

Program Evaluation Report

San Diego Area Stormwater Program (NPDES Permit No. CAS108758)

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 3 of the 20 copermitees implementing the San Diego Area Stormwater Program (Program) in May 2002. The purpose of the evaluation was to determine the copermitees' compliance with a National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Discharge Permit and to review the overall effectiveness of the Program with respect to EPA's stormwater regulations. The evaluation team reviewed the copermitees' compliance with the NPDES permit requirements and Jurisdictional Urban Runoff Management Programs (JURMPs), including conducting an in-field verification of program implementation. The three copermitees evaluated were: the Cities of Carlsbad, Chula Vista, and El Cajon.

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 are indications of overall progress in implementing the program.

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

- The JURMPs prepared by each City do not contain the measurable goals necessary to quantify and track progress.
- All three City municipal maintenance yards lack sufficient controls to prevent stormwater contamination.
- All three Cities have failed to notify industries and high priority commercial facilities of the stormwater requirements and appropriate BMPs and have yet to implement an inspection program for industrial and commercial sources.
- The City of Carlsbad's building inspectors lack stormwater training and do not perform stormwater inspections.
- The City of Chula Vista's Building Division inspectors fail to ensure adequate maintenance of private construction erosion and sediment (E&S) controls.
- The City of El Cajon's stormwater and erosion control considerations for new development and redevelopment are inadequate.

- The City of El Cajon's plan review, inspections, tracking, and enforcement of E&S control at construction sites are inadequate.
- The City of El Cajon has not developed a comprehensive, targeted storm water education program.

Several elements of the copermittees' programs were particularly notable:

- Each City conducts routine dry weather screening activities to identify potential illegal discharges.
- The City of Carlsbad requires construction operators to develop a Storm Water Pollution Prevention Plan (SWPPP), consistent with the requirements of the statewide construction general permit.
- The North County cities have conducted a stormwater public awareness survey.
- The City of Chula Vista's private construction inspection program appears to achieve some compliance during the grading and infrastructure installation process.
- Although the City of El Cajon has not yet begun industrial and commercial inspections, the City has developed a well-planned implementation program using a prioritized list of facilities, a comprehensive database, and an inspection checklist to be used in the coming permit year.

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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 the NPDES permit (CAS0108758 and Board Order No. 2001-01) and to evaluate the current implementation status of each copermittee's JURMP (Program) with respect to EPA's stormwater regulations. Secondary goals included the following:

- Review the overall effectiveness of the Programs.
- Identify and document positive elements of the Programs 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.

This evaluation reviewed the practices and permit compliance status of three copermittees: the Cities of Carlsbad, Chula Vista, and El Cajon.

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. At the time of the evaluation, the Regional Board had reviewed the draft JURMPs from the three cities but had not yet issued formal written comments on their adequacy.

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 Carlsbad Jurisdictional Urban Runoff Management Program, February 2002
- City of Chula Vista Jurisdictional Urban Runoff Management Program, February 2002
- City of El Cajon Jurisdictional Urban Runoff Management Program, February 2002
- City of Carlsbad January 23, 2001, Report in Compliance with Regional Water Quality Control Board Order No. 90-42
- City of Chula Vista, January 29, 2001, NPDES Order No 90-42 – Report No. 21
- City of El Cajon January 2001 semi-annual report
- Copermittees' web sites
- File correspondence with the copermittees and the permitting authority

On May 13–16, 2002, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

Monday, May 13	Tuesday, May 14	Wednesday, May 15	Thursday, May 16
Program evaluation kickoff meetings.	Private and public construction field visits.	Existing development - industrial, commercial, and illicit discharge field visits.	Public participation and education, assessment of JURMP effectiveness, fiscal analysis, and watershed activities office visits.
Land-use planning and construction office visits.	Existing development - industrial, commercial, and illicit discharge office visits.	Existing development - municipal maintenance office and field visits.	All parties - exit interview and presentation of preliminary findings.

Note: Tuesday's and Wednesday's activities were reversed for Carlsbad.

Upon completion of the evaluation, an exit interview was held with the copermitees to discuss the preliminary findings. During the exit interview, the parties 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 copermitees' Assessment of JURMP Effectiveness and Fiscal Analysis Components
- Land Use Planning for New Development and Redevelopment Component
- Construction Component
- Existing Development Component
 - Industrial
 - Commercial
 - Municipal
 - Residential
- Education and Public Participation Components
- Illicit Discharge Detection and Elimination Component

1.5 Program Areas Not Evaluated

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

- Principal permittee program management activities.
- 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).

