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Program Evaluation Report

City of Salinas Municipal Storm Water Program (Order No. 99-087, NPDES Permit No. CA0049981)

Executive Summary

Tetra Tech, Inc., with assistance from the California Regional Water Quality Control Board, Central Coast Region (Regional Board), conducted a program evaluation of the City of Salinas' Municipal Storm Water Program (the Program) in July 2003. The purpose of the program evaluation was to determine the permittee's compliance with the National Pollutant Discharge Elimination System (NPDES) permit (CA0049981 and Board Order No. 99-087) and to collect information for reissuance of the permit in October 2004. The program evaluation included an in-field verification of program implementation.

This program evaluation report identifies 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 deficiencies were considered the most significant:

- The City's storm water management plan needs to be updated and revised.
- The City needs a more formal program structure for managing, coordinating, and providing training for the municipal storm water program.
- The City needs to update the list of industries under the industrial inspection program.
- The City lacks an effective enforcement and compliance plan for construction and industrial sites.
- The City needs to revise the BMP handout distributed to construction operators

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

- The Monterey Regional Water Pollution Control Agency (MRWPCA), which is contracted with the City to conduct the industrial inspections, conducts thorough visual inspections, and efficiently relays findings to the City.
- City roadway and sanitary system maintenance crews utilize professional judgment and water-quality-protective practices when conducting standard procedures.
- The City's storm water hotline is well organized, ensuring that storm water-related calls are directed to appropriate staff.

- The City is working to develop authority for an administrative penalty that could be applied to noncompliant construction sites.
- The City is in the process of developing a GIS database/tracking system that identifies sanitary sewer hot spots, storm water facilities, storm water and septic line locations, as well as inlet and outfall locations.

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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, Central Coast Region (Regional Board), conducted a program evaluation of the City of Salinas' Municipal Storm Water Program (the Program) in July 2003. The purpose of the program evaluation was to determine the permittee's compliance with the National Pollutant Discharge Elimination System (NPDES) permit (CA0049981 and Board Order No. 99-087) and to collect information for reissuance of the permit in October 2004. The program evaluation included an in-field verification of program implementation. 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.

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

1.2 Permit History

The NPDES storm water permit was issued on October 22, 1999, and is scheduled to expire on October 22, 2004. The current permit, the first issued to the permittee, requires the City to implement a storm water management plan (SWMP).

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. CA0049981
- Long-term monitoring plan for the City of Salinas (dated September 1999).
- 2002 Annual Report (dated September 2002)
- Regional Board correspondence with the permittee

On July 22–24, 2003, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

Tuesday, July 22	Wednesday, July 23	Thursday, July 24
<ul style="list-style-type: none"> • Program evaluation kickoff meeting • Industrial Inspections (office and field) • Public Education and Reporting 	<ul style="list-style-type: none"> • Construction and New Development (office and field) • Municipal Maintenance and Illicit Discharges (office and field) 	<ul style="list-style-type: none"> • Outbrief

Upon completion of the evaluation, the evaluation team held an exit interview to discuss the preliminary findings. During the exit interview, those present were informed that the findings were to be considered preliminary pending further review by the Regional Board and EPA.

1.4 Program Areas Evaluated

The following program areas were evaluated:

- Program management, including the permittee's effectiveness assessment.
- Industrial Inspections
- Illicit Discharges
- Municipal Maintenance Activities
- New Development and Construction
- Public Education
- Reporting

1.5 Program Areas Not Evaluated

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

- Wet-weather monitoring program and monitoring program details (e.g., sample locations, types, frequency, parameters).
- Other NPDES permits issued to the permittee (e.g., industrial or construction NPDES storm water permits).
- Fiscal resources required or expended to implement the programs outlined in the SWMP.
- 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 permittee's 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 that the following program areas receive further evaluation. These areas are recommended for further evaluation either because the evaluation team did not review this program area, or because the evaluation team believes that an additional, more detailed, follow-up evaluation of this program area is needed.

- An in-depth evaluation of the City's long-term monitoring plan and available data to determine appropriate monitoring strategies, parameters, locations and frequency.
- Additional evaluations of the City's corporation yards and best management practices (BMPs) used during minor municipal maintenance activities.

