

US EPA ARCHIVE DOCUMENT

## Program Evaluation Report

### City of San Diego Stormwater Program (NPDES Permit No. CAS0108758)

#### Executive Summary

Tetra Tech, Inc., with assistance from U.S. EPA Region 9 and the California Regional Water Quality Control Board, San Diego Region (Regional Board), conducted a program evaluation of the City of San Diego's Stormwater Program in October 2002. The purpose of the program evaluation was to determine the permittee's 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.

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's municipal yards lack sufficient controls to prevent stormwater contamination.
- The City has not yet implemented an adequate inspection program for high-priority industrial and commercial sources.
- The City has not provided formal training to pretreatment and food inspectors regarding how to readily identify potential violations, including unauthorized non-stormwater discharges, and required best management practices (BMPs).
- The Engineering and Capital Improvement Project (CIP) plan review and approval staff lack specific knowledge of the Standard Urban Stormwater Management Plan (SUSMP) applicability criteria and conditioning process.
- Additional guidance is needed for planners and engineers regarding downstream erosion and selection of pollutant-based structural controls.
- Building inspectors have failed to ensure adequate maintenance of private construction site erosion and sediment controls.
- Activities required to stop an active illicit discharge appeared uncoordinated and inefficient.

Several elements of the permittee's program were particularly notable:

- The JURMP establishes a formal process for ensuring accountability by each department charged with program implementation.
- The Parks and Recreation Department has developed a pollutant-based BMP manual.
- Stormwater awareness and the use of BMPs were widespread within the Water Department.
- The City of San Diego's Storm Water Pollution Prevention Program enforces the stormwater ordinance and works with the City Attorney's office to prosecute noncompliance through administrative citations, civil penalties, and criminal proceedings.
- The City's Strategic Framework Action Plan provides a mechanism for incorporating stormwater and urban runoff management goals within the General Plan.
- The City coordinates the award-winning "Think Blue" stormwater education and media program, which combines training, a Web site, public service announcements, and commercials to educate the public about stormwater and pollution prevention.
- The City's dry weather screening program is exemplary.

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## 1.0 Introduction

### 1.1 Program Evaluation Purpose

The purpose of the program evaluation was to determine the permittee's 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. 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 City of San Diego is one of 20 copermittees covered by this permit. The current permit, the second issued to the permittee, 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 San Diego JURMP, February 2002
- Regional Board comments regarding the JURMP, June 26 and August 7, 2002, and the City's response letter, July 25, 2002
- Permittee Web site

On October 15–18, 2002, Tetra Tech, Inc., with assistance from the Regional Board and EPA, conducted the program evaluation. The evaluation schedule was as follows:

<b>Tuesday, October 15</b>	<b>Wednesday, October 16</b>	<b>Thursday, October 17</b>	<b>Friday, October 18</b>
<ul style="list-style-type: none"> <li>• Program evaluation kickoff meeting</li> <li>• Municipal maintenance activities</li> </ul>	<ul style="list-style-type: none"> <li>• Land Use Planning and Construction</li> <li>• Industrial and Commercial component</li> </ul>	<ul style="list-style-type: none"> <li>• Private Construction field visits</li> <li>• Illicit Discharge Component</li> <li>• Residential, Education and Public Participation Components</li> </ul>	<ul style="list-style-type: none"> <li>• Program Management</li> <li>• Program Effectiveness</li> <li>• Public Construction field visits</li> <li>• Exit interview and presentation of preliminary findings.</li> </ul>

Upon completion of the evaluation, an exit interview was held with the permittee 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 permittee’s assessment of JURMP effectiveness
- Municipal Component
- Industrial Component
- Commercial Component
- Residential Component
- Land Use Planning for New Development and Redevelopment Component
- 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 copermitees (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 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 other copermittees not evaluated.
- Detailed review of the permittee's program(s) to address private and CIP post-development runoff once the local Standard Urban Stormwater Management Plans (SUSMPs) are enacted.
- A more intensive review and field visit of best management practices (BMPs) for municipal maintenance activities conducted by the Metropolitan Wastewater Department specifically focusing on minor municipal construction activities.
- A follow-up on the implementation progress of the industrial and commercial inspection programs.
- A more intensive review of private construction projects in the active building stage and public construction projects to better assess the use, adequacy, and maintenance of BMPs.