- Legal authority.
- Inspection reports, plan review reports, and other relevant files. The program evaluation team did not conduct a detailed file review to verify that all goals 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 that the following additional program areas be further evaluated:

- An evaluation of the other 17 copermittees not evaluated.
- Detailed review of each copermittee's program(s) to address post-construction runoff once the local Standard Urban Stormwater Management Plans (SUSMPs) are enacted.
- A more intensive review and field visit of BMPs for municipal maintenance yards and minor municipal construction activities.
- A follow-up on the implementation progress of the industrial and commercial inspection programs within each of the copermittees.
- A more intensive review of public construction projects to better assess the use and adequacy 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 are indications of 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 copermittee's Program. Therefore, the copermittees should not consider the enclosed list of program deficiencies a comprehensive evaluation of all individual program goals.

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 Carlsbad

2.1.1 Evaluation of Program Management

Positive Attribute:

- *The City holds a “Citizens Academy,” which includes stormwater issues, to educate and to encourage citizen involvement.*

To encourage citizen education and involvement in local government, the City has held three “Citizens Academies.” The Citizens Academy, a 6-week, multiple-night course with an optional city facility tour, offers the community a way to learn more about how the city government operates and the services it provides. One night is devoted to public works topics, including stormwater management.

Deficiencies Noted:

- | |
|---|
| <ul style="list-style-type: none"> • <i>The City’s JURMP does not contain the measurable goals necessary to quantify and track progress.</i> |
|---|

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 such as the public’s knowledge of stormwater issues as a measure of success. In another example, 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 should focus additional efforts on addressing pollutants of concern while continuing to implement existing program goals.*

The City has several waters on the Section 303(d) list of water quality-limited segments, including Agua Hedionda Creek, listed for both Diazinon and total dissolved solids. Other waters, such as Buena Vista Creek and San Marcos Creek, are on the State of California’s watch list. The City should begin to focus its efforts

on, and specifically address in its JURMP, activities to reduce the loadings and concentrations of specific pollutants impairing local waters. The Program should evaluate the effectiveness of existing program goals and, if necessary, develop new goals, or suites of BMPs, focused on targeting these identified pollutants. The Alameda Countywide Clean Water Program and the Sacramento Stormwater Management Program both have program goals that target identified water quality impairment.

2.1.2 Evaluation of Land-use Planning for New Development and Redevelopment Adequate.

2.1.3 Evaluation of Construction Program Positive Attributes:

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

The City requires the same SWPPP as the State for construction sites larger than 5 acres. For a site smaller than 5 acres, the City requires a preliminary SWPPP, or a full SWPPP may be required if the City determines the project is a “priority project.” This 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.

- *Construction inspection program includes knowledgeable “complete” inspectors, who evaluate E&S controls.*

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 grading, site design, and other inspection functions) for ensuring installation and maintenance of E&S controls ensures a consistent presence in the field, especially during the initial project stage of rough grading.

Potential Permit Violation:

- *Building inspectors lack stormwater training and inspection responsibilities.*

Parts F.2.g and F.2.h of the permit require the permittee to inspect construction sites and enforce its requirements at all construction sites. The City’s building inspectors are not tasked to routinely inspect E&S controls while on a project site. This responsibility falls to the City’s complete inspectors. Although the complete inspectors are knowledgeable about stormwater requirements, they do not have the time to adequately inspect all individual lots in a large development after these lots are sold to separate builders. Stormwater training for building inspectors and a more consistent field presence to ensure that E&S controls are maintained on these individual builder lots is necessary.

2.1.4 Evaluation of Existing Development – Municipal Program

Potential Permit Violation:

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

The evaluation team visited two City maintenance yards, El Camino Real and Impala Drive, both of which lacked adequate stormwater controls. The City is preparing to build a new municipal maintenance yard to replace both of these yards; however, even temporary stormwater controls such as silt fences were not maintained, and material stockpiles were not covered. More permanent stormwater controls also are needed, especially if the new yard is not built in the near future. For example, the Impala Drive Fleet Maintenance Yard receives used oil from the public in a self-administered recycling container only 25 feet from a storm drain. Any spills from this oil recycling area could contaminate the storm drain system.

