

US EPA ARCHIVE DOCUMENT

## Program Evaluation Report

### **Orange County Storm Water Program: Cities of Laguna Beach, Laguna Hills, Lake Forest, and Rancho Santa Margarita (Order No. R9-2002-0001, NPDES Permit No. CAS0108740)**

#### **Executive Summary**

Tetra Tech, Inc., with assistance from the California Regional Water Quality Control Board, San Diego Region (Regional Board), conducted a program evaluation of four of the 13 permittees implementing the Orange County Storm Water Program (the Program) in May 2005. The purpose of the program evaluation was to determine the permittees' compliance with their National Pollutant Discharge Elimination System (NPDES) permit (CAS0108740 and Board Order No. R9-2002-0001) and to evaluate the current implementation status of the permittees' Local Implementation Plans (LIPs) with respect to EPA's storm water regulations. The program evaluation included an in-field verification of program implementation. The four permittees evaluated were the cities of Laguna Beach, Laguna Hills, Lake Forest, and Rancho Santa Margarita. Although Orange County is subject to NPDES municipal storm water permits issued by both the San Diego and Santa Ana Regional Boards, this program evaluation examined only the permittees and activities within the purview of the San Diego Regional Board.

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

The following deficiencies and potential permit violations were identified:

- Each city should develop a plan to document the long-term effectiveness of its storm water program.
- Each city should work with the development community to improve the water quality management plan (WQMP) review process and the quality of WQMPs submitted by project applicants.
- The cities of Laguna Beach and Lake Forest do not require developers to submit adequate erosion and sediment control plans.
- The cities of Laguna Hills, Lake Forest and Rancho Santa Margarita should regularly evaluate the services provided by the County of Orange and commercial contractors.
- The City of Lake Forest failed to apply for storm water General Construction Permit coverage for the El Toro Road construction project.

- The City of Rancho Santa Margarita failed to require a project proponent to provide evidence of existing coverage under the State's General Construction Permit.

Several elements of the permittees' programs were particularly notable:

- The City of Laguna Beach has developed a WQMP template for project applicants and uses a detailed WQMP checklist during the review process.
- The City of Laguna Hills has developed a broad public outreach program that reaches a variety of target groups.
- The City of Lake Forest staff walked the City's entire drainage area during the development of the system inventory and map.
- The City of Rancho Santa Margarita has developed an HOA document (DF-1 HOA) enforceable by City ordinance.

**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 Further Evaluation..... 3

**2.0 Program Evaluation Results** ..... **3**

    2.1 Findings Common to All Four Permittees Evaluated ..... 4

    2.2 City of Laguna Beach ..... 8

    2.3 City of Laguna Hills..... 12

    2.4 City of Lake Forest ..... 16

    2.5 City of Rancho Santa Margarita ..... 25

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## **1.0 Introduction**

### **1.1 Program Evaluation Purpose**

Tetra Tech, Inc., with assistance from the California Regional Water Quality Control Board, San Diego Region (Regional Board), conducted a program evaluation of four of the 13 permittees implementing the Orange County Storm Water Program (the Program) in May 2005. The purpose of the program evaluation was to determine the permittees' compliance with the National Pollutant Discharge Elimination System (NPDES) permit (CAS0108740 and Board Order No. R9-2002-0001) and to evaluate the current implementation status of the permittees' Local Implementation Plans (LIPs) with respect to U.S. Environmental Protection Agency's (EPA) storm water regulations. Secondary goals included the following:

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

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

Although Orange County is subject to NPDES municipal storm water permits issued by both the San Diego and Santa Ana Regional Boards, this program evaluation examined only the permittees and activities within the purview of the San Diego Regional Board.

### **1.2 Permit History**

The NPDES storm water permit was issued on February 13, 2002, and is scheduled to expire on February 13, 2007. The current permit, the third issued to the permittees, requires each permittee to develop and implement a Jurisdictional Urban Runoff Management Plan (JURMP), which the permittees have renamed a Local Implementation Plan (LIP).

### **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. CAS0108740
- Laguna Beach 2003 LIP and 2003-04 Annual Report
- Laguna Hills 2003 LIP and 2003-04 Annual Report
- Lake Forest 2003 LIP and 2003-04 Annual Report
- Rancho Santa Margarita 2003 LIP and 2003-04 Annual Report
- Regional Board correspondence with each permittee

- Permittees' Web sites

On May 17–19, 2005, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

<b>Tuesday, May 17</b>	<b>Wednesday, May 18</b>	<b>Thursday, May 19</b>
<ul style="list-style-type: none"> <li>• Program evaluation kickoff meeting</li> <li>• Program Management; Program Effectiveness</li> <li>• New Development /Significant Redevelopment (office)</li> <li>• Construction (office and field)</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial and Commercial Components (office and field)</li> <li>• Illicit Discharge Component (office and field)</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal Activities (office and field)</li> <li>• Outbrief</li> </ul>

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

#### **1.4 Program Areas Evaluated**

The following program areas were evaluated:

- Program management, including the permittees' effectiveness assessment
- New Development/Redevelopment Component
- Construction Component
- Industrial/Commercial Component
- Illegal Discharges and Illicit Connections Component
- Municipal Activities Component

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

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

- Public Education and Residential Components
- Wet-weather monitoring program and monitoring program details (e.g., sample locations, types, frequency, parameters)
- Other NPDES permits issued to the permittees (e.g., industrial or construction NPDES storm water permits)
- Fiscal resources required or expended to implement the programs outlined in the LIPs
- 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 elements of the Program were being implemented as described. Instead, the team relied on its observations and on statements from the permittees' representatives 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 Further Evaluation

The evaluation team recommends the following additional assessments:

- An evaluation of the other permittees not evaluated
- An evaluation of the permittees' implementation of the local WQMPs, after additional plans have been approved
- A review of each permittee's industrial and commercial inspection and enforcement process, once a sufficient number of inspections have been performed
- A review of the commercial inspections to be performed by the Orange County Health Department on behalf of several of the permittees
- A review of the methods the permittees intend to use to measure the long-term effectiveness of the LIPs

## 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 permittee'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 deficient or innovative.

The evaluation team did not evaluate all components of each permittee's Program. Therefore, the permittees should not consider the list of program deficiencies contained in this report as constituting 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 described in text boxes in the following subsections.

