

US EPA ARCHIVE DOCUMENT

Program Evaluation Report

San Diego Area Stormwater Program: Cities of Coronado, Del Mar, and Solana Beach; Port of San Diego (NPDES Permit No. CAS0108758)

Executive Summary

Tetra Tech, Inc., with assistance from the California Regional Water Quality Control Board, San Diego Region, and EPA Region IX conducted a program evaluation of 4 of the 20 copermittees implementing the San Diego Area Stormwater Program (Program) in November and December 2004. The twofold purpose of the program evaluation was to determine the copermittees' compliance with the National Pollutant Discharge Elimination System permit (CAS0108758 and Board Order No. 2001-01) and to evaluate the current implementation status of the copermittees' Jurisdictional Urban Runoff Management Programs (JURMPs) 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 Coronado, Del Mar, and Solana Beach, and the Port of San Diego.

This program evaluation report identifies potential permit violations, program deficiencies, and positive attributes. It 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 Coronado should ensure that construction sites are inspected as frequently as required by the MS4 Permit.
- The City of Del Mar should develop a centralized database to track construction and commercial inspections.
- The City of Solana Beach needs to ensure that all inspectors with stormwater responsibilities have adequate training and legal authority.
- A Port project to develop a commercial site next to the National City Marina lacked adequate erosion and sediment controls.

Several elements of the copermittees' programs were particularly notable:

- The City of Coronado operates 14 dry-weather/first flush diversion structures throughout the City.

- The City of Coronado has developed excellent printed materials to educate business owners about stormwater concerns.
- The City of Del Mar requires all new development and significant redevelopment projects to develop and implement permanent stormwater BMPs, regardless of the project size or SUSMP status.
- The City of Solana Beach has a thorough program to detect and eliminate illicit discharges.
- The Port is developing the Environmental Data and Information Management System (EDAIMS) to help manage information and document compliance with the MS4 permit.

CONTENTS

Executive Summary i

1.0 Introduction..... 1

 1.1 Program Evaluation Purpose..... 1

 1.2 Permit History 1

 1.3 Logistics and Program Evaluation Preparation..... 1

 1.4 Program Areas Evaluated 2

 1.5 Program Areas Not Evaluated 2

 1.6 Program Areas Recommended for Evaluation 3

2.0 Program Evaluation Results 3

 2.1 City of Coronado..... 3

 2.2 City of Del Mar 8

 2.3 City of Solana Beach 11

 2.4 Port of San Diego..... 14

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1.0 Introduction

1.1 Program Evaluation Purpose

The twofold 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 February 21, 2001, and is scheduled to expire 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 materials:

- NPDES Permit No. CAS0108758
- City of Coronado Jurisdictional Urban Runoff Management Program, February 2002
- City of Del Mar Jurisdictional Urban Runoff Management Program, February 2002
- City of Solana Beach Jurisdictional Urban Runoff Management Program, February 2002
- Port of San Diego Jurisdictional Urban Runoff Management Program, February 2002
- 2002/2003 annual report of each copermittee
- Regional Board correspondence with each copermittee
- Copermittees' Web sites

On November 8-10, 2004, Tetra Tech, Inc., with assistance from the Regional Board and EPA Region IX, conducted the program evaluation of all permittees except the City of Del Mar. The City of Del Mar was evaluated December 7-9, 2004. The evaluation schedule was as follows (Del Mar followed the same schedule in December):

Monday, November 8	Tuesday, November 9	Wednesday, November 10
<ul style="list-style-type: none"> • Program evaluation kickoff meeting • Municipal Maintenance Activities • Construction and Land Use Planning Components, including Standard Urban Stormwater Mitigation Plans (office) 	<ul style="list-style-type: none"> • Construction Component (field) • Industrial and Commercial Components (office) • Illicit Discharge Component (office) 	<ul style="list-style-type: none"> • Industrial and Commercial Components (field) • Residential Component, Education and Public Participation Component • Program Effectiveness

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., sampling 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 the 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 assessment:

- Further evaluation of the SUSMP implementation and tracking programs of each permittee after more projects have gone through the SUSMP approval process.