## 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 permittee 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 Evaluation of Program Management and Effectiveness

### Positive Attributes:

- *The JURMP establishes a formal process for ensuring accountability by each department charged with program implementation.*

To ensure comprehensive implementation, the JURMP designates a primary department and supporting department(s) for each program component. Each responsible department is then required to:

- Certify acceptance of the document.
- Establish applicable written policies and procedures.
- Maintain records as required by the permit.
- Provide staff training.
- Report the status of the JURMP implementation to the Stormwater Program (SWP).
- Provide annual compliance certification with all permit requirements that apply to the department.

The JURMP 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 JURMP also requires each department to designate a departmental coordinator who ensures implementation and coordinates activities with the SWP. With only a few exceptions, the on-site evaluation found this process to be well received and to result in a high level of departmental awareness and accountability.

- *The SWP has established a process for frequent evaluation of and feedback on departmental activities.*

The SWP has a designated staff member in charge of each component of the program, who works closely with the primary and supporting departments to ensure an open channel of communication and frequent evaluation of departmental activities. The SWP staff appeared to have a good working relationship and a good understanding of the departmental activities.

### Deficiency Noted:

- *The program could benefit from additional cross-departmental data sharing.*  
As the program continues to mature, information collected within one department (or under one program component) could be better disseminated to assist with priority setting in other program components. Examples include the following: (1) results of dry weather screening conducted as part of the IC/ID program could be used by the Water Department for their source protection initiatives, (2) dry weather screening data could be used for priority setting in the industrial and commercial inspection program, and (3) data generated from the catch basin cleaning process could be used by the IC/ID, public education, or industrial/commercial inspection program.



## 2.2 Evaluation of Municipal Component

### Positive Attributes:

- *The Parks and Recreation Department has developed a pollutant-based BMP manual.*

The manual is innovative in that a diverse work group first identified the pollutants of concern and then developed suites of BMPs to minimize their occurrence or impacts on receiving waters. The resulting manual provides approximately 30 individual BMPs grouped into four categories: organic, chemical, maintenance, and administrative. Each BMP description provides procedures; maps; monitoring frequency; additional references; both city and non-city employees who perform the task; site-specific equipment needs; possible locations of use; possible surfaces affected; procedures for spilled, dumped, or mishandled products or activities; evaluation criteria; and the staff responsible for BMP development. Individuals from multiple department sections collaborated on the BMPs to ensure their appropriateness and implementability. The manual could be a guide for other City departments or Phase I and II programs throughout the country because it describes the entire BMP development process from conception to field-testing.

- *Stormwater awareness and the use of BMPs were widespread within the Water Department.*

Field crews interviewed during the evaluation appeared to be well trained, had access to equipment, were knowledgeable of appropriate BMPs, and displayed an overall high level of stormwater awareness. Crews had access to dechlorination equipment, desilting socks, and gravel bags and maintained a stormwater BMP and training guide in their vehicles. The use of appropriate BMPs and equipment appeared to be widespread and largely integrated into daily activities. The Water Department could be used a model for other City departments.

- *All City employees receive Stormwater Pollution Prevention general training.* Approximately 90 percent of employees have received training that covers the stormwater ordinance, the permit, general information, and some selected IC/ID guidance. Each participant is given a Storm Water Pollution Report Pad to use to report observed illegal discharges to the SWP. 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 posttest 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.
- *The City sent a letter to all approved vendors that outlined general stormwater information, the stormwater ordinance, the permit, and BMPs that might be necessary if they are dischargers.*  
In addition, the City Real Estate Asset Department is sending a similar letter to businesses that rent City properties.

Deficiencies Noted:

- *The City's municipal yards lack sufficient controls to prevent stormwater contamination.*

A walk-through evaluation of the City's Chollas maintenance yard identified several deficiencies, including:

- Lack of cover or runoff containment for several fill and bedding material stockpiles
- Lack of cover or runoff containment for a large ground asphalt stockpile along the southern boundary of the property
- Multiple large automotive fluid stains
- Excessive buildup of dirt and debris due to a lack of regular sweeping
- Open lids on dumpsters
- Storm drain inlet protection BMPs in need of maintenance.

There was also evidence of equipment washing near the Water Department material stockpile storage area. The presence of the faucet, hose, and puddle extending more than 100 feet appeared to indicate that equipment was routinely washed at this location. Although a discharge was not occurring at the time of the evaluation, an observed unauthorized non-stormwater discharge would constitute a violation of the permit.