## 2.1 Findings Common to All Four Permittees Evaluated

### 2.1.1 Evaluation of Program Management and Effectiveness

#### Deficiencies Noted:

- *Each city should develop a plan to document the long-term effectiveness of its storm water program.*

Provision F.8.a of the permit requires each permittee to develop a long-term strategy for assessing the effectiveness of its program. Each city describes past-year storm water activities in its annual report (also called “program effectiveness assessments”). For example, the City of Laguna Beach’s Annual Report contains “effectiveness and assessment summaries” that describe activities completed and provide a basic analysis of the data from the past reporting year. Each of the cities should expand on the information provided in its Annual Reports and develop a plan to document the long-term effectiveness of its storm water program. An overall program effectiveness plan should be developed with input from the County and other cities, but each city should also develop a plan that is specific to its unique challenges and water quality issues. The plan should set long-term goals and specify evaluation techniques that help the city demonstrate that it is making progress toward achieving these goals. Ultimately, this plan will help each city to improve implementation of the Program and help to document water quality improvements.

For additional information on program effectiveness, the cities should review the presentations from the November 14, 2003, meeting of the California Storm Water Quality Association. That meeting focused on municipal separate storm system (MS4) program effectiveness and how MS4s can document such effectiveness. The presentation materials are available at <http://www.casqa.org/meetings/presentations.htm>. An additional resource is *A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs*, developed by the San Diego Municipal Storm Water co-permittees. A copy of the framework is available at [http://www.projectcleanwater.org/pdf/copermittees/assessment\\_framework\\_final.pdf](http://www.projectcleanwater.org/pdf/copermittees/assessment_framework_final.pdf).

- *Each city should develop a city-specific enforcement guide.*  
The County storm water program, as part of the 2003 Drainage Area Management Plan (DAMP), has developed an *Enforcement Consistency Guide for Water Quality Ordinance Implementation*. Although this is a good overall guidance on inspections and enforcement, each of the cities should build on this to develop guidance specific to its own ordinances and legal authority. The guidance should not only list enforcement response options but also provide recommendations for when certain enforcement responses are applied. For example, a construction operator with past notices for the same violation would not receive another verbal warning but would receive a written notice of noncompliance or other enforcement action. For an example of a city-specific enforcement guidance, see the *Watershed Enforcement Response Plan* developed by the City of San Jose.

- Each city should develop a written training plan.*

Each of the cities currently provides training to staff or allows staff to attend training courses. The cities, however, have not developed a written training plan that is specific and targeted based on the type of training required for staff by department or by task. Each of the cities indicated that because of the size of the city, a formal training program was not needed; however, during the evaluation the need for specific training for different city staff and departments was noted. Each city should develop a written training plan to identify the training needs within the city and the type of curriculum that should be developed. The training program should include both focused and general training. The cities currently use the County of Orange to provide most of their training. The cities may incorporate use of the County's training program into their city-specific training program strategies.
- The cities are not designating a set of BMPs for high, medium, and low threat to water quality for construction, municipal, industrial, commercial, and residential sources.*

For each of the LIP components, the MS4 permit describes a standard process of identifying the sources, prioritizing the sources (as high, medium, or low) on the basis of threat to water quality, and designating minimum BMPs for high, medium, and low threats to water quality. The cities are not consistently designating BMPs based on the prioritized high, medium, or low threat to water quality. These BMP requirements are specified in parts F.2.f (construction), F.3.a.(4) (municipal), F.3.b.(4) (industrial), F.c.3.(3) (commercial), and F.3.d.(3) (residential). Each city should identify minimum BMPs for high-, medium-, and low-priority threats for each source. The cities can also identify minimum BMPs that apply to all priorities for a source.

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

#### Deficiencies Noted:

- Each city should work with the development community to improve the water quality management plan (WQMP) review process and the quality of WQMPs submitted by project applicants.*

New developments provide a unique opportunity to design projects to minimize a development's impact on water quality. The cities should develop a review process that considers the effectiveness of BMPs in controlling the pollutants of concern. This should include a hierarchy for the selection of BMPs based the effectiveness of a particular BMP in controlling specific pollutants. Developers would then be required to provide justification for selecting BMPs that are not as effective as other BMPs. For example, the cities generally allow catch basin inlet filters (classified as a proprietary control measure treatment control BMP) as the primary BMP selected for most new development sites. The California *Storm Water Quality Association New Development and Redevelopment BMP Handbook* provides a fact sheet on the use and applicability of drain inserts. According to the fact sheet the performance of drain inserts is likely significantly less than that of treatment systems located at the end of the drainage system, such as ponds and vaults, and drain inserts are usually not suitable for large areas or areas with trash or leaves that can plug the insert. The fact sheet further indicates that drain inserts are recommended for retrofit situations and as

pretreatment where other treatment BMPs are used and should not be stand-alone BMPs. Based on this information, the cities generally should not allow drain inlet filters as stand-alone new development BMPs.

Also, Part F.1.b.(2)(h) of the permit requires each city to develop restrictions that apply to treatment BMPs that are designed to function as infiltration devices to protect groundwater quality. Because infiltration BMPs are city-approved BMPs, the cities must develop restrictions to ensure that the use of such BMPs does not cause or contribute to an exceedance of groundwater quality objectives.

As an example, the City of Sacramento has implemented a technical guidance manual that identifies specific new development BMPs for commercial and industrial development (available at [http://www.sacstormwater.org/const/manuals/hc-on\\_site.html](http://www.sacstormwater.org/const/manuals/hc-on_site.html)). The manual provides fact sheets containing site, design, construction, operation, and maintenance standards and specifications for these BMPs. The manual allows a developer to propose equivalent, alternative BMPs in lieu of the approved BMPs if adequate justification is provided. As an incentive for a developer to select city-approved BMPs, the manual indicates that plans submitted with the alternative BMPs will require additional time for review and approval, which could result in delays in final approval of the plans. The County of Ventura also provides a technical guidance manual, which is available at <http://www.vcstormwater.org/publications.htm>.

In addition, the cities should work with project applicants to improve the quality of WQMPs, especially with better site design BMPs and more effective treatment control BMPs. For example, applicants should be encouraged to minimize impervious surfaces and to direct runoff to adjacent landscaping whenever practical. Also, project applicants should select the most effective treatment control BMP for the pollutant of concern. Drain inserts, generally the least effective of the treatment control BMPs, should be used only when other options are documented as not being feasible.

- *Each city should ensure that post-construction BMPs are adequately maintained.* The cities are not formally tracking post-construction BMPs (source and treatment controls) installed to fulfill the WQMP 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), each city should develop a system to track these post-construction BMPs.