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). Areas that were found to be simply adequate – that is, not particularly deficient or innovative, are not included in this report.

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 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 Coronado

2.1.1 Evaluation of Program Management and Effectiveness

Positive Attribute:

- *The City's stormwater activities are well-coordinated.*
All of the City's major stormwater activities are conducted by the Public Services Department. This department is centrally managed, which results in regular and consistent coordination amongst those responsible for implementing different aspects of the Program. The City has been successful in working with other departments, such as the Fire Department, to ensure that stormwater concerns are being addressed in all aspects of City operations.

2.1.2 Evaluation of Land Use Planning for New Development and Redevelopment

Positive Attribute:

- *The City intends to visit SUSMP sites annually to examine maintenance records for post-construction BMPs.*
Although the City has few SUSMP projects, the City intends to track maintenance of post-construction BMPs by requiring property owners to maintain records of maintenance activities and periodically (i.e., annually) checking these records to ensure that maintenance has been completed as required. The City has yet to develop a system to track the location, specifications, maintenance requirements, and owner

information for post-construction BMPs. The City is encouraged to work with other copermittees in developing an appropriate tracking system.

Deficiency Noted:

- *The City should review SUSMP technical requirements to ensure accuracy in project proposal reviews.*

The City should review the post-construction runoff control sizing criteria to ensure it is being applied appropriately for each type of BMP being proposed in new development projects. Examination of a recent project proposal indicated that the less-stringent volume criterion was inappropriately used for the design of a flow-based BMP. Each proposal should be carefully reviewed, preferably using a checklist, to ensure that all requirements and criteria are being met.

2.1.3 Evaluation of Construction Program

Deficiency Noted:

- *The City should ensure that construction sites are inspected as frequently as required by the MS4 Permit.*

Part F.2.g(2) of the Permit states that, “at a minimum, Medium and Low Priority construction sites shall be inspected by Copermittees twice during the wet season.” Although the City has undertaken an informally scheduled inspection program, it was not clear from discussions and an examination of records that the City has a system to ensure that all construction sites throughout the City are inspected twice during the wet season. The City could develop a regularly updated list of active construction sites (for example, from building permit records) that can be used in concert with the City’s current method of inspections to ensure that all sites are inspected as per Permit requirements. Additionally, the City should ensure that inspectors conduct a thorough inspection at each site (i.e., not a drive-by or ‘windshield examination’).

- *Additional training for the City's construction site inspectors is needed to ensure that storm water problems at construction sites are not overlooked.*

The City’s inspector is capable, has an effective inspection protocol, and works well with other City staff and construction contractors. However, the inspector overlooked several inadequately installed BMPs at the City Hall construction site. The inspector could use additional training in identifying and correcting storm water problems at construction sites. The inspector would benefit from attending training courses and conferences on advances in erosion and sediment control technology and techniques. Such courses and conferences are offered nationally by the International Erosion Control Association, and local courses and conferences are also available.

2.1.4 Evaluation of Existing Development: Municipal Program

Positive Attributes:

- *The City conducts daily street sweeping in priority areas and sweeps the entire City weekly.*

The City has committed substantial resources to conduct street sweeping operations at a high frequency throughout the year. Sweeping of commercial and high-visibility areas is conducted daily and the remainder of the City is swept weekly. Alleys, which have a high potential to generate pollutants because garbage containers are stored there, are included in the weekly sweeping route.

- *The City operates 14 dry-weather/first flush diversion structures throughout the City.*

The City received a grant to construct dry/wet weather pollutant diversion structures that pump nuisance water and the first flush of stormwater to the sanitary sewer. The City selected key points throughout the City for these diversion structures based on the nature of each drainage area and expected benefits to receiving water quality. Three of these diversions have been operating successfully for several months and have reduced the number of stormwater discharges to the ocean; as reported in the City's 2003–2004 Annual Report, the diversion pumps were activated 11 times prior to expected rain events, resulting in the diversion of nearly 7 million gallons of nuisance water to the sanitary sewer. Eleven more diversion structures came online in June 2004.