- Additional evaluations of the City's construction site inspection and enforcement program to ensure compliance with the City's ordinance and NPDES municipal storm water permit.

2.0 Program Evaluation Results

This program evaluation report identifies 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 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, neither deficient nor exceptional.

The evaluation team did not evaluate all components of the permittee's Program. Therefore, the permittee should not consider the list of program deficiencies in this report a comprehensive evaluation of individual program elements.

The most significant program deficiencies and positive attributes identified during the evaluation are noted in the Executive Summary and are identified by text boxes in the following subsections.

2.1 Evaluation of Program Management and Program Effectiveness

Deficiencies Noted:

- *The City's storm water management plan needs to be updated and revised.*

Although the City developed a storm water management plan (SWMP) as part of the final Part 2 permit application in 1999, the plan has not been revised or updated. SWMPs provide the overall direction for program implementation and should be revised as necessary. The City's 1999 SWMP should be revised to reflect changes in how the City currently manages its storm water program, staff and resource allocations, changes to NPDES requirements (such as lowering the threshold for construction permits to 1 acre), and other relevant issues. At a minimum, the City should review its SWMP annually to determine whether it is necessary to update the plan. The City could use as an example the City of Sacramento's recently revised SWMP, available online at <http://www.sacstormwater.org/const/manuals/dl-plan.html>

In updating the SWMP, the City should analyze and assess the large volumes of sampling and monitoring data gathered as required by their current storm water permit. The City should analyze this data to determine trends, areas of significant impairment, significant pollutants, and major pollutant sources. The analysis should then be used to update and revise the SWMP. This will allow the City to determine where their resources should be directed, and which programs are more effective at protecting water quality.

- *The City needs a more formal program structure for managing, coordinating, and providing training for the municipal storm water program.*

The City of Salinas' storm water program manager had left the City just prior to the evaluation, resulting in many unanswered questions during the evaluation and a lack of program management and coordination. Although the City is advertising to fill this position, this information vacuum demonstrates the need for the City to develop a formal program structure for managing and coordinating the municipal storm water program. The City should consider forming a storm water team or similar organizational unit with regularly scheduled meetings. The City should also consider designating a lead contact for storm water from each City department with storm water responsibilities. The program management, coordination, and roles and responsibilities should be clearly described in the City's storm water management plan so this information will be helpful if a change in program management occurs.

Additionally, many City departments have not developed a written protocol for training City employees. Currently, long-term senior employees pass on training information by word of mouth during on-the-job work periods with newer employees. This method is very valuable, however there is a risk in some employees not being trained equally, and, if the senior employees leave this training knowledge is lost completely. A formal training protocol should be developed for all aspects of the storm water program.

- *The City's program does not include a formalized method or indicators that can be used to measure program effectiveness.*

The City should develop a long-term strategy for assessing the effectiveness of its program. To ensure continued support for the storm water program and provide a means to measure its effectiveness, the City should establish direct and indirect measurable goals for each program element. Direct measures focus on characterizing the water quality impacts from the permittee's municipal separate storm sewer system (MS4). Indirect measures are based on the assumption that specific program activities are effective in decreasing storm water pollution and ultimately protecting water quality.

The measurable goals should be linked to programmatic, social, or environmental indicators, such as those listed in the 1996 Center for Watershed Protection report *Environmental Indicators to Assess Stormwater Control Programs and Practices*. The following are examples:

- The City of Phoenix monitors social indicators, such as the public's knowledge of storm water issues, as a measure of success.
- The City of Sacramento has set minimum performance standards for each program element, such as a standard of 20 classroom visits each year to conduct storm water presentations.
- Sacramento County tracks the number of warnings, corrective actions, penalties, and stop-work orders issued at construction sites as a performance measure and uses the number of illicit discharges reported as an effectiveness measure.

- The City of San Clemente has established both direct and indirect measures to assess the effectiveness of its program.