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

#### Deficiency Noted:

- *Each city should analyze dry weather screening data.* The County conducts dry weather reconnaissance for all four cities. Procedures are in place for the County to notify a city when a collected field sample is significantly above mean conditions; however, most data collected by the County is not delivered to the cities in a timely manner. The cities should also use these dry weather

screening data to provide additional analysis of potential pollutants and sources. For example, the cities could analyze the data to determine which pollutants most commonly exceed the threshold and which outfalls receive the most flow during dry weather. The cities should consider these data when assessing whether changes to their current activities and BMPs are warranted.

## 2.2 City of Laguna Beach

### 2.2.1 Evaluation of Program Management and Effectiveness

#### Positive Attribute:

- *The City created a Water Quality Department to specifically address storm water and sanitary sewer activities.*

To consolidate staff and emphasize the importance of these activities, the City created a Water Quality Department with two departments – Wastewater and Water Quality – to focus on maintenance of the sewer lines, pump stations, and sewer interceptor and compliance with the City’s NPDES storm water permit. With 15 employees, 2 of whom are dedicated full-time to water quality, the City is able to better plan and manage activities to protect water quality.

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

#### Positive Attribute:

- *The City has developed a WQMP template for project applicants and uses a detailed WQMP checklist during the review process.*

The City modified the County’s WQMP template to create a template used in preparing WQMPs for priority development projects. The template is a simplified document that follows the City’s comprehensive WQMP preparation document but includes tables that the project applicant must complete. The template provides a standard format for project applicants to follow and a consistent form that facilitates the City’s review.

The City has also developed a WQMP checklist to ensure that all WQMP requirements are satisfied and to document the review process. The City’s consultant completes the checklist during each WQMP review and notes any concerns or missing items. A copy of the completed checklist is also provided to the project applicant to help in correcting any problems.

### 2.2.3 Evaluation of Construction Program

#### Potential Permit Violation:

- *The City does not require developers to submit adequate erosion and sediment control plans.*

Part F.2.c of the City’s permit lists the minimum requirements that must be addressed by the City in its construction management program. Parts F.2.c(1)(c) through F.2.c(1)(g) specify that (1) erosion prevention is the most important measure, (2) sediment controls are to supplement erosion control and are never to be used as the single or primary method, (3) sites are to minimize areas that are cleared and graded, and (4) sites are to minimize the exposure time of disturbed areas. The City generally approves erosion and sediment control plans with minimal BMPs. Usually, only gravel bags are indicated along the perimeter of the project and copies of standard

erosion control and water quality notes are attached. These plans do not provide enough detail for project applicants to adequately plan for the cost of storm water BMPs, and the lack of detail increases the work of the City's inspector who uses the plans during inspections to review required BMPs.

The City should require more specific BMPs on erosion and sediment control plans, including erosion control for steep slopes, the identification of pollution prevention/materials management BMPs (e.g., concrete washouts, trash management), and a grading schedule (or phased grading requirements). Also, the development of an erosion and sediment control plan review checklist listing common BMPs and requirements would help the City's plan review staff to ensure that critical BMPs are included on plans.

Positive Attribute:

- *The City's construction inspector was knowledgeable and conducted thorough inspections.*  
Despite erosion and sediment control plans that lacked detailed BMPs, the City's construction inspector conducted thorough inspections at the construction sites visited. The inspector was very knowledgeable in erosion and sediment control BMPs and identified missing BMPs at sites.

Deficiency Noted:

- *The City should develop a BMP fact sheet for residential construction projects on steep slopes.*  
For guidance on the selection of construction site BMPs, the City provides project applicants with copies of the County's *Construction Runoff Guidance Manual* or refers applicants to the CASQA *Construction BMP Manual*. The City should develop more specific outreach on the types of BMPs expected at the projects most common in the City – residential construction projects on steep slopes.

An example of a specific BMP brochure is available from the City of Coronado at <http://www.coronado.ca.us/ContentPage.asp?ContentID=94>. The City of Coronado's construction industry pollution prevention guide includes contact information for the City and information on right-of-way permitting, BMPs, and the City's inspection and enforcement program. The guide also illustrates the types of BMPs that should be used at all construction sites by providing a graphic representation of a common construction project in the City showing the types of BMPs the City expects to be implemented.

#### **2.2.4 Evaluation of Existing Development: Industrial and Commercial Programs**

Positive Attribute:

- *The City has completed inspections at its industrial facilities.*  
The City has 38 industrial facilities (none of which are ranked high-priority). The City completed inspections of these facilities in 2003. In addition, the City's inspector

conducted a thorough inspection of a commercial auto repair facility. The City has also begun conducting inspections at most of its commercial facilities.

Deficiency Noted:

- *The City should consider conducting full industrial/commercial inspections when investigating illicit discharges at businesses.*

Currently, when the City conducts illicit discharge investigations that involve a business, it works with the business to eliminate the discharge but does not necessarily investigate other potential storm water issues at the site. The City inspector should conduct a full storm water inspection at a business where an illicit discharge has occurred. Although the business owner is focused on water quality, the inspector has a good opportunity to identify any other potential water quality issues at the site. These inspections could also count toward the City's commitment to inspect industrial and commercial facilities over the permit term.

## 2.2.5 Evaluation of Illicit Discharge Detection and Elimination Program

Positive Attribute:

- *The City is very proactive in addressing illicit discharges.*

The City inspector was very proactive in identifying and addressing illicit discharges discovered while driving through the City. These discharges included discharges from construction sites, landscaping contractors, and residents. This field presence and the education/enforcement provided helps to remind City residents and contractors of the requirements in the City's Water Quality Control ordinance and the importance of protecting water quality.

Deficiency Noted:

- *The City should include in its tracking database information on how illicit discharge complaints are resolved.*

The City has developed a database to track illicit discharge complaints, but the database does not include specific information on how and when each complaint is resolved. The City should add this information to the database to demonstrate to the Regional Board and others that each complaint received has been investigated and appropriately resolved.

## 2.2.6 Evaluation of Existing Development: Municipal Program

Positive Attributes:

- *The City has installed more than a dozen diversion structures to capture urban runoff.*

The City has installed more than a dozen diversion systems (CDS units) to capture urban runoff and divert the flow to the sewer system for treatment at the wastewater treatment facility. During storm events, diversion to the sewer is stopped. The storm flow passes through the separator unit and is filtered up to the design capacity of the

unit and discharged to the ocean. Storm flow above the design capacity of the separator unit is bypassed directly to the ocean.