Deficiencies Noted:

- *The City should develop site-specific SWPPPs for each of its major municipal facilities.*

Although not specifically required to develop a SWPPP, the corporation yard and other municipal storage facilities could benefit from a plan that describes the activities, potential pollutant sources, BMPs, training, and responsibilities for the facility.

- *The City's municipal maintenance crews were not implementing stormwater and good housekeeping BMPs while performing minor construction at a Coronado Cays park.*

A City crew was installing a wall at a park and had not established perimeter controls or covered stockpiles of materials in an adjacent parking lot. There was evidence of dirt tracking from heavy equipment that had not been swept in a timely manner. The staff claimed to not know about stormwater controls and therefore could benefit from regular training on storm water BMPs and good housekeeping practices in general.

- *The City should remedy several housekeeping problems observed at municipal sites.*

The following steps should be taken to reduce the potential for pollutants to enter the MS4 at municipal facilities throughout the City:

- Main corporate yard: prevent runoff from grass/trash storage areas by installing berms to ensure that all runoff is diverted to the sanitary sewer; ensure that outdoor trash bins are covered, or move trash storage indoors.

- 1st and Alameda storage yard: cover/remove pesticide sprayer if not in use, install better dumpster covers to replace ripped tarps, and cover or remove stockpiled creosote-treated pilings/poles.
- Golf course/maintenance facility: Ensure that the locker next to the fueling area containing the spill kit remains unlocked when the fueling area is in operation.
- *The City lacks formalized procedures and guidance for routine municipal maintenance activities.*
The City should develop a formalized set of municipal maintenance procedures and a guidance document to assist in routine municipal activities. The document should include good housekeeping BMPs for municipal maintenance activities and BMPs for municipal maintenance activities such as catch basin cleaning, saw cutting, lateral replacement, and road patching. Developing a municipal maintenance guidance document will benefit the City by maintaining a level of consistency among field staff activities. For example, the City of Oceanside has 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 CASQA Municipal Handbook (www.cabmphandbooks.com/municipal.asp) can also be a resource for BMP information to develop a manual for the City.

2.1.5 Evaluation of Existing Development: Industrial and Commercial Programs

Positive Attribute:

- *The City has developed excellent printed materials to educate business owners about stormwater concerns.*

The City developed several brochures for local businesses that are considered to have high pollution potential. These include the landscaping, food service, and construction industries. The brochures are produced in both English and Spanish and include concise text and clear graphical representations of potential pollution sources and appropriate BMPs that are specific to the activities of each industry. Brochures for other businesses are soon to be produced and distributed, including mobile services and a general commercial brochure. The City inspector distributes these brochures during inspections and marks the areas needing improvement at each site directly on the brochures for the business owner's reference. Copies of the brochures are available on the City's Web site at <http://www.coronado.ca.us/ContentPage.asp?ContentID=94>.

Deficiencies Noted:

- *The City should develop a commercial stormwater inspection form.*
The City has an existing grease trap inspection program for restaurants and has a checklist for these inspections. The grease trap inspections have been expanded to include a stormwater component, but the inspection form was not modified to incorporate stormwater inspection items such as outdoor washing, trash disposal areas, storm drains, and other stormwater issues. This inspection form would be an asset to the inspector by guiding the stormwater portion of the inspection, ensuring

that nothing is missed, and improving recordkeeping. It can also be used to educate business owners and improve compliance, especially if the form is produced in duplicate and a copy is given to the business owner at the time of the inspection.

- *The City should consider expanding the types of facilities addressed by commercial stormwater inspections.*

The City is beginning to conduct annual inspections of high-priority facilities that include restaurants, automotive repair facilities, fuel stations, and marinas. The City does not perform any additional commercial inspections. In light of the fact that there are no high-priority industrial facilities within the City limits, the City should consider conducting additional inspections in priority areas or targeting priority businesses with a potential to impact stormwater quality. One of these might be the Coronado Cays Homeowner's Association storage yard, which is located adjacent to a waterbody in a high-priority area.

2.1.6 Evaluation of Residential Program and Public Education and Participation Program

Positive Attribute:

- *The City prevents car washing on public streets and rights-of-way.*
The City enacted an ordinance to prohibit individual car washing in public rights-of-way. Residents can legally wash their cars in their driveways or on their lawns but can be subject to penalties for washing cars in the street. The City encourages the use of automated car washes to prevent detergent-laden water from entering the storm drain system.