Although the general housekeeping at the 20<sup>th</sup> and B municipal yard was good, the upper parking lot appeared to need more frequent sweeping and several 5-gallon buckets of hazardous materials and torn bags of cement mix were observed outside without cover or runoff containment. Also, no inlet protection BMPs like those used at the Chollas yard were installed at this location.

An evaluation of the Roselle municipal yard identified an excessive amount of trash and what appeared to be street sweeper or vactor truck sludge dumped adjacent to the concrete wash bay. The housekeeping around the wash bay could be improved.

- *Lack of stormwater awareness and BMPs for routine and emergency Metropolitan Wastewater Department projects.*

A Metropolitan Wastewater Department field crew displayed limited stormwater awareness when interviewed during a sewer lateral repair project. The field crew indicated that dry sweeping in lieu of street washing was the only stormwater BMP regularly used. Inlet protection was not mentioned, nor did the field crew have the equipment needed to protect inlets. Based on the evaluation findings, it did not appear that Metropolitan Wastewater Department management had prepared or distributed BMP manuals or provided activity-specific training to all field crews. The department needs to identify applicable maintenance activities and then develop and implement standardized BMPs for field crews that minimize pollutant discharges. Field crews need to be trained in the application of these activity-specific BMPs.

- *Parks and Recreation Department applies fertilizer to turf areas without regard to forecasted or actual rain events.*

Department representatives indicated that the potential (or actual occurrence) of a rain event does not preclude, or alter the schedule for, the application of fertilizers.

Avoidance of fertilizer applications during rain events is not discussed in the department-wide BMP manual previously discussed in this report. Representatives indicated that the amount of acreage required to receive fertilizer was too large to allow for postponing application for forecasted or actual rain events. In addition, the use of buffer areas immediately adjacent to receiving waters was not a consideration. This fertilizer application practice appears contradictory with the goals and intent of the pollutant-based BMP manual, and the City should consider establishing BMPs to minimize the potential for fertilizer to reach receiving waters.

### 2.3 Evaluation of Industrial and Commercial Components

#### Positive Attributes:

- *The City of San Diego's Storm Water Pollution Prevention Program enforces the stormwater ordinance and works with the City Attorney's office to prosecute noncompliance through administrative citations, civil penalties, and criminal proceedings.*

There are six code compliance officers in the City, and they have been trained regarding the stormwater ordinance and enforcement process. These officers work closely with the five prosecutors in the Consumer and Environmental Protection Unit of the City Attorney's office. The City Attorney has developed the *Policy and Procedures Manual for Administrative Citations for Storm Water Minor Violations*. The manual includes a matrix that assists in the consistent and defensible application of civil penalties, which are based on environmental and compliance significance and can be up to \$10,000 per day. The intricate coordination with the City Attorney's office is commendable.

- *Project Clean Water and Think Blue (County and City) present 16 regional workshops for businesses each year, educating specific sources on the stormwater ordinance and appropriate BMPs.*  
To date, four source-specific workshops have been completed for automotive facilities. Four workshops each are to be presented for landscapers/horticulturists, mobile contractors, and food facilities.
- *The draft City of San Diego General Business Facility Storm Water Pollution Prevention Inspection Checklist is complete and thorough.*  
The checklist includes information regarding the records, Stormwater Pollution Prevention Plan (SWPPP), monitoring, site inspection, and BMPs, as well as business classifications to determine permitting requirements. The checklist is intended to ensure that City inspectors conduct a consistent and thorough inspection. Completed checklists are forwarded to the SWP for review and follow-up, if necessary.

Potential Permit Violations:

- *The City has not yet implemented an adequate inspection program for high-priority industrial and commercial sources.*

Although some of the components for an industrial and commercial inspection program have been drafted, the program has yet to be implemented. For example, a list of industrial and commercial facilities has been developed and prioritized. According to the City, there are approximately 18,000 high-priority commercial and 2,000 high-priority industrial facilities. However, the City has not yet notified all facilities of BMP requirements, initiated official inspections, trained and coordinated inspection staff, or developed tracking procedures. Currently, the City's pretreatment inspectors (78 inspections of Significant Industrial Users per year) and food inspectors (1,500 to 1,800 facility inspections per year) are only considering stormwater during regular inspections. There are databases for these inspections, but stormwater data are not being tracked. These inspections are not prioritized according to inclusion on the stormwater high-priority list, and the City has not done a crosswalk between the pretreatment/food inspections to determine how many of the high-priority facilities are being inspected or how often. The lack of an adequate inspection program for high-priority industrial sites is a potential permit violation; however, the lack of such a program for commercial sites is better classified as program deficiency as the permittee is only required to inspect these sites on an as-needed basis.