- *The City has funded a study to assess the effectiveness of oil/grease removal socks for CDS units.*

The City recently completed a 6-month study to determine the effectiveness of oil booms in removing oil/grease that enters the City's urban runoff diversion continuous deflection separator units. The oil booms were installed at five locations and removed and replaced bimonthly. The used booms were weighed and tested to determine the amount of oil removed. The results of the study will be included in the City's next Annual Report.

- *The City designed and constructed a custom mobile trailer for concrete wash water.* After identifying a need, City staff designed and constructed a custom mobile trailer that contains concrete wash water collected at City projects. The mobile trailer allows the City to clean concrete equipment in the field and dispose of the wash water back at the corporation yard.

Deficiencies Noted:

- *The City should develop documented procedures or BMP fact sheets for common maintenance activities that can impact storm water quality.*

The City conducts maintenance activities such as pressure washing, saw cutting, and concrete work, which could affect water quality. Although staff employ BMPs when conducting these activities, the BMPs are not documented in writing. The City should develop simple "cut sheets" that describe the BMPs and the procedures staff should follow when conducting common activities that could affect water quality.

## 2.3 City of Laguna Hills

### 2.3.1 Evaluation of Program Management and Effectiveness

#### Positive Attribute:

- *The City has developed a broad public outreach program that reaches a variety of target groups.*

The City, in conjunction with the County of Orange, implements a storm water public education program. The program has developed a broad range of materials, including general storm water brochures in both English and Spanish and educational posters for priority commercial facilities. The City has also assisted with the development of the *Equestrian Related Water Quality Best Management Practices* handbook targeting the equestrian community. Most notably, the City has developed storm water banners that hang from the light poles that line main streets of the City.

#### Deficiencies Noted:

- *The City should regularly evaluate the services provided by the County of Orange and commercial contractors.*

Sections F.3.a.(5)(b) and F.3.a.(5)(c)i.-v. of the permit require the permittee to implement a schedule of specific maintenance activities for the MS4. The City of Laguna Hills contracts out a majority of its MS4 maintenance services to the County of Orange. The City's agreement with the County requires monthly status reports to summarize work conducted; however, none were available for review.

Sections F.1.b and F.2.g. of the permit require the permittee to modify the development project approval process and conduct construction inspections, respectively. The City uses commercial contractors to assist with construction inspections and plan review. The City acknowledged the lack of training associated with the contracted construction inspectors and contractors that conduct plan review.

The evaluation team saw few signs of oversight and assessment of the contractors conducting work associated with municipal services, new development plan review, and construction inspections. Although contracting storm water services is acceptable, compliance with the permit is ultimately the City's responsibility. The City should implement a thorough contractor training program to address all elements of the permit applicable to the contractor. In addition, the City should regularly monitor and evaluate the performance of its contractors to ensure permit compliance. This regular evaluation would also assist with completion of the effectiveness assessment and guarantee effective use of resources.

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

Deficiencies Noted:

- *The City lacks formalized procedures for the internal WQMP review and approval process.*

Part F.1.b of the permit requires the permittee to modify its development project approval processes to ensure that pollutants and runoff from development will not affect water quality. In addition, part F.1.b(2)(f) requires the development of an implementation process for the local WQMP. The evaluation team found that the City lacked flowcharts, guidance manuals, Environmentally Sensitive Area (ESA) maps, and decision support systems for staff to follow. The City acknowledged the use of its LIP and a checklist for review of WQMPs; however, a completed checklist could not be produced from any file. Laguna Hills is a largely built-out city with few WQMP-applicable projects; however, the City still needs to develop clear, specific guidance for plan review staff explaining the WQMP review process. The City should also conduct regular training for plan review staff which details WQMP requirements. Additional training that addresses ESAs is also recommended for plan review staff.

To ensure consistent implementation and continued organization, the City should develop formalized procedures, preferably in a stand-alone document, to address the WQMP review and approval process. The document would be oriented toward internal staff and could include flowcharts and BMP selection guides. Formalized procedures would delineate roles and responsibilities for City staff during each phase of the plan review and approval process. Locally, the City could review the process being deployed by the City of Mission Viejo.

- *Plan reviews and field inspections focus on sediment control, not erosion control.* Residential construction within the City of Laguna Hills is occurring primarily on hillsides. Upon review of the plan check and construction inspection procedures, the evaluation team identified a lack of erosion control BMPs. The emphasis of the plan review and construction site inspections appears to be sediment control rather than erosion control. Part F.2.c.(1)(c) requires the permittee to ensure that erosion prevention is emphasized and is used as the most important measure for keeping sediment on-site during construction. The City needs to revise its minimum BMP requirements to emphasize the use of erosion controls. In addition, the City needs to improve its plan check procedures and construction inspection activities to ensure that proper erosion controls are installed and maintained on all applicable construction sites.

It is also recommended that the City create a hillside development BMP fact sheet/guidance for construction contractors. This guidance should be distributed to construction contractors before the grading permit is issued to ensure that erosion prevention is being adequately emphasized. See the finding in section 2.2.3 for additional recommendations and an example BMP fact sheet.

### 2.3.3 Evaluation of Construction Program

#### Deficiency Noted:

- City contractors conducting inspections of construction sites should use a standardized checklist that specifically addresses storm water.*

Part F.2.g.(1) of the permit requires each permittee to “conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.) and this Order.” The City currently uses contractors to inspect capital improvement projects and, when needed, private construction sites. Contractors conducting the construction site inspections use a standardized form to evaluate the site, but, the form is general and does not prompt the inspector to specifically evaluate the construction sites for compliance with local permits, ordinances, or the MS4 permit. A standardized checklist that reflects these regulatory documents, as well as standard conditions, BMP implementation plans, and site erosion control measures found at construction sites, should be developed and implemented. An associated training component should also be developed for contractors using the checklist.
- The City should have a mechanism for ensuring applicable project applicants are covered under the Statewide General Construction Permit.*

Part F.2.c(1)(j) of the MS4 permit requires the City to ensure project proponents subject to the statewide General Construction Permit provide evidence of existing coverage. The City has adopted construction and grading project requirements that require construction and grading project proponents to provide evidence of coverage under the General Construction Permit and Section A-8.5 of the City’s LIP mandates that the City require proof of General Construction Permit coverage before issuing a grading or building permit. However, the evaluation team did not identify any formal mechanism for ensuring applicable project applicants were complying with the state and local requirements. The City should incorporate into their WQMP checklist and/or Project Application Form a means of assuring project applicants are adequately addressing City and State requirements.