Deficiency Noted:

- *The City lacks adequate standards for cleaning desiltation basins.*
The City has inventoried 59 desiltation basins within its jurisdiction, most of which are privately owned and maintained. The City does not have adequate standards in place to determine when these basins need to be cleaned and is therefore not providing clear direction to private property owners on the need for and frequency of maintenance. As a start toward addressing this issue, the City has formed a Drainage Basin Maintenance Team with a long-term objective to develop a formal maintenance program for these basins.

2.1.5 Evaluation of Existing Development – Industrial and Commercial Program

Positive Attribute:

- *Trial inspection reports are easy for facility operators to read and understand.*
The City has developed inspection reports for industrial and high priority commercial facilities that include pictures and written observations and recommendations for each picture. This report format provides a clear, visual, and easy-to-understand inspection report for facility owners. Although this report format was developed as a draft while the City explored different options for implementing the industrial and commercial inspection program, the City is encouraged to continue to make inspection findings easily understandable to the regulated community.

Potential Permit Violation:

- *The City has failed to notify industries and high priority commercial facilities of the stormwater requirements and appropriate BMPs for implementation.*

Parts F.3.b.(4) and F.3.c.(3) 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) at each industrial and high priority commercial 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 and high priority commercial sites of their responsibility to implement, appropriate BMPs. The City needs to inform all applicable industrial and high priority commercial sites of their responsibility and also needs to provide them with the minimum BMPs as outlined in the JURMP.

Deficiency Noted:

- *The City has yet to implement an inspection program for industrial and commercial sources.*

Parts F.3.b and F.3.c of the permit require the permittee to implement an industrial and commercial inspection program. Although many 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 high priority commercial facilities has been developed but has not been prioritized or checked for quality assurance. Other documents, such as inspection forms, reports, and enforcement response plans, have been drafted but have not been finalized. The City needs to complete these program components and to begin implementing the inspection program immediately.

2.1.6 Evaluation of Public Education and Participation Program

Positive Attribute:

- *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 with responses from more than 400 City of Carlsbad residences. 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. For example, respondents were asked if they used fertilizers, pesticides, herbicides, or fungicides outdoors at their residence (70% responded “Yes”). If the respondents answered “Yes,” they were asked how they dispose of the leftover pesticides. Most (81%) responded that they use the pesticides completely, take them to a household hazardous waste collection site, or don’t know how they dispose of them. The rest responded that they place the leftover pesticides in the trash (15%), pour them on the ground (3%), or pour/hose them down the gutter (1%).

2.1.7 Evaluation of Illicit Discharge Detection and Elimination Program

Positive Attribute:

- *The City conducts routine dry weather screening activities to identify potential illegal discharges.*

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.

Potential Permit Violation:

- *The evaluation team observed an active illicit discharge from a gas station car wash during a follow-up inspection.*
Part F.5.e of the permit requires the permittee to implement and enforce its ordinances to prevent and eliminate illicit discharges and connections to its MS4. During a follow-up inspection of a gas station car wash (the facility had previously been inspected), the evaluation team observed an active illicit discharge entering a nearby storm drain. The discharge was originating from overspray from the car wash. Although the City discussed this issue with the facility representative, it did not take definitive action to ensure that this illicit discharge was eliminated in a timely manner.

2.2 City of Chula Vista

2.2.1 Evaluation of Program Management

Positive Attribute:

- *A GIS is used to prioritize, implement, and track program activities.*
The City uses a GIS extensively to assist with the implementation and evaluation of its stormwater program. A large proportion of City staff have been trained on its use, and it is available to both office staff and field crews, providing real-time access to information and a method for recording field observations. The City has used the GIS to prioritize industrial and commercial facilities, document catch basin cleaning, inventory structural controls, track illicit discharge events, and track dry weather monitoring activities and various other activities.

Deficiencies Noted:

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|---|
| <ul style="list-style-type: none"> • <i>The City's JURMP does not contain the measurable goals necessary to quantify and track progress.</i> |
|---|

Consistent with the other cities evaluated, 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. See the similar finding in section 2.1.1 for additional information.

- *The City should focus additional efforts on identifying pollutants of concern while continuing to implement existing program goals.*

The City has not identified primary pollutants of concern in the receiving waters and therefore has yet to focus its efforts on reducing the loadings and concentrations of specific pollutants. The Program should evaluate the effectiveness of existing program goals and, if necessary, develop new goals, or suites of BMPs, focused on targeting the identified pollutants. See the similar finding in section 2.1.1 for additional information.