2.2 Evaluation of Industrial Inspections

Positive Attribute:

- *The Monterey Regional Water Pollution Control Agency (MRWPCA), which is contracted with the City to conduct the industrial inspections, conducts thorough visual inspections, and efficiently relays findings to the City.*

The MRWPCA conducts the industrial storm water inspections, while the City provides oversight and follow-up. The MRWPCA conducts approximately 70 such inspections per year. Inspectors are trained pretreatment inspectors and are well versed on storm water pollution prevention Best Management Practices and inspection procedures. The MRWPCA inspectors also efficiently provided the results of the inspections to the City for additional follow-up, if necessary.

Deficiencies Noted:

- *The City needs to update the list of industries under the industrial inspection program.*

The City has not regularly updated the list of industrial facilities under the industrial inspection program and was unaware of the last time the industrial facilities list had been updated. The City should develop a process to update this list annually by comparing the current list to, at a minimum, industries included in the City's business database, MRWPCA's discharger database, and the Regional Board's database of industrial facilities permitted in Salinas. This process should be documented and included in the City's SWMP. The Regional Board's list of industrial facilities can be downloaded from <http://www.swrcb.ca.gov/stormwtr/databases.html>.

- *The City should develop a more formal approach to coordination with the Regional Board on industrial inspections.*
Both the City and the Regional Board conduct storm water inspections at industrial facilities. The City should work with the Regional Board to develop a formal approach to coordinate these inspections. The benefits of closer coordination between the City and Regional Board on inspections include cross-training staff on inspection techniques, avoiding duplication (inspecting the same facility twice in succession), and providing more immediate feedback when water quality issues arise at a facility.
- *The City has no plan for effective follow-up and enforcement after the MRWPCA conducts inspections.*
The City contracts with the MRWPCA to conduct industrial storm water inspections, but it is the City's responsibility to conduct any follow-up inspections or enforcement. The City does not have a formal process for conducting follow-up inspections and taking enforcement actions based on those inspections. The City should develop a plan that describes who is responsible and the process for reviewing the inspection reports, conducting any follow-up inspections, and taking enforcement

action when necessary. The plan should include an escalating enforcement policy to address noncompliance.

- *Industrial inspectors should receive periodic training on the requirements in the State General Industrial Storm Water Permit and how to conduct storm water inspections at industrial facilities.*

Although the industrial inspectors were knowledgeable about storm water quality issues at industrial sites, they lack an understanding of the requirements in the State General Industrial Storm Water Permit. The inspectors should be knowledgeable about the requirements in this permit so they can refer cases of significant noncompliance to the Regional Board. The Regional Board periodically provides storm water training workshops that these inspectors can attend. Information on this training can be found at <http://www.swrcb.ca.gov/rwqcb3/SWNEW/Workshops/index.htm>.

- *The City should consider requiring industries to stencil or label drains that discharge to storm sewers and drains that discharge to sanitary sewers.*

During the industrial inspections, it was sometimes unclear which drains discharged to storm sewers and which drains discharged to sanitary sewers. In some cases, even the facility manager did not know. The City should consider requiring industries to stencil or label these drains so both inspectors and facility staff are aware of which drains lead ultimately to treatment and which discharge through the MS4 directly to receiving waters.

2.3 Evaluation of Illicit Discharges

Positive Attributes:

- *The City is developing a GIS database/tracking system that identifies sanitary sewer hot spots, storm water facilities, storm water and septic line locations, as well as inlet and outfall locations.*

The City has contracted services to develop a GIS database/tracking system to identify municipal hot spot areas, storm water facilities (catch basins, retention pods), storm water and sanitary sewer lines, as well as jurisdictional inlets and outfalls. Existing municipal maintenance and illicit discharge information will be incorporated into the GIS database/tracking system. The system will be available for illicit discharge and emergency response crews to better the response and tacking of municipal MS4 discharges. Although the GIS database/tracking system is in the beginning stages of development, the GIS database/tracking system will allow the City to trace illicit discharges from source to outfall(s), thereby allowing the City to quickly respond to, and protect receiving water bodies. It will also allow the City to more easily locate illicit discharge sources, when discharges are found at outfall locations. It will also aid the City in planning line repair and replacement, thus helping to avert unintentional discharges to the storm drain system at old and/or damaged pipe locations.