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

#### Positive Attribute:

- The City conducts training targeted at commercial sites and sources that are high-priority threats to water quality.*

The City conducts training workshops for commercial sites/sources listed in part F.3.c.(2) of the permit as high priority threats to water quality. The City attempts to hold the workshops once every 2 months. Posters, flyers, and additional resources specific to the commercial activity are provided for all attendees.

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

#### Deficiency Noted:

- *The City should implement formal tracking procedures upon detection of illicit discharges, connections, and spills.*

Part F.5., illicit discharge detection and elimination, establishes requirements for the permittee to “actively seek and eliminate illicit discharges and connections into its MS4.” Currently, the City’s illicit discharge detection and elimination program lacks a well-constructed tracking mechanism to identify how each illicit discharge investigation is recorded. It is recommended that the City supplement its formal tracking procedures to ensure the timely elimination of the illicit discharge, connection, or spill. Examples of fields in a database that would assist with this effort are time and date of the event; identification of illicit discharge, connection, or spill; location of the event; contact information associated with the event; any enforcement action taken; threat to the MS4 and subsequent waterbodies; description of the final action taken; and date of the final action taken.

Improved tracking procedures not only would assist with the elimination of illicit discharges, connections, and spills, but also would aid in proactively identifying locations subject to frequent events requiring follow-up investigations. Regarding follow-up investigations, criteria should be developed to assist field staff with the procedures of the investigation.

### 2.3.6 Evaluation of Existing Development: Municipal Program

#### Positive Attribute:

- *The City’s Parks Department has developed an Integrated Pest Management Program.*

The City has developed an Integrated Pest Management Program (IPMP) in coordination with the contractor performing all municipal landscaping activities. The IPMP is actively seeking alternatives to the use of fertilizers, such as the use of white flies, and it tracks the reduction in fertilizers and pesticides used for landscaping. The City’s contractor uses slow-release fertilizer; however, the contractor maintains a schedule to limit the volume used and the City ensures that application never occurs prior to a rain event. Parks Department managers also ensure that applicators of the fertilizer are certified and trained, as well as informed of County educational seminars.

## 2.4 City of Lake Forest

### 2.4.1 Evaluation of Program Management and Effectiveness

#### Positive Attributes:

- Storm water program management conducts midyear audits of program implementation to ensure that the program is meeting the minimum requirements specified in the permit and LIP.*

The City storm water program manager collects information on program implementation activities being conducted by various City staff to evaluate the status of program implementation and to ensure that corrective actions are taken to ensure that program tasks are completed within the reporting year for the program. This approach will help the City correct identified deficiencies and ensure that workplan commitments are met.
- The status and progress of the storm water program are presented to the City Council quarterly.*

An update on the City's storm water program is a standing quarterly agenda item for City Council meetings. This ensures that the City's leaders and top managers are fully informed and aware of the activities of the storm water program.

#### Deficiencies Noted:

- The City's storm water program management lacks adequate resources and authority to conduct adequate oversight of the City's program implementation and progress.*

In accordance with section A.2.2 of the City's LIP, the City has an assigned LIP manager to coordinate and manage the development, implementation, and administration of the City's LIP and related DAMP programs. The manager's role is important and critical to the overall success of the City's program; however, it was apparent during the evaluation that the manager is overtasked. For example, the manager conducts many implementation tasks that are time intensive, such as industrial inspections and updates of the business inventory. The lack of adequate resources for program implementation results in the manager's being unable to conduct the general oversight of program activities that is needed for the City's program. The City should consider increasing the overall resources allocated to implementing its program to ensure that the LIP manager's time is allocated appropriately to coordinating and managing the implementation and administration of the LIP and related DAMP programs.
- The City does not have a formal storm water program organization chart that emphasizes the role and authority of the storm water program manager in the implementation of the City's storm water program.*

The City implements the various components of its storm water program through the various City departments. None of these departments or staff report directly to the City's LIP manager for their daily tasks or activities. This management structure adds complexity to the overall management of the program and might present a

higher risk for noncompliance if the City does not address it adequately. The use of various departments and staff persons to implement the program could be effective provided the role and authority of the person assigned as the overall LIP manager is clearly defined by the City. For example, the City could assign specific persons, such as the designated storm water inspectors, to report directly to the storm water program manager when it is appropriate.

- *The current Annual Report format does not allow the City to report its activities in sufficient detail to demonstrate full compliance with the City's permit and LIP.*

The City's Annual Report does not accurately report all of the City compliance and enforcement activities, including follow-up activities conducted in response to complaints and incidents of noncompliance. This deficiency has resulted in the City's underreporting of some of its tasks. For example, in the Illegal Discharge/Illicit Connection (ID/IC) Program, City staff investigate all complaints received but do not report a complaint if staff cannot confirm a spill or discharge during their investigation. The City also does not report all of its follow-up actions. For example, in the Existing Development - Industrial Program, the City reports the number of inspections conducted, the number of enforcement actions taken, and the number of facilities with or without BMPs, but the report does not specify what the City inspectors did to bring facilities into compliance or explain how issues or incidents of noncompliance were resolved. The City should revise its annual reporting practices to include this additional information for all program areas that involve staff follow-up and response.

- *The City does not provide adequate oversight and does not audit contractors and County staff that perform work and activities for the City to ensure compliance with its permit and LIP.*

The City relies on the County, special districts, and contractors to implement various elements of its permits, but the LIP manager does not adequately audit these activities to ensure that the contractors or other parties are implementing the program in accordance with the City's permit or LIP. The City should develop a procedure for conducting periodic audits of its contractors. The City should also develop and implement a reporting procedure to ensure that the contractors and other parties submit periodic reports of activities and certify that they are in compliance with the City's permit and LIP.

- *The City does not have a centralized database or tracking system for the management, monitoring, and reporting of its program.*

Throughout Order R9-2002-2001, the City is required to collect and report activities conducted to implement the requirements of the permit and the City's LIP in its Annual Report and to evaluate and assess the effectiveness of the City's program. The City currently implements various rudimentary electronic and manual tracking practices to record permit-related activities. Each department is responsible for collecting and tracking data and providing data to the City's LIP manager, who then compiles the data for reporting to the Regional Board. The City's current methods do not provide the City the capabilities to (1) readily evaluate the status of BMP implementation for the entire program, or (2) properly evaluate and measure the

effectiveness of its program through trend analysis and other measurement and evaluation tools that might be available if a more centralized database system were used. The City is implementing a geographic information system (GIS) that will be initially deployed for the City's construction inspection program. The City plans to expand the GIS to include other City programs. The City should develop a more centralized tracking system to track and monitor its program, and it should proceed with expanding its GIS capabilities.