- *The City lacks a standardized and formal employee training program.*
Employee training is generally department-specific and is largely based on verbal instruction provided by department management and supervisors. Part F.4 of the NPDES permit requires the City to provide internal training to City staff tasked with stormwater program implementation. Additionally, the permit requires that pollution prevention practices be developed and distributed to personnel throughout applicable municipal departments. To comply with these requirements and to provide a consistent level of stormwater awareness, the City should create a general stormwater awareness program for employees (“Stormwater 101”) and more targeted training for maintenance crews, industrial and commercial business inspectors, and Building Department inspectors.

2.2.2 Evaluation of Land-use Planning for New Development and Redevelopment

Positive Attributes:

- *The City incorporated village design concepts for the Otay Ranch project.*
The City’s Otay Ranch project in eastern Chula Vista incorporates a variety of design concepts that reduce impervious area. This project is based on the new ‘urbanism village concept,’ which clusters development while providing significant acreage of adjoining open space. Additionally, some of the new development tracts within the overall project include narrower streets, split “Hollywood” driveways, and vegetative buffers immediately adjacent to the streets. Although some of these design features were proposed primarily for aesthetics, including them should provide stormwater quality benefits or improvements over more conventional land development practices.
- *The City has devised an alternative funding mechanism for stormwater controls at new developments.*
As part of the Otay Ranch project and other new developments, the City has created Community Facility Districts that are designed in part to generate ongoing resources for municipal maintenance activities and the stormwater program. The Community Facility Districts appear to be a viable alternative to the creation of new stormwater utilities, which is currently hindered by California’s Proposition 219 statute.
- *The City is currently developing a Standards Manual for Stormwater Management for Land Development and Redevelopment.*
The City has produced a draft standards manual outlining required procedures for both discretionary and ministerial land disturbances and development activities. The manual is intended to provide clear minimum stormwater management requirements for discretionary land disturbance activities, including erosion control, sediment

control, off-site sediment control, velocity reduction, materials management, structural BMP sizing, and plan notes. For ministerial projects the manual will formalize requirements for building permits, right-of-way permits, underground storage tank permits, exempt grading, and well permits. Once adopted, the manual is intended to provide technical guidance in support of the City's stormwater ordinance, the JURMP, and the local SUSMP requirements.

2.2.3 Evaluation of Construction Program

Positive Attribute:

- *The City's private construction inspection program appears to ensure some compliance during the grading and infrastructure installation process.*

The City's grading ordinance and municipal code provide the legal authority for the program, and both elements have been successfully enforced. The City's Public Works inspectors oversee the grading and infrastructure improvements (underground utilities, curb gutter, sidewalk, and final paving) for private development and also provide construction inspection services for public construction projects. The inspectors are trained in proper construction site management and inspect active grading projects daily for adequate E&S controls.

Potential Permit Violations:

- *Building Division inspectors fail to ensure adequate maintenance of private construction site E&S controls.*

Evaluations of multiple residential development projects identified poorly maintained E&S controls, such as matted fiber rolls, ineffective stabilized construction entrances, excessive construction waste piled on or near gutters, and pollutants (e.g., concrete) stored outside without cover. Although adequate BMPs had been previously installed at most sites, most of the BMPs needed improved maintenance. 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. The Building Division needs to train its inspectors in proper BMP maintenance procedures and should work more closely with the Public Works Construction Inspection program to ensure compliance throughout the entire construction process.

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

The City has yet to establish a schedule for future external training activities. Although external training has occurred, past sessions have been conducted in conjunction with Regional Board-sponsored activities. The City needs to schedule and routinely conduct its own training sessions to comply with Part F.2.j.(2) of the permit, which requires the permittee to implement a program to educate project applicants, contractors, developers, property owners, and other responsible parties regarding stormwater and E&S control awareness and applicable ordinances, permits, and requirements.