- *The City's storm water hotline is well organized, ensuring that storm water-related calls are directed to appropriate staff.*

The City has developed a hotline system to address storm water issues and direct the issues to responsible City staff as well as other associated agencies (the fire department, police department, and other municipal agencies). The hotline is also active all week, including weekends, ensuring that appropriate staff is notified immediately. The City has coordinated with the City police department to establish an appropriate means to relay information. The City has a central dispatcher who is trained on specific storm water questions and is equipped with an easy-to-use contact flip book. In addition, the City has two other backup dispatchers to handle hotline calls.

- *The City has developed an Emergency Response Plan to address emergency spill situations and other storm water-associated circumstances.*

The City's Public Works Department has developed a series of emergency response plans (ERPs). The ERPs contain procedures for appropriate agency or department notification (who, what, when, where), and they list priority actions to be taken and procedures for containment. The ERPs also include background information on various issues. For example, the Sewer Collection System's emergency response plan discusses in detail the actions the City has taken to avoid system overflows and downstream pump station failures. The background summary describes current and past sewage system surveys and master plans, as well as regulatory drivers. Furthermore, the documents are available in the Public Works main office and accessible to all City staff.

- *The City's spill response and illicit discharge reporting systems are thorough and clearly disseminated throughout the City staff.*

Emergency spill incidents reported via the hotline or directly by City crews are forwarded to the City's Incident Command System (ICS). The ICS is a network through which selected City staff coordinates emergency response actions (whether related to storm water or other matters). The Quinn Co.-Caterpillar spill, which spilled approximately 75,000 gallons of diesel fuel in September 2002, is an example of how the ICS works. The City responded by using the ICS network and successfully coordinated the efforts of local fire, police, and City departments. The final outcome of the incident was a 96 percent recovery of the spilled diesel fuel. The overall spill reporting and response process in the City appeared highly effective, and senior management staff routinely responds to incident calls. The City staff interviewed during the evaluation understand the spill response procedures and know how to identify and respond to illicit discharges.

Deficiencies Noted:

- *The City should proactively identify and then address areas with a known high occurrence of illicit discharges.*

The City should be commended for its development of a call dispatch system, ICS response system, and spill response process and for its approach and thoroughness in terminating identified illicit discharges. However, additional efforts could be made to

proactively identify and eliminate illicit discharges. The City should consider focusing its efforts on the light industrial and commercial areas. For example, the City of Livermore has established a drive-by schedule for light industrial parks that is intended to increase its oversight presence and identify active discharges. The program requires limited staff resources and has proven very effective in eliminating discharges by educating tenants and owners. Given the high level of awareness noted, frequent and continued visibility could prove very effective in reducing the prevalence of illicit discharges.

- *The City should increase its efforts to relabel storm drains more frequently.*
In-field evaluations with municipal maintenance staff indicated that a storm drain stenciling program is in place and has labeled 1,380 storm drains to date. The stenciling program started in the late 1990s, but the storm drains have not been relabeled since then. Painted storm drain stencils typically last only 1 or 2 years, which indicates that the lettering on most of the storm drains stenciled before 2002 is probably no longer visible. The City is encouraged to track the storm drains labeled before 2002 and develop a relabeling system. Alternatively, the City may chose to use storm drain signs made out of plastic or polyurethane, which last approximately 10 years. These storm drain markers or placards are available from a number of soruces.

2.4 Evaluation of Municipal Maintenance Activities

Positive Attribute:

- *The City uses crews of county inmates to conduct routine municipal maintenance activities.*
The City has contracted with the Monterey County jail for regular municipal maintenance and regular City cleanup. The City uses inmate crews to conduct weekly, biweekly, and monthly cleanup services depending on the areas of concern. These activities include the cleanup of various detention ponds within the City's jurisdiction, as well as trash cleanup at parks, alleyways, and the airport. The inmate cleanup crews consist of three to five inmates supervised by a deputy sheriff. The City tracks and records activities conducted by the inmate crews.