- *The City's enforcement policy could be strengthened to allow inspectors the capability to issue citations.*

The City currently implements a progressive enforcement policy that assumes a certain level of burden of proof for City inspectors to demonstrate noncompliance before additional enforcement may be imposed. Although the enforcement policy allows the City to move immediately to stronger enforcement methods for egregious or unusual circumstances, in most cases, City inspectors are to provide a written Notice of Noncompliance specifying the items to be corrected and providing a time frame within which the alleged violator is to correct the situation. This process can discourage inspectors from adequately addressing violations that are serious enough to need immediate attention yet are not serious enough to meet the definition of "egregious" or "unusual." The City should consider revising its enforcement policy to include the issuance of citations by the City inspectors. MS4s that have implemented this method of enforcement have found it to be very effective in achieving immediate compliance.

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

- *The City is designing an approach to addressing water quality issues in areas within the City planned for future development.*

The City has approximately 900 acres of open land on which it expects major development to occur during the next few years. The City is evaluating planning methods to ensure that it adequately addresses water quality up-front. The City is considering developing a master tentative map for the large planned development that will address major storm water quality issues for the entire development area. The water quality issues that involve the individual development projects within the master planned development will be addressed through specific plans. Because the development is expected to occur beyond the term of the City's current permit, the City was advised to ensure that requirements and conditions set in any such master document/plan ensure that future changes to the City's permit can be easily incorporated into the future development activities in the master plan.

#### Deficiencies Noted:

- *The City has not established a plan to ensure that urban runoff in common-interest areas and HOAs meets the objectives of the City's permit.*  
Part F.6.a of the permit requires the permittee to "develop and implement a plan for ensuring that urban runoff from private roads, drainage facilities, and other storm

water conveyance systems in common interest areas and in areas managed by HOAs meets the objectives of the permit.” During the evaluation, City representatives indicated that they plan to develop a program to monitor and assess HOAs for improved BMP implementation.

- The City’s Planning Department’s CEQA thresholds for water quality do not adequately address the storm water quality program objectives.*

During the evaluation, City planning staff indicated that the City had developed very detailed thresholds for CEQA that define projects that would “normally have a significant impact” and identify potential mitigation measures. Staff indicated that the water quality thresholds address the requirements of the storm water program, in particular the new development requirements of the City’s permit. The City did not consult with the Regional Board or ask the Regional Board to review or provide comment regarding the proposed thresholds prior to adopting and implementing them. Review of the thresholds subsequent to the evaluation has found that the thresholds do not adequately address Parts F.1.a and F.1.c of the City’s permit, which describe issues to be addressed through general plans and the environmental review process. For example, Part F.1.a.(3) states that important water quality benefits provided by riparian corridors, wetlands, and buffer zones should be preserved and, where possible, created or preserved; however the significant thresholds do not include projects where the reduction or taking of riparian corridors, wetlands, and/or buffer zones would occur. In addition, the potential mitigation measures do not adequately address Part F.1.b of the City’s permit which describes the WQMP requirements.
- The City has not developed written procedures for implementing the WQMP requirements through its development processes and has not revised existing checklists to include appropriate references to the storm water requirements.*

Part F.1.b.(2)(f) of the City’s permit requires the City to develop an implementation process to ensure that the WQMP requirements are addressed. The purpose is to identify at what point in the planning process development projects will be required to meet the WQMP requirements. The City relies on the Engineering/Public Works Department to ensure that new development and construction requirements are adequately addressed in new development projects. Although use of the Engineering Department is appropriate, the City’s current project review process does not address new development requirements early enough in the planning process and has resulted in developers limiting the types of BMPs they are willing to implement due to site design constraints. The City must develop an implementation process to ensure that new development requirements are addressed very early in the planning process.

In addition to establishing a formalized process for review, additional tools are necessary to ensure that new development and construction programs are implemented effectively. The City has not developed pre-applicant guidance documents or checklists that address new development requirements. City officials indicated that such documentation is not necessary because the engineers and developers that develop and construct projects within the City are well versed in the storm water quality requirements of the City. However, the field visit portion of the

evaluation found poor compliance with the new development and construction requirements. New development BMPs were limited to catch basin inlet filters. New sites were developed with minimal landscaping, and all sites were paved with runoff directly connected to the storm drain system. Early site development planning and design could have addressed implementing additional BMPs and reduced the amount of paved area directly connected to the storm drain. Review of the City's existing application and engineering plan checklists found that the checklists do not adequately address water quality issues. Many lists have identified minimum items that must be shown on plans, but the lists do not include permanent BMPs. Currently, the City requires BMP that descriptions and details be addressed through WQMP plans. However, to ensure that BMPs are adequately addressed during the design and construction of projects, the BMPs should be adequately identified on construction plans along with the appropriate details and notes needed. The City should create or revise current checklists to adequately address new development and construction requirements.

### 2.4.3 Evaluation of Construction Program

#### Potential Permit Violations:

- *The City does not require developers to submit adequate erosion and sediment control plans.*

Part F.2.c of the City's permit lists the minimum requirements that must be addressed by the City in its construction management program. Parts F.2.c(1)(c) through F.2.c(1)(g) specify that (1) erosion prevention is the most important measure, (2) sediment controls are to supplement erosion control and are never to be used as the single or primary method, (3) sites are to minimize areas that are cleared and graded, and (4) sites are to minimize the exposure time of disturbed areas. The City does not require an adequate combination of erosion and sediment control BMPs to be implemented on construction sites. The erosion and sediment control plans reviewed during the evaluation did not include sufficient notes or details to ensure that BMPs would be installed, maintained, and monitored properly. The City's current program implements predominantly perimeter control and some other sediment control measures, but it does not require any erosion control measures to be implemented. This was confirmed during the field visit portion of the evaluation. During the office portion of this evaluation, a completed erosion and sediment control plan was reviewed, and the plan was found to include notes that call out many BMPs. Only perimeter control BMPs, however, were shown on the plan. The plans submitted to the City should include more specific details regarding the location, installation, construction, operation, and maintenance requirements of construction site BMPs. The City can refer to the *Erosion and Sediment Control Field Manual* developed for the San Francisco Regional Water Quality Control Board, which is available at <http://www.waterboards.ca.gov/stormwtr/training.html>. An additional reference is a manual developed by the Minnesota Pollution Control Agency on how to conduct inspections entitled *Storm Water Construction Inspection Guide*; it is available at <http://www.pca.state.mn.us/publications/wq-strm2-10.pdf>.