Deficiencies Noted:

- *The City's construction program lacks a formal enforcement escalation plan.*
The City needs to formalize and strengthen its enforcement process by developing a formal enforcement escalation plan specific to construction oversight. Such a plan would ensure a defensible and consistent approach to future enforcement activities and would ensure consistency in the event of staff turnover.
- *A Public Works road maintenance project failed to install E&S controls.*
Temporary E&S controls were not being used at the City's Main Street road replacement project. The project involved the excavation of road sub-base, base, and pavement that extended for more than 20 blocks. E&S controls were not deployed along the project site. The Public Works representative indicated that the indentation created by excavation was the primary BMP used at the site. Although the relative threat to water quality from this particular activity was low at the time of the evaluation, the work merited deployment of minimal BMPs such as drop inlet protection, stabilized construction entrances, and containment for material stockpiles. Additional evaluations would be required to determine whether the lack of BMPs was typical or atypical of City-sponsored construction projects.
- *The City lacks procedures and criteria for reporting on non-compliant construction and industrial sites.*
Per Parts F.2.i and F.3.b.(8) of the NPDES permit, the City is required to notify the Regional Board verbally within 24 hours and by writing within 5 days when it determines that a construction or industrial site poses a threat to human or environmental health. The City has yet to establish criteria for what constitutes a threat to human or environmental health and is therefore uncertain when Regional Board notification is required. The City needs to develop stated criteria for both the construction and industrial components.

2.2.4 Evaluation of Existing Development – Municipal ProgramPotential Permit Violation:

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

Several potential permit violations were identified at the City's old municipal yard including the following:

- Old batteries stored outside without cover
- Outdoor vehicle maintenance that was producing a visible oil sheen on an adjacent unauthorized non-stormwater discharge
- Hazardous materials improperly stored outside, without cover or secondary containment; some were stored without lids
- Vehicle washing discharging rinse waters to storm drainage facilities
- Lack of spill containment equipment for vehicle fueling areas.

Although the City was in the process of vacating this facility, its tenant, the municipal transportation agency, was actively using the facility. Bus storage, fueling, repair, and cleaning activities were under way. City representatives indicated that the State's Industrial General Permit covered the old municipal yard and a SWPPP had previously been prepared. Although the SWPPP was not reviewed as part of this evaluation, it most likely needs to be modified to reflect current site conditions. To comply with Part F.3.a.(4) of the permit, the City needs to immediately implement appropriate BMPs to remedy the identified deficiencies and ensure compliance by its tenant.

A potential pollutant source also was identified at the City's new corporate yard at 1800 Maxwell. A large stockpile of road base material without any secondary containment was observed in a corner of the yard. Although no discharge was occurring at the time of the evaluation, fine particles and drag-out from the stockpile area were evident throughout the area. Additionally, trash storage areas at the facility lacked cover and in some cases lids for the dumpsters.

Deficiency Noted:

- *The City lacks written standards for municipal maintenance activities.*
Although the City's municipal maintenance field crews appeared experienced and aware of stormwater protection activities, they did not have written standards for how routine maintenance activities should be performed to prevent water quality degradation. Such standards would be useful for new employees as well as existing staff. Written BMPs should be developed for a variety of routine activities, including roadside ditch digging, pothole patching, storm patrol, saw cutting, street marking removal, painting, post installation, roadside herbicide application, roadside mowing, tree trimming/removal, roadside vegetation and hedge trimming, vegetation truck watering, street sweeping, yard maintenance, disposal of bituminous waste and open containers, storage of materials in the yard, disposition of hazardous materials, and washing of county vehicles and equipment. As an example, the City should review the BMP handbooks developed by the County of Sacramento's Department of Transportation.

2.2.5 Evaluation of Existing Development – Industrial and Commercial Program

Potential Permit Violation:

- *The City has failed to notify industries and high priority commercial facilities of the stormwater requirements and appropriate BMPs for implementation.*

Parts F.3.b.(4) and F.3.c.(3) 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) at each industrial and high priority commercial 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 and high priority commercial sites of their responsibility to

implement, appropriate BMPs. The City needs to inform all applicable industrial and high priority commercial sites of their responsibility and also needs to provide them with the minimum BMPs as outlined in the JURMP.

Deficiency Noted:

- *The City has yet to implement an inspection program for industrial and commercial sources.*

At the time of the evaluation the industrial and commercial program was only partially established. The City had created an inventory of industrial and commercial sources, prioritized the sources, and created inspector checklists. However, the City has not initiated inspections, identified inspection staff, identified training needs for new inspectors, and developed written inspection and enforcement procedures. Given the anticipated date of hiring inspectors (late summer) and the number of high-priority facilities (more than 250), the City is currently in jeopardy of violating Part F.3.b.(6) of the permit that requires complete program implementation.