Deficiencies Noted:

- *The City's corporation yard lacks adequate controls to prevent storm water contamination.*
The City's corporation yard lacks basic controls to prevent storm water contamination. The City is adopting a capital improvements project to implement structural storm water controls, such as overhangs for the hazardous waste storage area as well as the outdoor wash rack. The corporation yard has two main storm drains that currently have silt sack BMPs. At the time of the inspection, the silt sacks were poorly maintained and there was non-storm water discharging from the leaf debris stall.

Although the City has developed a monthly municipal maintenance checklist, the checklist was not detailed enough to track BMP inspection and maintenance needs at

the corporation yard. The City should develop specific maintenance checklists that list the various BMPs required at each municipal facility, including both source control and treatment BMPs. This checklist should be completed during weekly, or as needed, yard inspections.

The evaluation team identified the following storm water problems at the yard:

- Exposed stockpiles of road aggregate in stalls lacked stabilization. The stockpile showed signs of sediment and materials transport.
- Spill kits were not adequately labeled and immediately identifiable. In addition, the spill kits were located in areas that were inaccessible to field staff. The City was encouraged to obtain more spill kits, place them in locations with a high potential for spills, and make them easy to access and highly visible.
- A wash rack discharged directly to the storm drain system without any pretreatment other than the silt sack.
- Street sweeping and leaf pickup debris was stored approximately 10 feet from a storm drain. The street sweeping and leaf debris stockpiles had no visible storm water controls, such as covers, fiber roll berms, and other containment and stabilization BMPs.
- Cars stored outside the fleet maintenance shop had no drip pans. The cars had been stored onsite for approximately 1 year. Some cars with leaks were identified. The City was encouraged to obtain drip pans or other controls for the leaking cars.

Brief discussions with one of the staff members at the yard demonstrated that the staff has minimal awareness of proper storm water management BMPs. The City should develop a storm water pollution prevention plan for the yard; implement appropriate storm water BMPs, including good housekeeping practices; and train maintenance staff on proper storm water management techniques.

- *The City lacks a formalized training program for municipal maintenance staff.*
The City's municipal maintenance staff attend monthly "tail gate" safety meetings. Safety and other municipal maintenance issues are discussed at the meetings. Occasionally storm water issues have been discussed during the "tail-gate" meeting, but the discussions have never been documented. The City should establish a formal training program to disseminate storm water information to field staff. The City is responsible for giving field staff the tools and education they need to ensure proper storm water control practices during routine maintenance activities.
- *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, road patching, etc. 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 City of Sacramento has also developed a guidance manual for routine municipal maintenance activities.

- *The City should consider developing a list of identified illegal dumping hot spots.* Evaluations with the Municipal Maintenance Department revealed that the City does not have a written priority list of illegal dumping areas. The City should consider documenting and identifying illegal dumping hot spots, conducting regular inspections to discourage additional dumping incidents, and taking appropriate actions to prevent illegal dumping. These actions should be described in both the SWMP and Annual Reports.

2.5 Evaluation of New Development and Construction

Positive Attribute:

- *The City is working to develop authority for an administrative penalty that could be applied to noncompliant construction sites.*

When faced with significant noncompliance at a construction site, the City has the option of either issuing a stop work order or pursuing a violation as a misdemeanor. The City is developing authority to issue administrative penalties that would apply to all City ordinances. This would allow construction inspectors to issue immediate nominal fines (for example, \$100 to \$500) for noncompliance at construction sites, which should help increase compliance when verbal warnings are not effective.

Deficiencies Noted:

- *The City lacks an effective enforcement and compliance plan for construction sites.*

On at least one of the construction sites visited during the evaluation, sediment control practices were missing after repeated requests by the inspector to the contractor to install them. The only enforcement option available to the inspector was a stop work order or a civil violation, both of which the inspector was reluctant to pursue for missing catch basin filters. The City should develop a written plan for enforcement and compliance at construction sites that provides guidance to inspectors on appropriate steps to take after verbal warnings fail. The City's development of an administrative penalty, when finalized, should be built into this plan. Additionally, the enforcement plan should identify when non-compliance sites will be referred to the Regional Board.