- *The City has failed to notify industries and commercial facilities of the stormwater requirements and appropriate BMPs for implementation.*  
Part F.3.b.(4) of the permit requires the permittee to implement, or require the implementation of, designated minimum BMPs (based on the site's threat to water quality rating) at each industrial site within its jurisdiction. BMP implementation was to occur no later than 365 days after the permit was adopted. At the time of the evaluation, the City had yet to implement, or inform applicable industrial sites of their responsibility to implement, appropriate BMPs. The City needs to inform all applicable industrial sites of their responsibility and also needs to provide them with the minimum BMPs as outlined in the JURMP.
- *The City does not track the details of the stormwater component of existing inspections and follow-up.*  
The City is relying on existing pretreatment and food inspection staff to inspect for general stormwater noncompliance. Although a "stormwater inspection" activity type is logged in the pretreatment and food databases, specific information regarding stormwater issues and potential violations at the facility is not tracked.

Deficiencies Noted:

- *The City has not provided formal training to pretreatment and food inspectors regarding how to readily identify potential violations, including unauthorized non-stormwater discharges, and required BMPs.*

Regular training of inspectors is needed to ensure that they are up-to-date on current policy, appropriate BMPs, and technologies applicable to facilities.

- *Pretreatment and food inspectors do not have the authority to issue Notices of Violation to facilities during a site visit.*  
If noncompliance issues are found, the inspectors must notify SWP staff, who then notify the City's code compliance officers. These officers then investigate the issue. The original inspector (pretreatment or food) does not conduct any follow-up. This appears to be a very complex administrative process that could inhibit the inspectors' ability to require immediate compliance from facilities. Refer to findings 2.6 and 2.7 for additional information regarding this deficiency.

## 2.4 Evaluation of Residential Component

### Positive Attributes:

- *The City coordinates the award-winning "Think Blue" stormwater education and media program, which combines training, a Web site, public service announcements, and commercials to educate the public about stormwater and pollution prevention.*

The City (with assistance from the County, Caltrans, and the Port of San Diego) has developed four television and three radio commercials to educate the public regarding general stormwater awareness. TV and radio stations are paid to air the commercials but must commit to in-kind contributions as well. This approach maximizes the City's advertising budget each year. The commercials aired more than 2,000 times. The Web site includes general information, policies, fact sheets, and activities for students and has been visited by more than 175,000 visitors since its launch. All information is bilingual. The "Think Blue" campaign uses a phased approach and will perform residential surveys annually to gauge the awareness level among various demographic groups. This campaign has been selected as a model for the 2002 update of EPA's *Getting In Step: A Guide to Creating an Outreach Campaign* publication.

- *The City Metropolitan Wastewater Department has an education program designed to decrease sewer spills caused by grease blockages.*  
This program targets mostly residences in certain neighborhoods that have a history of these types of spills and blockages. The City keeps a database of spills and maintenance and uses it to determine common areas. After a spill the City does a bilingual targeted mailing to the area and provides grease scrapers and information about how to spot a sewage spill. A general mailing goes out to certain neighborhoods around the holidays as well. In addition, a semiannual mailing goes out to residents in their water bills. Brochures for restaurants are being developed in English, Spanish, and Vietnamese.
- *The City is developing a new environmental curriculum for City schools that emphasizes water quality and stormwater issues.*  
The Clean Water Task Force is leading this effort, and the kindergarten and sixth grade curricula will be completed by 2003.