2.1.7 Evaluation of Illicit Discharge Detection and Elimination Program

Positive Attribute:

- *The City offers services to residents and businesses to help reduce illicit discharges.*
The City has two Vactor trucks in service, which are used for regular maintenance of the storm drain system, for spill response, and to provide pumping services to residents and businesses in an effort to reduce discharges to the storm drain system. For example, the City now offers a free service to pump swimming pool water to the sanitary sewer because of past incidents where residents were pumping this water into the storm drain or receiving waters. Also, when Vactor trucks are used to clean up spills, the City recovers costs by billing residents and businesses for services rendered.

2.2 City of Del Mar

2.2.1 Evaluation of Program Management and Effectiveness

Positive Attribute:

- *The City's management team demonstrated a high level of support for the stormwater program.*

Although the City has contracted with consultants to provide program implementation, guidance, and document development, there is a high level of support from the City management team. During in-office interviews, the evaluation team observed great support and stormwater program awareness department-wide (including the Planning, Public Works, Engineering, and Code Enforcement departments). Furthermore, department heads participate in weekly staff meetings that include stormwater compliance discussions. The City is encouraged to maintain this level of support in an effort to implement a successful Program.

Deficiency Noted:

- *The City lacks adequate document recordkeeping and organization.*

The City currently contracts with a consultant to provide support and guidance for the implementation of their municipal stormwater program. The evaluation team observed that the City did not maintain copies of all documents on-site. For example, while reviewing an industrial file for the Eucalyptus Stoneware facility, an inspection report was not available for review. The industrial inspection report was stored at the consultant's office and was not readily available to City staff. It is vital for the City inspectors to maintain this information to document past activities at the industrial facility to facilitate future inspections. The City should develop a mechanism to improve document retention and availability for all City staff. For example, the City could maintain original copies of all documents and give copies for the consultant's use, or a database could be developed to automatically share information between the City and consultant.

2.2.2 Evaluation of Land Use Planning for New Development and Redevelopment

Positive Attribute:

- *The City requires all new development and significant redevelopment projects to develop and implement permanent stormwater BMPs, regardless of size or SUSMP status.*

The City Planning and Engineering Department requires all projects to develop and implement on-site stormwater source controls, regardless of size and SUSMP status. Section III of the City's SUSMP states that "The City of Del Mar's Stormwater Management and Discharge Control Ordinance (Del Mar Municipal Code Chapter 11.30), requires that all new development and redevelopment activities comply with the stormwater pollution prevention requirements. These stormwater pollution prevention requirements, which are described in detail in Section III, 'Permanent Stormwater Best Management Practices Selection Procedure,' are site specific and

vary based on the project's potential impact on receiving water quality." For example, the City had required the Maratta project to design and incorporate a vegetated swale for stormwater runoff. The Maratta project was not required to comply with SUSMP requirements, but was required by the City to construct a long-term post-construction BMP.

2.2.3 Evaluation of Construction Program

Positive Attribute:

- *The City construction inspector had adequate knowledge, resources, and legal authority to conduct the inspections.*
The City construction inspector was knowledgeable in regards to installation and maintenance of erosion and sediment stormwater controls. The construction inspector also distributed stormwater outreach materials to on-site construction contractors. The construction inspector had adequate legal authority to issue citations and/or stop work orders. During the Foster single-family home construction site inspection, the inspector demonstrated adequate knowledge of BMPs implemented on-site and ensured BMPs were properly maintained.

Deficiency Noted:

- *The City should develop a centralized construction database available to all City staff.*

The evaluation team identified various departmental construction databases; all of which were tracking different fields for the purposes of each department. Section F.2.g(2) of the permit requires that all high priority sites must be inspected weekly and medium and low priority sites must be inspected at least twice during the wet season. The City construction inspector maintains a database that primarily tracks code enforcement violations, but lacks the tracking of formal inspections as required by the permit. Furthermore, inspections are conducted by both the consultant and the City Code Enforcement officer. Due to the use of multiple tracking systems and use by multiple staff members, the City was encouraged to develop a centralized construction database available to all City staff to help document compliance with the construction inspection requirements.