- *The City failed to apply for storm water General Construction Permit coverage for the El Toro Road construction project.*

Part F.2.c requires the City to ensure that project proponents provide evidence of coverage under the State's General Construction Permit. The City failed to submit an NOI to the State for its own construction project on El Toro Road. The City also lacked documentation that the site had been adequately inspected to ensure that minimum BMPs were implemented.

Deficiencies Noted:

- *The City's construction site inspection staff is not adequately trained.*  
During the office and field portions of the evaluation, the evaluation team noted that the construction inspectors had a basic knowledge and awareness of the storm water program and its requirements; however, additional office and on-the-job training for construction inspectors is recommended. The inspectors lacked working knowledge of applicable and appropriate BMPs that should be implemented during the different phases of construction. Parts F.2.j.(1)(a) through F.2.j.(1)(e) of the City's permit establish lists of the minimum items construction site inspectors should understand to adequately inspect construction sites for compliance with the City's permit. Part F.2.j.(1)(c) requires that the inspectors understand how erosion is prevented. Based on field observations, the City inspectors need significant training and education in this area.

**2.4.4 Evaluation of Existing Development: Industrial and Commercial Programs**

Positive Attribute:

- *The City has dedicated storm water inspectors.*  
The City has two dedicated storm water inspectors that conduct industrial and commercial site visits. The inspectors are trained and knowledgeable in the City's code and permit requirements for the industrial and commercial BMP program.

Deficiencies Noted:

- *The City has difficulty maintaining an updated inventory because it does not issue business licenses.*  
Parts F.3.b.(2) and F.3.c.(2) require the City to create and annually maintain an inventory of all industrial and high-priority commercial sites in the City. The City does not issue business licenses, and the primary tool it uses to maintain its business inventory is for the City LIP Manager to drive through the City to visually identify new businesses. This process is very resource-intensive and makes it difficult for the City to maintain and sustain its industrial and commercial program. It also results in poor utilization of the LIP Manager's time, which could be used more effectively to manage, coordinate, and provide oversight to all storm water program areas and activities for the City. The City should investigate other tools and measures that could be used to better track when businesses start and stop, and to identify the types of business or activities. Such tools might include requiring all businesses to register with the City or working with other agencies or companies that might have access to

business information that could be made available electronically for use by the City, such as the Irvine Water District (IWD), utility companies, fire departments or the State of California.

- *The City does not have a schedule for conducting industrial inspections and has not inspected sites during the wet season.*  
 The City has only 11 industrial facilities; and all have been identified as high-priority industries. They are all inspected once a year as required by the City's permit. City representatives indicated that they do not have a set approach for conducting industrial inspections and have not conducted any inspections during the wet season. Visually observing the runoff and conditions at an industrial site during a wet weather event is a useful tool in evaluating the overall effectiveness of an industrial site's BMP program. It is also one tool the City could use to evaluate the effectiveness of its MS4 industrial program. The City should develop an industrial inspection program that ensures that all of its industrial sites will be inspected at least once during the wet season over the term of the City's permit.
- *The City does not have a strategy for conducting commercial site inspections.*  
 Part F.3.c.(4) of the City's permit requires the City to conduct inspections of high priority commercial sites and sources as needed. According to the City's 2004 Annual Report, there were 392 high-priority commercial facilities in the City. Section A-9.2.6 of the City's LIP requires the City to inspect high-priority commercial sites at least once during the permit cycle, but the City has not developed a strategy or process to determine how or when it will conduct site inspections of these facilities. Currently, the City determines which facilities to inspect by responding to complaints or to drive-by observations made by City personnel. Instead of implementing a random commercial inspection program, the City should develop a strategy for conducting inspections that will ensure that all sites are inspected during the term of the permit. One such approach is to partition the City into sectors and then schedule drive-by and site inspections of commercial sites within a particular sector.
- *The City's industrial minimum BMP fact sheets do not address BMP operation and maintenance (O&M) requirements.*  
 In the City's 2004 Annual Report, the City indicated that some industrial facilities had only "partially implemented BMPs" but did not count these incidents as noncompliance. During the evaluation, City representatives indicated that the City uses the term "partially implemented BMPs" when BMPs have been implemented but not maintained. For BMPs to be fully effective and to ensure compliance with the City's permit, BMPs must be implemented and maintained. The City should consider the lack of adequate O&M for BMPs an incident of noncompliance when reporting such incidents to the Regional Board. In addition, the City should consider revising the fact sheets it developed for the minimum BMPs that must be implemented by industrial and commercial sites to include minimum O&M tasks for each BMP.

## 2.4.5 Evaluation of Illicit Discharge Detection and Elimination Program

### Positive Attributes:

- *City staff walked the City's entire drainage area during the development of the system inventory and map.*

The City was incorporated in 1991, and previous records of the storm sewer system were not accurate or were not available. To complete an inventory, City representatives walked the entire drainage area to adequately survey the system. This approach provided the City the opportunity to identify potential illicit connections and illegal discharges and to identify potential areas of concern for illegal discharges, dumping, or spills.

### Deficiencies Noted:

- *The City does not adequately document its illicit discharge investigation activities.* Appendix A-10.2.5.1 of the City's LIP indicates that the City will use standardized forms to document all illicit discharge investigation activities. The City has developed a form that is to be used by city staff investigating discharges; however, during the evaluation City staff indicated that the form is rarely used. The City should implement the use of its source identification form in accordance with the LIP.
- *The City has not entered into a written agreement with the Irvine Water District (IWD) to implement elements of its program and has not provided training to the IWD or adequate oversight of IWD activities.*  
The City relies on the IWD to implement a portion of its IC/ID program in responding to sanitary sewer overflows (SSOs), but the City does not have a written agreement with the IWD. According to a City representative, the IWD may or may not report SSOs to the City. Although the IWD is conducting this activity for the City, the City is ultimately responsible for compliance with its permit and LIP. The City must develop and implement a program to address the activities of the IWD within the city limits. At a minimum, the City should enter into a written agreement with the IWD and provide training as soon as reasonably possible to IWD staff and managers. The City should seek the assistance of the Regional Board if the IWD does not enter into a written agreement with the City.
- *The City has not provided a map of its storm drain system to the County Fire Department or to the IWD.*  
The City relies on the County Fire Department to respond to hazmat spills and relies on the IWD to respond to SSOs, but the City has not supplied these entities with a map of their storm drain system. In accordance with Section A-10.1.3 of the City's LIP, the City has developed an MS4 map and other information necessary to allow staff to quickly and efficiently respond to spills. To ensure full compliance with the City's permit and LIP, this same information should be made available to all other agencies, departments, districts and contractors used by the City to implement elements of its IC/ID program.

