoring data. Some of the practices currently recommended in the Stormwater Standards Manual might not be the most appropriate for conditions in the City and might not provide adequate water quality protection. For example, jute matting is specifically identified in the Standards Manual but is not the most effective erosion control product for many of the sites in Vista.
- *The process for enforcing erosion and sediment control requirements on inactive construction sites should be formalized with assistance from the City Attorney.*  
Provision F.2.h. of the permit requires the City to enforce its ordinances and permits at all construction sites as necessary to maintain compliance. Presently there is no contingency for ensuring that BMPs are in place and maintained to be effective on a construction site that is inactive but has not been permanently stabilized. The City typically issues citations and stop work orders to ensure that compliance is achieved, but this has proven to be ineffective for a particular inactive site (a 0.52-acre commercial development site) that was identified during the evaluation. The City should consider measures such as larger performance bonds or liens on the property to pay for any emergency BMP maintenance or installation that the City needs to perform on the property owner's behalf to prevent discharges to the MS4 or receiving waters.

### 2.4.4 Evaluation of Existing Development: Municipal Program

#### Positive Attribute:

- *The Public Works Yard had exemplary BMPs and knowledgeable, well-trained staff.*

The City's stormwater program staff conduct annual training for municipal maintenance crews specifically about stormwater pollution prevention practices. Managers at the Public Works Yard conduct biannual site inspections, the

documentation for which is submitted to the stormwater program. At the time of the inspection, the Public Works Yard itself was very well-kept: storm drain covers and spill kits were widely available and clearly labeled; stockpiled materials were covered, in some cases with permanent roofs, and had secondary containment (berms or spill control pallets); and all activities that might generate pollutants were conducted indoors. The inspection process and yard conditions could be a model for other cities.

Deficiency Noted:

- *Stormwater BMPs at two fire stations were insufficient to prevent pollution from vehicle washing activities.*

At the fire stations, best management practices to contain or treat wash water were not implemented. While provision B.4 of the permit does not prohibit wash water from non-emergency fire fighting activities, implementation of best management practices is required to reduce the discharge of pollutants during such activities. The City must implement temporary measures, such as diverting wash water away from storm drains or using vacuum collection and proper disposal, until a more permanent solution is implemented.

#### 2.4.5 Evaluation of Existing Development: Industrial and Commercial Programs

Positive Attribute:

- *The City effectively uses a consultant to complete comprehensive inspections of industrial and commercial facilities.*

The City had hired a consultant to assist with implementing the industrial and commercial facility inspection program. The City had a prioritized list of industrial and high-priority commercial facilities and a comprehensive inspection checklist. To facilitate follow-up and enforcement, inspection reports detailing deficiencies and required remedies were generated by a comprehensive database of inspection findings. The consultant inspector was well versed in NPDES regulations, appropriate BMPs, and pollution prevention management techniques. All high-priority industrial sites had been inspected and the City has conducted follow-up activities. Inspections of high-priority commercial facilities were underway, and the inspections database is being used to manage data and schedule follow-up visits and enforcement actions.

#### 2.4.6 Evaluation of Residential, Public Education and Participation Programs

Positive Attribute:

- *The City has a multifaceted public outreach and education program.*  
The City develops and distributes printed media, purchases slides to be shown at movie theaters, provides outreach at community events, conducts school education programs and workshops, and has direct communication with residents and businesses. The City also participates in regional outreach and education programs and was a partner in the North County Watershed Survey, which is focused on local issues that affect cities in the northern part of San Diego County. Respondents were asked questions on stormwater such as "Where does stormwater go?" and "What

causes water pollution?" in addition to questions about respondents' habits that could affect stormwater. Follow-up surveys are planned every two years to determine changes in stormwater awareness. The City is using data from the survey to better target future outreach activities and to identify target audiences.

#### 2.4.7 Evaluation of Illicit Discharge Detection and Elimination Program

##### Deficiencies Noted:

- The City did not appear to proactively identify and eliminate illicit discharges.* Provision F.5.a of the permit requires the City to “actively seek and eliminate illicit discharges and connections into its MS4.” The City’s program is largely reactive. The City does not actively seek out illicit discharges, conduct outfall screening, or regularly visit/inspect areas with the highest likelihood for illicit discharges and connections (dense commercial areas such as shopping centers or industrial parks). Dry weather analytical monitoring is conducted at 21 stations throughout the City, but only one sample is collected and analyzed per year, which is inadequate to effectively identify illicit discharges. The City’s program could benefit from designating key outfalls for periodic visual inspection during dry weather. The City should also clearly define baseline conditions to compare against current conditions and determine if unusual dry weather flows are present. In addition, because several commercial and industrial areas are concentrated geographically, the City should consider scheduling regular visits and inspections to actively seek out illicit discharges.
- The City should advertise and promote the use of a stormwater hotline for reporting spills and illicit discharges.* Currently calls pertaining to spills or discharges are directed through City Hall’s switchboard or through other departments, even though a stormwater hotline has been established. Although this system has been reasonably successful, less time would be lost responding to a spill or illicit discharge if most calls were made directly to stormwater staff via the hotline. The City does participate in regional programs such as Think Blue and [www.1800Cleanup.org](http://www.1800Cleanup.org), and stormwater hotline and contact information is published in these regional and other North County outreach materials. However, the City should make more of an effort to promote the hotline number to citizens to increase the frequency of its use.