- *The City should provide information on minimum BMPs required at each construction site during the project application phase.*
The City did not provide project applicants with information on the minimum BMPs requirements at construction sites during the information and application phase. Providing information on the minimum BMPs expected at sites early in the project development phase will help both applicants and the City to develop and approve more effective stormwater plans.

2.2.4 Evaluation of Existing Development: Municipal Program

Adequate.

2.2.5 Evaluation of Existing Development: Industrial and Commercial Programs

Positive Attribute:

- *The City industrial inspector had adequate knowledge, resources, and legal authority to conduct routine industrial inspections.*

The City industrial inspector demonstrated adequate knowledge of stormwater controls associated with industrial and commercial activities. The City inspector was equipped with a thorough checklist as well as legal authority to issue citations for stormwater violations. For example, the inspector observed a floor drain, at the Eucalyptus Stoneware facility, which might have been connected to the storm sewer system. The inspector requested that the facility manager identify the drain's discharge point and explained that if the drain is connected to the storm sewer system, it would be in violation of both the local ordinance and the Clean Water Act. Furthermore, the inspector scheduled a follow-up inspection within the week to determine the discharge destination of the drain and whether enforcement actions were necessary.

Deficiencies Noted:

- *The City needs to maintain a centralized database system to track commercial inspections.*

The City contracts with a consultant to conduct routine commercial inspections. The consultant maintains a database at an off-site location. During the evaluation, the City inspector was unable to demonstrate the database that tracks commercial facility inspections. The City should maintain a centralized database system that would be available to both the City staff as well as the consulting staff. The database should also include the tracking of high priority site inspections as well as follow-up actions (Section F.3.c.(4) of the General Permit).

- *The City should develop a follow-up inspection form to expedite the inspection process.*

Although the City's industrial/commercial inspection forms were very detailed and accurate, the City should consider developing a condensed version of the inspection form to expedite the follow-up inspection process. A foreseen problem for the industrial and commercial inspectors is the amount of time allotted to complete the checklist. In general, complete inspections incorporate two aspects; 1) assessing protection and compliance with the stormwater program and 2) stormwater education. In some cases, the checklist may divert the attention taken to conduct a complete inspection. The City may consider using the detailed inspection form to satisfy the requirements of the permit (Section F.3.b(6)(b)). The condensed version of the inspection form could be used for follow-up inspections.

2.2.6 Evaluation of Residential Program and Public Education and Participation Program

Adequate.

2.2.7 Evaluation of Illicit Discharge Detection and Elimination Program Adequate.

2.3 City of Solana Beach

2.3.1 Evaluation of Program Management and Effectiveness Positive Attributes:

- *The City holds an NPDES team meeting monthly, facilitating intra-city coordination.*
The City's NPDES team includes the City's assistant manager, environmental specialist, public works supervisor, code compliance officer, and assistant planner. The City engineer and chief of the fire and public safety department also attend periodically. Agendas are developed prior to each meeting and minutes and meeting materials are kept on file.
- *The City is pursuing an alternative funding mechanism for its stormwater program.*
The City's stormwater program is currently funded through the City's General Fund. The City is seeking an alternative funding mechanism through adding a fee to the solid waste collection. The proposal has been developed and is awaiting City Council approval.
- *The City participated in a telephone survey to examine the knowledge, awareness, and behavior of residents in North County cities.*
The City participated in a telephone survey to examine the knowledge, awareness, and behavior of residents in North County cities. The City has used the results to target audiences who are less aware of stormwater issues. In addition, the City hopes to participate in a second survey, which would indicate any changes in residents' knowledge, awareness, and behavior from the baseline levels, demonstrating the effectiveness of the City's outreach programs.

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

- *The City is working towards developing a program in cooperation with other North County cities to track post-construction BMPs.*
The City is working towards developing a program in cooperation with other North County cities to track post-construction BMPs in the Carlsbad watershed. It would also include the portions of Solana Beach in the San Dieguito watershed. The current draft design shows the following components: case number, review date, project name, project type, address, assessor parcel number, project size, type of SUSMP BMP, watershed, maintenance agreement, and comments.