- *The City needs to revise the BMP handout distributed to construction operators.*

The handout the City distributes to construction operators is missing some important information. For example, the design standard for a stabilized construction entrance does not include installing filter fabric under the aggregate. Also, the handout is missing the detail for a concrete truck washout, and the catch basin filter was not designed to prevent the filter from falling back into the catch basin. The filter fabric should be significantly longer than 3 inches beyond the grate, or it should be placed

over the grate when the public does not have access to the site. The City was beginning to correct these omissions during the evaluation.

- *The City should develop a more formal approach to coordination with the Regional Board on construction inspections.*
Both the City and the Regional Board conduct storm water inspections at construction sites. The City should work with the Regional Board to develop a formal approach to coordinating these inspections. The benefits of closer coordination between the City and Regional Board on inspections include cross-training staff on inspection techniques, avoiding duplication (inspecting the same construction site twice in succession), and providing more immediate feedback when water quality issues arise at a construction project.
- *The City should include more detail on erosion and sediment control requirements in specifications for new Public Works or City projects.*
The City's specifications for public projects generally require contractors to prepare a storm water pollution prevention plan (SWPPP). Contractors are usually required to list in their bid proposals a total cost to "prepare a storm water pollution prevention plan (quantity: 1)," however, other items in the bid, such as concrete curb and gutter (for example, a quantity of 200 linear feet) are described in more detail. This bidding process allows some contractors to underbid SWPPP costs, which in turn complicates compliance with the SWPPP during implementation. The City should consider a bid process in which specific quantities of erosion control materials are listed or alternatively, a standard (of minimum) SWPPP cost is estimated for all contractors. Such an approach should help to eliminate any bias in estimating compliance costs associated with the erosion and sediment control requirements of the project.
- *Construction inspectors should receive periodic training on the requirements in the State General Construction Storm Water Permit and how to conduct storm water inspections at construction sites.*
Because the City uses several different types of inspectors for erosion and sediment control compliance, adequate training is essential. The inspectors should be knowledgeable about the requirements in the State General Construction Storm Water Permit so they can refer cases of significant noncompliance to the Regional Board. Inspectors should also be trained on storm water BMPs and inspection techniques. The Regional Board periodically provides storm water training workshops. Information on this training is available online at <http://www.swrcb.ca.gov/rwqcb3/SWNEW/Workshops/index.htm>. Additional training and technical resources are available from the International Erosion Control Association at <http://www.ieca.org>.
- *Construction inspectors should use an inspection form specific to storm water during inspections.*
The City's construction inspectors are not using inspection forms specifically developed for construction site storm water inspections. A storm water-specific inspection form would prompt the inspector on the critical BMPs and water quality concerns to check onsite and would provide documentation on the City's

implementation of the storm water program. The City should develop a storm water inspection form similar to the form used by the City's industrial storm water inspectors. An example of a construction inspection form used by the Regional Board is available at

<http://www.swrcb.ca.gov/rwqcb3/SWNEW/PhaseI/Construction/ConstructionInspectionForm.pdf>.

- *The City should consider employing a dedicated erosion and sediment control inspector.*

The City employs several different inspectors to ensure compliance with erosion and sediment controls, including building inspectors and public works inspectors. The inspectors have multiple responsibilities, one of which is erosion and sediment control. This approach can lead to placing less emphasis on erosion and sediment control compliance when other issues, such as inspecting road or building construction for compliance with standards, take more time. The City should consider hiring a dedicated erosion and sediment control inspector who would be responsible for inspecting all active construction sites. This inspector, whose primary responsibility would be ensuring compliance with erosion and sediment controls, would be able to focus on storm water and build relationships with local contractors implementing erosion and sediment controls. Using dedicated erosion and sediment control inspectors has worked successfully for a number of other cities, including Santa Rosa and Oxnard.