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

See section 2.4.1 for deficiency in providing oversight to contractors conducting municipal activities for the City.

## 2.5 City of Rancho Santa Margarita

### 2.5.1 Evaluation of Program Management and Effectiveness

#### Positive Attribute:

- *The City focuses much of its program on Home Owners Associations (HOAs).*  
The City of Rancho Santa Margarita is a new city that is comprised mostly of private streets and HOAs. This makes the City somewhat unusual in that there is not a significant number of development/redevelopment projects, high-priority construction sites, or industrial facilities. Because much of the City's storm water originates within the boundaries of an HOA, it is reasonable to assume that grounds maintenance, minor construction, landscaping, and other activities typically conducted by HOAs and private homeowners could be a significant source of storm water pollution. To address the threat to water quality posed by the HOAs, the City has adopted a storm water quality program for HOAs that is enforceable under a City ordinance.

#### Deficiency Noted:

- *The City should regularly evaluate the services provided by the County of Orange and commercial contractors.*

The City relies on the County, special districts, and contractors to implement various elements of its permits, but the LIP manager does not adequately audit these activities to ensure that the contractors or other parties are implementing the program in accordance with the City's permit or LIP. The City should develop a procedure for conducting periodic audits of its contractors. The City should also develop and implement a reporting procedure to ensure that the contractors and other parties submit periodic reports of activities and certify that they are in compliance with the City's permit and LIP.

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

#### Positive Attribute:

- *The City requires commercial projects that are not subject to WQMPs to develop plans for staff education and awareness.*  
For new development and redevelopment projects not subject to the WQMP requirements, the City requires that the projects address staff education and awareness of storm water quality issues.

#### Deficiency Noted:

- *The City should ensure that prioritization forms are completed for all potential WQMP projects.*  
The City has developed a prioritization form that assists plan review staff in determining whether a WQMP is required for a particular project. However, when reviewing the files for new development projects, the evaluation team found that

prioritization forms had not been completed on a regular basis. The City should ensure that these forms are completed for all potential WQMP projects.

### 2.5.3 Evaluation of Construction Program

#### Potential Permit Violation:

- *The City failed to require a project proponent to provide evidence of existing coverage under the State's General Construction Permit.*

Part F.2.c(1)(j) of the MS4 permit requires that the City adopt construction and grading project requirements in local grading and construction permits that require construction and grading project proponents to provide evidence of coverage under the General Construction Permit. Section A-8.5 of the City's LIP mandates that the City require proof of General Construction Permit coverage before issuing a grading or building permit. The City disclosed during the records review portion of the MS4 program evaluation that a construction site subject to the requirements of the General Construction Permit was allowed to operate for a year without submitting an NOI and obtaining coverage under the permit.

#### Deficiency Noted:

- *City construction inspectors need to use all enforcement tools available to ensure compliance.*  
The field evaluation indicated that inspectors have the flexibility to give verbal warning or pursue more formal enforcement through notice of noncompliance orders, administrative compliance orders, administrative citations or fines, cease and desist orders, and stop work orders. During the field evaluation, the evaluation team observed, at the same construction site that had failed to submit an NOI, a non-storm water discharge of concrete wash water to the storm drain. The inspector issued a verbal warning for this violation. A verbal warning might be an effective means of enforcement for some violations, but an active, illegal discharge to the MS4 requires at least a written warning or even stronger action. As described in section 2.1.1, the City should develop a city-specific enforcement guide that specifies recommended actions when violations such as active discharges to the MS4 occur.

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

#### Positive Attribute:

- *The City's industrial and commercial facility inspector was knowledgeable and conducted thorough inspections.*

The City's inspector was well trained on storm water, BMPs, and enforcement of the City's storm water requirements. The inspector clearly identified deficiencies at the commercial and industrial facilities inspected and documented his findings by using an inspection checklist.

Deficiency Noted:

- *Code enforcement officers do not have citation authority.*  
Code enforcement officers who work under contract to the City do not have the authority to fine or cite violators of the City’s storm water regulations. Code enforcement officers must refer violators to the City Attorney for imposition of fines. This would typically occur in only the most egregious of cases. It might be difficult to enforce requirements when violators know that enforcement officers are not able to levy fines without involving the City Attorney. See section 2.1.1 for a recommendation on developing a city-specific enforcement guide.

**2.5.5 Evaluation of Illicit Discharge Detection and Elimination Program**

Positive Attribute:

- *The City has a GIS-based catch basin maintenance program.*  
The City has a GIS-based tracking system for its catch basin maintenance program. Maintenance personnel (city contractors) clean the catch basins annually during the dry season. Maintenance personnel carry PDAs programmed to gather essential data for each basin. If any illicit discharges are observed, they are recorded in a PDA, from which the information is uploaded to a centralized database. Illicit discharges are investigated during follow-up inspections and tracked by using the centralized database.

**2.5.6 Evaluation of Existing Development: Homeowners’ Associations**

Positive Attribute:

- |   |
|---|
| <ul style="list-style-type: none"> <li>• <i>The City has developed an HOA document (DF-1 HOA) enforceable by City ordinance.</i></li> </ul> |
|---|

Much of the City is owned and maintained by private HOAs. To comply with part F.6 of the MS4 permit and to ensure that storm water discharges from HOAs to the City’s MS4 do not cause violations of receiving water limitations, the City has negotiated with HOAs and developed an enforceable document (DF-1 HOA) that

1. Includes a list of required minimum BMPs that HOAs and their contractors must implement.
2. Requires HOAs to educate residents regarding storm water quality issues.
3. Requires HOAs to clean and maintain their catch basins.
4. Requires HOA members and contractors to fill out activity forms when performing work or maintenance that might affect storm water quality.
5. Requires HOAs to submit an annual report to the City.

The DF-1 HOA document will help the City to regulate most of the storm water discharged into its MS4.

Deficiency Noted:

- *Assessment of the HOA program is dependent on HOA self-reporting and monitoring requirements.*

The City relies on HOA self-reporting to determine whether the HOA program is effective. It might be necessary for the City to inspect HOAs periodically for illicit discharges or other violations of City regulations. The inspection would ensure that the HOAs are implementing the program effectively.