Deficiencies Noted:

- *The City should develop a checklist for determining whether SUSMP project plans are adequate.*
Currently, the City's civil engineer reviews and approves the City's SUSMP projects. As the number of qualifying projects increases, it would be beneficial to develop a checklist that lists the required SUSMP elements to ensure that staff can determine whether the projects meet the requirements specified in the SUSMP.
- *The City should develop a mechanism to ensure that privately-owned post-construction BMPs are properly operated and maintained.*
Currently, the City requires SUSMP project applications to include maintenance procedures for any post-construction BMPs. A procedure, schedule, and enforcement protocol should be developed to periodically verify that structural and source controls in new developments are properly maintained.

2.3.3 Evaluation of Construction ProgramPositive Attributes:

- *The City has developed a formal escalated enforcement matrix.*
The City's Civil Penalty Matrix designates specific enforcement penalties based on the significance of non-compliance in addition to the environmental significance of the violation. Penalties range from a notice of violation to a \$1,000 dollar fine. The matrix also includes examples of violations for each level of enforcement.
- *The City issues a "rainy season reminder" letter to each active construction site prior to the rainy season each year.*
The City distributes a reminder letter to each construction site prior to the rainy season that describes minimum measures that must be implemented, including training site personnel and performing self-inspections.

Deficiency Noted:

- *The City needs to ensure that all inspectors with stormwater responsibilities have adequate training and legal authority.*

The City contracts with an inspector for its public project inspections. Although the contract inspector was knowledgeable on stormwater issues and BMPs, the contract inspector did not appear to be effectively enforcing the permit. The City inspector noted the deficiencies during the evaluation and addressed the problems by issuing a Notice of Correction later that day. When hiring inspectors, the City should ensure that the contract inspector is effectively enforcing the permit and that communication between the City and the contract inspector is maintained.

2.3.4 Evaluation of Existing Development: Municipal ProgramPositive Attribute:

- *The City has developed a weather-triggered action plan for its municipal yard and conducts inspections weekly.*

The City has developed a site-specific weather triggered action plan to be implemented whenever there is a 60 percent chance of rain or greater. In addition, the public works crew inspects the yard on a weekly basis.

2.3.5 Evaluation of Existing Development: Industrial and Commercial ProgramsPositive Attribute:

- *The City prioritizes commercial sites more stringently and inspects industrial and commercial sites more frequently than required by the permit.*

The City has prioritized all of its commercial sites as high, and inspects them annually. In addition, the City's only industrial site has been inspected several times in the past year, although only annual inspections are required by the MS4 Permit.

2.3.6 Evaluation of Residential Program and Public Education and Participation ProgramPositive Attribute:

- *The City's residential program and public education and participation program distribute helpful information and target specific audiences.*

The City distributes twice per year its newsletter *Shorelines* to all the residences and businesses in the City. The newsletter describes the NPDES program and addresses topics like proper disposal of household hazardous materials, pollution minimization, the stormwater hotline, and beach clean-up days. The City has also targeted residents through their homeowners associations (HOAs) by distributing stormwater tips in newsletters distributed by two HOAs within the City.

2.3.7 Evaluation of Illicit Discharge Detection and Elimination ProgramPositive Attribute:

- *The City has a thorough program to detect and eliminate illicit discharges.*

The dry-weather screening program includes 8 sampling sites for field observations and field water quality analysis. In addition, water samples are taken at 4 sites for laboratory analysis. When high levels of pollutants are detected, the City conducts upstream follow-up investigations to determine the source of pollution. Door hangers are distributed in neighborhoods surrounding the pollution source. In addition, complaints directed to the hotline and any enforcement actions are maintained in a database. Recently, high levels of coliform have been detected at one site, and the City is looking into the possibility of implementing a pilot program to test the effectiveness of UV treatment.