## 2.5 Evaluation of Land-Use Planning for New Development and Redevelopment Component

### Positive Attributes:

- *The City's Strategic Framework Action Plan provides a mechanism for incorporating stormwater and urban runoff management goals within the General Plan.*

The Five-Year Action Plan is the implementation program for updating the City's General Plan and amending community plans. Specifically, Action Item 4.d presents eight specific policies, regulations and programs regarding stormwater and urban runoff. Examples include:

- Develop a master drainage plan and associated utility district to construct and maintain an integrated system of storm water treatment facilities for new and existing development.
- Amend the Street Design Manual, the Drainage Design Manual, and the Land Development Code to minimize and reduce impervious hardscape surfaces and increase permeable vegetated surfaces, rather than only through conventional conveyance techniques.
- Improve the control of runoff, sedimentation, and erosion both during and after construction through plan review, permit conditions, field inspections and enforcement.

Lead departments charged with implementation and funding status are identified for each action item. Additional action items are included for Conservation Element, Energy Programs, Green Buildings, Environmental Education, Topographic and Open Space Resources, Resource Conservation, and Air Quality.

- *Development Services is considering the creation of Monitor positions to oversee structural controls and environmental projects.*

Development Services indicated they are considering establishing several new positions that would be specifically tasked with monitoring the design, implementation, and maintenance of structural controls throughout the City. They would also assist with monitoring other City environmental projects and responsibilities. The use of these positions for monitoring/inspecting private construction projects regarding BMP installation and maintenance is also highly recommended.

### Deficiencies Noted:

- *The Engineering and Capital Improvement Project (CIP) plan review and approval staff lack specific knowledge of the SUSMP applicability criteria and conditioning process.*

Interviews conducted during the evaluation indicated that CIP plan reviewers did not have a clear understanding of either the SUSMP applicability criteria or the process by which their own projects would be conditioned with post-development controls. Knowledge regarding the types of available BMPs and the appropriateness of their

use was lacking. The City had yet to condition any CIP projects with post-development controls, and it was unclear whether this deficiency was the result of a lack of specific training or implementation experience.

As an example, the 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 CIP plan review staff need to be very knowledgeable with the local SUSMP process. If not addressed before the local SUSMP implementation deadline, this deficiency would result in a permit violation. A more in-depth review of this program component is recommended.

- *Additional guidance is needed for planners and engineers regarding downstream erosion and selection of pollutant-based structural controls.*

Engineers and planners who will be reviewing both private and CIP projects for SUSMPs applicability and conditioning have not yet received sufficient training and guidance on how to ensure that a project will not cause downstream erosion. They also need additional training on matching effective post-development structural controls with targeted pollutants. As an example, the City may wish to review the 2000 Maryland Stormwater Design Manual's channel protection storage volume requirement. To protect channels from erosion in Maryland, the State requires that 24-hour extended detention of the one-year, 24-hour storm event be provided. Copies of this manual are available at [www.mde.state.md.us/environment/wma/stormwatermanual](http://www.mde.state.md.us/environment/wma/stormwatermanual).

## 2.6 Evaluation of Construction Component

### Potential Permit Violation:

- *Building inspectors have failed to ensure adequate maintenance of private construction site erosion and sediment controls.*

Part F.2.g.(1) of the permit requires the permittee to conduct site inspections for compliance with its ordinances, permits, and the Order. Failure to enforce these requirements during the active building phase constitutes a violation of the permit. Inspection Services had only very recently completed its inspection checklist and protocols, and actual stormwater inspections by building inspectors had yet to commence. These inspectors are to be tasked with conducting stormwater inspections of private development projects to ensure appropriate installation and maintenance of BMPs. Evaluations of one residential development project identified poorly maintained erosion and sediment controls, such as matted fiber rolls, ineffective stabilized construction entrances, construction waste piled on or near gutters, and pollutants (e.g., concrete) stored outside without cover. Although adequate BMPs had previously been installed at the site, many of the BMPs needed improved maintenance. Inspection Services needs to train its inspectors in proper BMP

maintenance procedures and should work more closely with the Field Engineering resident engineers to ensure compliance throughout the entire construction process.

Deficiencies Noted:

- *Resident Engineers and Field Engineering supervisors need continued reinforcement regarding the identification of erosion and sediment control deficiencies.*

The Santa Luz Development was inspected as part of the evaluation. Although the Resident Engineer had extensive training and generally displayed a high level of stormwater awareness, the inspection process appeared to be largely focused on sediment control; potentially significant erosion and sediment control problems went unidentified. Uncontained and uncovered stockpiles were present, and several rills and gullies were observed on slopes. Without identification and repair, the rills and gullies would likely increase in size during precipitation events. Additionally, it appeared that the Resident Engineer did not regularly review the developer's approved erosion and sediment control plans or SWPPP and therefore was unable to determine whether site conditions conformed to approved plans. The City should continue to train the Resident Engineers regarding erosion and sediment control problem identification and should require frequent verification that site conditions conform to approved plans. Part of this training could be increased participation in joint inspections with Regional Board staff.