The evaluation identified the following significant areas of concern the City will likely need to address as the industrial and commercial program evolves to meet applicable permit requirements.

Training and Inspection Protocol. Public Works will need to provide training to City inspectors regarding the requirements of the local stormwater ordinance. Once trained, these inspectors should be expected to readily identify potential violations, including unauthorized non-stormwater discharges, and require remedial measures where appropriate. Additionally, the inspection process (e.g., notification, introduction, walk-through, discussion of findings, and follow-up) should be provided to each inspector as a written procedure. This will help to ensure consistent inspections. Also, the City should consider developing speaking notes or other standardized language to ensure that all inspectors provide a consistent message to the regulated community.

Enforcement Responsibilities and Response. Based on the experiences of other MS4 stormwater programs in California and the City's own construction component, the City should anticipate a high level of noncompliance in the industrial community. Therefore, the City needs to devise a consistent and systematic approach regarding inspection prioritization, follow-up inspections, and enforcement. Such procedures did not appear to exist at the time of the evaluation. Once fully initiated, the industrial program should work similarly to the City's Public Works Construction Inspection program and should maximize the combined capabilities of applicable City agencies (e.g., Special Operations, Code Enforcement) and the Regional Board. The Regional Board's participation in priority setting and enforcement should be maximized, where appropriate. The City of Sacramento's *Guidelines for Determining Administrative Penalties for Prohibited Non-Stormwater Discharges* could be used as a template for formal escalation procedures.

2.2.6 Evaluation of Public Education and Participation Program

Positive Attribute:

- *The Special Operations Department operates an extensive public education and outreach program.*

The Special Operations Department has developed a comprehensive public education program that encompasses classroom education, business/commercial education, waste oil recycling, household hazardous waste recycling, water conservation, materials recycling, and other educational activities.

The public outreach and participation activities conducted by Special Operations should be better coordinated with the Public Works Department implementing the stormwater program. Where possible, related messages communicated to the public regarding waste oil recycling, household hazardous waste collection, water conservation, watershed management, etc. should include stormwater awareness and the importance of the City's stormwater program.

2.2.7 Evaluation of Illicit Discharge Detection and Elimination Program

Positive Attribute:

- *The City conducts routine dry weather screening activities to identify potential illegal discharges.*

The City has a regular, 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, and document water quality and potential improvements as a result of the stormwater program.

2.3 City of El Cajon

2.3.1 Evaluation of Program Management

Deficiencies Noted:

- *The City lacks adequate intra-city coordination.*

To date, the City's MS4 permit has been administered through a fractured program housed in multiple city departments. The City does not have any staff dedicated entirely to the program, and there is no central "repository" for tracking all storm water program activities and data. The Public Works Department has been responsible for the reporting activities and development of the JURMP; however, no coordinated, comprehensive system of communication has been established to ensure overall compliance with the various permit components. The City plans to hire a staff person to manage the NPDES program exclusively.

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

Consistent with the other cities evaluated, 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. See the similar finding in section 2.1.1 for additional information.

- *The City should focus additional efforts on identifying pollutants of concern while continuing to implement existing program goals.*

The City has not identified primary pollutants of concern in the receiving waters and therefore has yet to focus its efforts on reducing the loadings and concentrations of specific pollutants. The Program should evaluate the effectiveness of existing program goals and, if necessary, develop new goals, or suites of BMPs, focused on targeting the identified pollutants. See the similar finding in section 2.1.1 for additional information.

2.3.2 Evaluation of Land-use Planning and New Development and Redevelopment

Deficiency Noted:

- *Stormwater and erosion control considerations for new development and redevelopment are inadequate.*

Stormwater quality protection and site design BMPs are not considered in development plan reviews or approvals. Although erosion control practices are generally required in site plans, standardized procedures to require adequate stormwater controls for new and redevelopment projects have not been established. Standards or technical specifications have not been developed or provided to local engineers or contractors. Coordination between planners, the City's engineers, and inspectors has not been formalized to ensure that adequate plans are developed, approved, and implemented in the field to maximize the removal of pollutants during and after construction. In addition, the City does not have a mechanism to ensure ongoing long-term maintenance of all site design BMPs as required in Part F.1.b of the permit.