- *The City will need to address post-construction runoff in the next permit term.*

The City's current permit does not specifically require programs to control post-construction runoff from new developments (often called development standards). The control of post-construction runoff is important because increased development and impervious surfaces also results in additional pollutants in storm water runoff and increases the quantity of storm water runoff potentially resulting in downstream flooding and stream bank erosion. State Board Order WQ 2000-11 effectively requires all new Phase I MS4 permits to contain development standards (called Standard Urban Stormwater Mitigation Plans or SUSMPs in the Order). As the City creates these development standards, it may wish to review the following resources:

- Los Angeles Regional Water Quality Control Board's web site on SUSMPs available at: http://www.swrcb.ca.gov/rwqcb4/html/programs/stormwater/susmp/susmp_details.html
- The San Diego Model SUSMP available at: http://www.swrcb.ca.gov/rwqcb9/programs/sd_stormwater.html
- City of Los Angeles Development BMP Handbook, Part B – Planning Activities available at <http://www.lastormwater.org/Pages/partb.htm>

The City may also wish to review the prescriptive methods described in the City of Los Angeles' Development BMP Handbook in Appendix C. The prescriptive methods outline the specific BMPs to be incorporated into design plans for certain categories. Appendix C contains prescriptive methods for a retail gasoline outlet, automotive repair shop, parking lot, and restaurant. These prescriptive methods give

guidance to both developers and plan reviewers as to the minimum expected level of storm water control for certain project categories.

2.6 Evaluation of Public Education

Positive Attributes:

- *The City has volunteer and neighborhood services coordinators to facilitate public participation activities.*

The City has established two full-time positions for a volunteer coordinator and a neighborhood services coordinator. Although these positions address a broad variety of issues, the City has used these positions to coordinate volunteer cleanup activities and neighborhood outreach activities. The coordinators are also active in distributing storm water brochures in residential areas and participating in Recycle Day events, Earth Day events, and other environmental special events. The volunteer services coordinator tracks each project name, people attended, activities accomplished, and budget funds used to accomplish the activities.

- *The City has developed a residential ordinance guidebook to inform the residential community about storm water ordinances.*

The City has developed a guidebook that explains the residential ordinances. The guidebook is an easy-to-use reference that addresses recycling, pet waste, household hazardous waste, and water conservation, as well as storm water-specific ordinances. The booklet is handed out at special events and is available at the main City Hall office.

Deficiencies Noted:

- *The City lacks a mechanism to measure the effectiveness of its public education program.*

Currently, the City's public education and participation components are broad in nature, and the City does not have a process to measure their effectiveness. To better focus the program, the City should consider developing a survey mechanism to track the effectiveness of its current and future public education programs. A more focused approach might ultimately conserve valuable program resources. The County of San Joaquin, for example, has developed a half-sheet questionnaire handed out at Earth Day and other special events. The questionnaire incorporates five general storm water questions and asks for the residential area in which the participant resides. The County of San Joaquin uses the questionnaire to determine how well its storm water information is being disseminated. Other communities, such as San Diego and Sacramento, have conducted surveys to track the public's awareness of storm water pollution and how human activities can affect water quality. An example of a report on a telephone survey on storm water awareness conducted in San Diego County is available at:

http://www.projectcleanwater.org/pdf/Carlsbad/public_awareness_03_car_slr.pdf

- *The City should broaden the types of educational materials available and how the materials are disseminated to target audiences.*

The City should consider developing additional educational materials that specifically target storm water practices for, at a minimum, households, automotive facilities, restaurants, and industrial facilities. The City should use information gained from site inspections and municipal complaints to more specifically target public outreach to specific areas and pollutants. Furthermore, the City should investigate additional methods to reach target audiences, such as the use of industry-specific trade groups or publications, industry-specific gatherings such as swap meets, and various media such as radio, newspaper, and the Internet.

2.7 Evaluation of Reporting

Deficiency Noted:

- *The City lacks an adequate annual reporting process for program analysis.*
In-office evaluations and document review revealed inadequate annual reporting. The annual report includes an introduction, assessment of program implementation and compliance, and monitoring, and it discusses the 2002–2003 work plan. However, the report does not discuss specific program components, such as construction, industrial inspections, public education and participation, and illicit discharge elimination. The annual report also lacks analysis of the program performance standards listed in Appendix A. The City should discuss, analyze, and track programmatic information obtained for the fiscal year.