2.4 Port of San Diego

2.4.1 Evaluation of Program Management and Effectiveness

Positive Attributes:

- *The Port's Environmental Services Department has a well-trained and knowledgeable staff dedicated to the stormwater program.*
The Port's Environmental Services Department has five full-time employees, in addition to interns and consultants, working on the stormwater team. The staff was well-trained and knowledgeable about the stormwater Program and requirements, providing the Port significant resources to implement the Program.

- *The Port is developing the Environmental Data and Information Management System (EDAAMS) to help manage information and document compliance with the MS4 Permit.*

The Port is developing the Environmental Data and Information Management System (EDAAMS), which is a data management system to help the Port organize, track and report pertinent compliance information associated with the municipal stormwater permit. This innovative system is also integrated with a Geographic Information System (GIS) to spatially display information. The Port is currently working to complete and fully populate all EDAAMS components.

2.4.2 Evaluation of Land Use Planning for New Development and Redevelopment

Deficiency Noted:

- *The Port lacks a system to adequately track post-construction BMPs.*
Currently, the Port is not formally tracking post-construction BMPs (source and treatment controls) installed to fulfill SUSMP requirements. To ensure that these BMPs are maintained over the long term and perform as designed, and to verify that source controls continue to be implemented at new developments (e.g., that covered waste enclosures remain covered), a database of BMP locations, types, maintenance agreements, contact information, and other pertinent information should be developed and populated with project information now and in the future. The Port could build this information into the EDIAMS system described above. In addition, a procedure, schedule, and enforcement protocol should be developed to verify periodically that structural and source controls at new developments are properly maintained.
- *A temporary parking lot on the former Campbell Shipyard grounds did not implement post-construction controls.*
The evaluation team visited a paved parking lot on the former Campbell Shipyard grounds that served as parking for the Hilton Hotel and other businesses. Although this parking lot had been in place for approximately two years, the Port considered this to be a "temporary" project because of plans to further develop the site. Based on discussions with the Port, it was not clear exactly when the site had been paved and whether the SUSMP requirements were in effect at the time. Regardless of the Port's definition of "temporary" construction, this site has been used as a commercial

parking lot for two years. The model SUSMP does not provide exemptions for temporary projects. The Port should address post-construction stormwater runoff from this site and apply the SUSMP requirements if the Port's SUSMP was effective when the project was approved.

2.4.3 Evaluation of Construction Program

Potential Permit Violation:

- *A Port project to develop a commercial site next to the National City Marina lacked adequate erosion and sediment controls.*

The evaluation team accompanied Port staff on an inspection of a proposed commercial site next to the National City Marina. Although not on Port owned land, the construction activity is owned and conducted by the Port District. The site had been graded to a flat pad about six months previously, with silt fences along the perimeter of the site. Erosion controls were not employed on the site, and gulley erosion had formed at several points along an 8-10 foot slope on the eastern side of the project. The silt fence also required maintenance. A review of the SWPPP for this site revealed it did not specify any erosion control BMPs or include a construction schedule. These findings violate both permit provision E, which requires permittees to meet the BAT/BCT performance standard for construction activity owned by the permittee, and permit provision F.2, which requires permittees to implement BMPs for construction. The Port should ensure that construction projects develop adequate SWPPPs and implement all BMPs described in the SWPPPs.

Positive Attribute:

- *The Port has developed two construction SWPPP templates to assist contractors developing projects on Port tidelands property.*
The Port has developed a construction SWPPP template and guidance document for projects disturbing greater than one acre and a separate template for projects disturbing less than one acre. Each template was designed to meet the requirements of the State Board's Construction General Permit, the Regional Board's municipal stormwater permit, and the Port's JURMP. The SWPPP template provides checklists and a fill-in-the-blank format that can be adapted and used for any construction project. The SWPPP templates and guidance are available at: http://www.portofsandiego.org/sandiego_environment/susmp.asp

Deficiencies Noted:

- *The Port needs to ensure more consistent review of construction SWPPPs.*
The Port should ensure that construction SWPPPs reviewed address all required BMPs and components. Some of the SWPPPs reviewed during the audit lacked sufficient detail, such as a construction schedule or temporary erosion control BMPs, to ensure full compliance. The Port should consider either requiring the construction SWPPP templates to be used by all contractors, which will provide for consistency of review, or using the SWPPP templates during the review process to ensure all required elements are addressed.