- *Resident Engineers and building inspectors need additional training and formalized procedures regarding the overall enforcement process and their specific enforcement authorities.*

Although these inspectors consistently indicated that they were to contact their supervisors, the SWP, and/or the Code Enforcement Officers regarding any perceived problem or violation, they lacked specific knowledge regarding the enforcement process, potential penalties, and their specific enforcement authorities. In many cases, these inspectors are the first City representatives to come into contact with a responsible party, and therefore they should be knowledgeable of the process and potential penalties. Additional information regarding this deficiency is presented in finding 2.7.

## 2.7 Evaluation of Illicit Discharge Detection and Elimination Component

Positive Attributes:

- *The City's dry weather screening program is exemplary.*

The City has a regularly scheduled program to screen dry weather flows for illegal discharges. Results of dry weather screening are used to identify illicit discharges, prioritize areas for further investigation, characterize water quality, and document potential improvements as a result of the stormwater program. Monitoring for dry weather discharges includes field screening observations, field screening focusing on eight constituents, and sampling and laboratory analysis of at least 25 percent of the sites with flowing or ponded water, focusing on a wide range of constituents. The City has used the process to identify more than 30 illicit discharges in the past 6



months. This program could be a model for other Phase I and II programs throughout the country.

- *The City Metropolitan Wastewater Department has developed a Volunteer Canyon Watchers program to detect and prevent sewer leaks and spills in the City's urban canyons.*

This program educates hikers, outdoor enthusiasts, and residents about what a sewer leak looks and smells like and gives contact information to report incidents through presentations, mailings, magnets, and the like. The program has worked with the Sierra Club hiking program and has made 50 presentations to groups around the City. The City also did a targeted mailing to residents living on the rims of the canyons (the City has 42 canyons), specifically educating them about sewage leaks and spills. The program began in 2001 and has received more than 20 reports from hikers. The City is also developing an Adopt a Canyon program in which volunteers will be enlisted to inspect a canyon monthly for sewage leaks and spills.

Deficiency Noted:

- *Activities required to stop an active illicit discharge appeared uncoordinated and inefficient.*

During the evaluation an illicit discharge from a custom concrete mason was observed at a residential location. The mason was washing a portable concrete mixer, and the resulting flow was entering the storm drain system. SWP staff participating in the evaluation did not immediately inform the discharger that the activity was a clear violation of municipal code. They appeared uncertain of their authorities and could not readily describe the enforcement escalation process or required remedies to the discharger. The identification of the illicit discharge resulted in numerous calls to the SWP office and Code Enforcement personnel describing event details. Meanwhile, the discharge continued. Ultimately, a code enforcement officer was scheduled to visit the site later in the day, presumably to issue a Notice of Violation or a verbal warning and prescribe required remedies.

Like the deficiencies described in findings 2.3 and 2.6, this process appeared very inefficient and in certain instances (mobile operations, intermittent discharges, etc.) could jeopardize the City's ability to eliminate the current and future recurring discharges. The City should evaluate streamlining this process and at a minimum provide detailed instructions to SWP staff and other City building, infrastructure, industrial, and commercial inspectors regarding their authorities and the enforcement escalation process. A clear and consistent message should be provided to responsible parties at the time a discharge is identified regardless of whether the City employee has the authority to initiate an enforcement action.

## 2.8 Evaluation of Education and Public Participation Components

Note: The Education Component of the JURMP has been evaluated in relation to and documented under other components: Industrial/Commercial, Construction, Residential and Municipal.

Positive Attributes:

- *The City formed the Clean Water Task Force devoted to wastewater and stormwater issues in response to the Mayor's beaches and bays goal (50 percent reduction in postings and closures).*

The Clean Water Task Force, made up of private representatives, academics, and municipal representatives from the City and County, was established to advise the City on the policies to improve water quality and the City's Urban Runoff Management Plan. The Task Force oversees progress toward the beaches and bays goal and makes recommendations. The City reports to the Clean Water Task Force regularly on progress.