2.3.3 Evaluation of Construction Program

Potential Permit Violation:

- *Plan review, inspections, tracking, and enforcement of E&S control at construction sites are inadequate.*

Part F.2.g.(1) requires the permittee to conduct construction site inspections for compliance with its ordinances, permits and the Order. Construction site E&S control inspections are completed sporadically and only occur until active grading is finished. An E&S checklist is not currently being used for inspections; however, a consultant has developed an NPDES checklist for use during the next permit year. A database or central file system is not used to track inspections or compliance actions. In addition, the City has not enforced E&S control requirements on construction sites. Furthermore, the City has not organized any training or distributed educational materials to inform engineers and contractors of BMPs and storm water regulatory requirements.

2.3.4 Evaluation of Existing Development – Municipal
Positive Attributes:

- *The City has well-managed and comprehensive street sweeping and catch basin cleaning programs.*
 The City has excellent, well-organized street sweeping and catch basin maintenance programs in place. A database for tracking maintenance activities is being developed to further expedite effective implementation and tracking of activities.
- *Pesticide/fertilizer application and storage facilities were well managed.*
 In general, the City does not apply pesticides, instead relying on Integrated Pest Management (IPM) techniques. All staff members are applicator-certified, and the storage facilities included adequate containment.

Potential Permit Violation:

- *The City’s municipal yard lacks sufficient controls to prevent stormwater contamination.*

The stormwater and pollution prevention practices at the City’s municipal yard lack sufficient stormwater controls as required in Part F.3.a of the permit. City crews dump the material collected from catch basins, channels, and the City’s street sweeping program into an uncovered, unprotected stockpile. In addition, several large stockpiles of waste dirt and sand are kept in the yard and are similarly unprotected. Evidence of improper cleaning of painting stencils in the parking lot of the facility was also noted. There was no secondary containment at the oil recycling facility, although it was covered. Spill absorbent was available in each building at the facility, but containers for the spent material were not easily accessible, increasing the likelihood of its being disposed of improperly. Wrecked, leaking, and abandoned cars were kept in an open lot with no curbing or containment other than an inadequate ring of gravel bags placed around the perimeter. Stormwater from the lot and facility drains, untreated, to a concrete flume that discharges directly into Forester Creek, an impaired stream. A SWPPP needs to be developed for the facility, and a single NPDES point of responsibility should be designated.

Deficiency Noted:

- *The City’s erosion control and storm water management practices for public streets and highways are inadequate.*
 E&S control BMPs were not being used at a highway construction project observed during the program evaluation.

2.3.5 Evaluation of Existing Program - Industrial/Commercial Programs
Positive Attribute:

- *The City has a well-planned industrial and commercial business inspection program.*

The City has hired a consultant to assist with implementing the industrial and commercial business inspection program. This program includes a prioritized list of industrial and high priority commercial facilities to aid the City in planning compliance inspections for the coming permit year and a comprehensive database and associated inspection checklist to create inspection reports detailing deficiencies and required remedies. Consultant inspectors were accompanied during sample inspections of two different facilities and appear to be well versed in NPDES regulations, appropriate BMPs, and pollution prevention management techniques. Except for these sample inspections, inspections of industrial and commercial businesses had not begun as of the date of this evaluation.

Potential Permit Violation:

- *The City has failed to notify industrial and high priority commercial sites of the stormwater requirements and appropriate BMPs.*

Parts F.3.b.(4) and F.3.c.(3) 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) at each industrial and high priority commercial 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 and high priority commercial sites of their responsibility to implement, appropriate BMPs. The City needs to inform all applicable industrial and high priority commercial sites of their responsibility and also needs to provide them with the minimum BMPs as outlined in the JURMP. In addition, the City has not designated the BMPs required for low-, medium-, and high-priority facilities.

2.3.6 Evaluation of Public Information/Participation Program

Potential Permit Violation:

- *The City has not developed a comprehensive, targeted storm water education program.*

The City does not have a formal program for educating the public about general nonpoint source pollution issues. Community group programs have not been developed to date, as required in Part F.4 of the permit.

2.3.7 Evaluation of Programs for Illicit Discharge Control

Positive Attribute:

- *The City has a well-managed program for monitoring and investigating illicit discharges and connections.*

The City has maintained an effective field-screening program and planned an expansion of this program. In addition, City staff are well informed regarding illicit discharges and connections, citing several incidents of discharges investigated and eliminated. A system to better track the program is also being developed. At present incidents are noted in hard copy format, but the City is in the process of incorporating

illicit discharge information into its new storm sewer database tracking system (similar to the system in place for sewer system maintenance).