- *Port inspectors need to ensure that stormwater inspections are documented.*
The MS4 permit requires all construction sites to be inspected at least twice during the wet season, with high priority sites inspected more frequently. Port inspectors document site inspections in daily logs and other records, however these inspectors need to ensure that the stormwater inspections are also conducted and documented. The documentation can consist of completion of a stormwater inspection report or similar form. The number of inspections and significant findings should also be included in the annual report.

2.4.4 Evaluation of Existing Development: Municipal Program

Positive Attribute:

- *The Port has developed standard operating procedures (SOPs) for three common municipal maintenance activities.*
In 2002, the Port's General Services Department developed standard operating procedures for power washing, pier cleaning, and power washing the cruise ship terminal and passenger loading bridge (SOPs #1-3). These SOPs describe the scope of each activity, the equipment to use, and the procedures to follow to protect water quality.

Deficiencies Noted:

- *The Port needs to develop a system to track municipal maintenance activities.*
Although the Port conducts storm drain inlet inspections and cleaning annually, it does not have a system in place to track and document that all inlets have been inspected and cleaned, if necessary. The Port is planning to add municipal maintenance information to the EDAIMS database to address this issue.
- *The Port should consider developing additional SOPs to address other municipal maintenance activities.*
As described above, the Port has developed three SOPs for power washing and pier cleaning. The Port should consider developing additional SOPs for other common maintenance activities such as storm drain inlet inspection and cleaning, street sweeping, or other activities. The SOPs can serve as guidance to municipal staff responsible for implementing the municipal component of the JURMP.

2.4.5 Evaluation of Existing Development: Industrial and Commercial Programs

Positive Attribute:

- *Port industrial and commercial inspectors conducted thorough stormwater inspections.*
The Port's industrial and commercial inspectors were knowledgeable about stormwater requirements, BMPs, and inspection procedures and conducted thorough stormwater inspections. The inspectors also have detailed inspection forms for industrial facilities and food and drinking establishments. Inspection results are entered in the EDAIMS database for tracking and reporting.

Deficiencies Noted:

- *Port inspectors should conduct periodic joint inspections with the Regional Board and neighboring cities to ensure consistent inspection approaches.*

The Port inspects 14 industrial facilities, 11 of which have been issued individual NPDES permits by the Regional Board. These facilities with individual NPDES permits are generally ship yards that are designed to contain and treat stormwater runoff before discharging it to the sanitary sewer. These facilities are generally not permitted to discharge stormwater to the MS4. The Port should conduct several inspections of these individually-permitted NPDES facilities with a Regional Board inspector to ensure that both inspectors are consistent in their approach.

The Port also inspects commercial facilities, including food and drinking establishments and marinas. Neighboring cities might also have stormwater inspection responsibilities at these facilities. Where practicable, the Port should join the local municipalities on several inspections to help in cross training staff and ensuring consistent inspection approaches.

- *The Port should expand restaurant inspections at hotels to also look more broadly at other stormwater issues.*

Port staff conducts thorough inspections at restaurants, but when these restaurants are located at the large hotels on Port property, the inspector does not typically conduct an assessment of other potential stormwater pollutant sources at the site. The Port should expand its inspections at hotels to include all areas around the hotel with the potential to impact stormwater quality and activities such as power washing, painting, and landscaping that can impact stormwater quality.

2.4.6 Evaluation of Residential Program and Public Education and Participation Program

Positive Attribute:

- *The Port conducts stormwater inspections at all marinas three times per year.*

The Port has developed a comprehensive Marina Inspection Program that consists of three dock-walking inspections (conducted in the spring, summer, and fall/winter) and a thorough annual inspection (conducted concurrently with the dock-walking inspection in the spring). Approximately 30 marinas are inspected, and marina inspectors complete inspection forms indicating whether potential pollutant sources such as gasoline/diesel, oil, cleaning solvents, or improper maintenance practices were observed at each slip. The Port also distributes educational brochures and materials to marina offices during the inspections.

2.4.7 Evaluation of Illicit Discharge Detection and Elimination Program

Adequate.