

Program Evaluation Report

Fresno Metropolitan Area Stormwater Program: Fresno Metropolitan Flood Control District; Cities of Fresno and Clovis (NPDES Permit No. CA0083500)

Executive Summary

Tetra Tech, Inc., with assistance from the California Regional Water Quality Control Board, Central Valley, conducted a program evaluation of three of the five co-permittees implementing the Fresno-Clovis Metropolitan Area Urban Stormwater Discharges Program (Program). This program evaluation occurred in January 10, 2005. The twofold purpose of the evaluation was (1) to determine the co-permittees' compliance with the National Pollutant Discharge Elimination System permit (CA0083500 and Board Order No. 5-01-048) and (2) to evaluate the current implementation status of the co-permittees' Stormwater Quality Management Programs with respect to U.S. Environmental Protection Agency stormwater regulations. The program evaluation included an in-field verification of program implementation. The three co-permittees evaluated were the cities of Fresno and Clovis, and the Fresno Metropolitan Flood Control District (District).

This program evaluation report identifies permit violations and program deficiencies as well as 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 Program deficiencies are considered the most significant:

- The District lacked an appropriate enforcement escalation mechanism to address issues of continuous non-compliance
- The City of Fresno does not require erosion and sediment control best management practices to be included on development grading plans and does not review stormwater pollution prevention plans (SWPPPs) submitted for private development projects.
- A City of Clovis capital improvement project (CIP) Project did not include a SWPPP or submittal of a Notice of Intent for coverage under the State's Construction General Stormwater Permit.

Several elements of the co-permittees' Program were particularly notable:

- The District has developed a "Partners for Clean Stormwater" program that targets businesses, organizations, and public agencies.

- The City of Fresno's Solid Waste Division of the Public Utilities Department operates an impressive public education and outreach oil recycling and household hazardous waste program.

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1.0 Introduction

1.1 Purpose of Program Evaluation

The twofold purpose of the Fresno-Clovis Metropolitan Area Urban Stormwater Discharges Program (Program) evaluation was (1) to determine the co-permittees' compliance with their National Pollutant Discharge Elimination System (NPDES) permit (CA0083500 and Board Order No. 5-01-048) and (2) to evaluate the current implementation status of the co-permittees' Stormwater Quality Management Program (SWQMP). Secondary goals included the following:

- Reviewing the overall effectiveness of the Program;
- Identifying and documenting positive elements of the Program that could benefit other Phase I and Phase II municipalities; and
- Acquiring data to assist in re-issuance of the permit.

Title 40 of the Code of Federal Regulations (40 CFR) Section 122.41(i) provides the authority to conduct the program evaluation.

1.2 Permit History

The NPDES stormwater permit was issued on March 16, 2001, and is scheduled to expire on March 16, 2006. The current permit, the second issued to the co-permittees, requires the permittee to develop and implement the SWQMP.

1.3 Logistics and Program Evaluation Preparation

Before initiating the on-site program evaluation, Tetra Tech, Inc. (Tetra Tech) reviewed the following materials:

- NPDES Permit No. CA0083500;
- 2003/2004 Annual Report, Volume 1;
- Regional Water Quality Control Board (Regional Board) correspondence with the co-permittees; and
- Co-permittees' Web sites.

On January 10, 2005, Tetra Tech, with assistance from the Regional Board, conducted the program evaluation of all permittees. The evaluation schedule for each co-permittee was as follows:

Monday, January 10	Tuesday, January 11	Wednesday, January 12
<ul style="list-style-type: none"> • Program evaluation kickoff meeting and Program overview • Public Involvement and Education • Illicit Discharge • Industrial and Commercial activities (office) • Industrial and Commercial Inspections (field) 	<ul style="list-style-type: none"> • Operations and Maintenance (office) • Operations and maintenance (field) • Construction and Development, Structural Controls (office) 	<ul style="list-style-type: none"> • Construction and Development (field) • Program Effectiveness • Outbrief

Upon completion of the evaluation, an exit interview was held to discuss the preliminary findings. During the exit interview, the attendees were informed that the findings were to be considered preliminary pending further review by the U.S. Environmental Protection Agency (U.S. EPA) and the Regional Board.

1.4 Program Areas Evaluated

The following Program areas were evaluated:

- Program management, including the co-permittees’ assessment of SWQMP effectiveness;
- Operations and Maintenance Component;
- Industrial and Commercial Component;
- Construction and Development Component;
- Structural Controls Component;
- Illicit Discharge Component; and
- Public Involvement and Education Component.

1.5 Program Areas Not Evaluated

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

- Other NPDES permits issued to the co-permittees (e.g., industrial or construction NPDES stormwater permits).
- A detailed evaluation of the Fresno Metropolitan Flood Control District’s monitoring program, including a detailed review of documentation, results, and field locations.
- Inspection reports, plan review reports, and other relevant files. The Program evaluation team did not conduct a detailed file review to verify that all elements of the Program were being implemented as described. Instead, observations by the evaluation team and statements from the co-permittees’ representatives were used to assess overall compliance with the permit requirements. A detailed file review of specific Program areas could be included in a subsequent evaluation.

1.6 Program Areas Recommended for Evaluation

The evaluation team recommends the following additional assessments:

- Further evaluation of the construction/development component implementation and tracking programs of each permittee; and
- A review of how the permittees address Program effectiveness and evaluation of the SWQMP in the next annual report.

2.0 Program Evaluation Results

This evaluation report identifies permit violations, Program deficiencies, and positive attributes; it is not a formal finding of violation. Program deficiencies are areas of concern for successful Program implementation. Positive attributes indicate a co-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, they were neither particularly deficient nor innovative.

The evaluation team did not evaluate all components of each permittee's Program. Therefore, the co-permittees should not consider the enclosed list of deficiencies to be a comprehensive evaluation of individual Program elements.

The most significant permit violations, Program deficiencies, and positive attributes identified during the evaluation are noted in the Executive Summary and are identified with text boxes in the following subsections.

2.1 Fresno Metropolitan Flood Control District (District)

2.1.1 Evaluation of Program Management and Effectiveness

Deficiencies Noted:

- *The District should more directly involve other co-permittees in the development and implementation of the stormwater program.*

The District is the lead permittee for the development and implementation of the stormwater program. Although Section 6 of the Fresno-Clovis SWQMP discusses roles and responsibilities, during in-office evaluations it was observed that the other co-permittees were not fully engaged in participating in and implementing the stormwater program. Additionally, the District has established institutional agreements (memorandums of understanding, or MOUs) with each co-permittees, but does not adequately identify specific roles and responsibilities for the implementation of the stormwater program.

The Cities did not appear officially accountable for their roles in stormwater program implementation. It appeared that the District was officially responsible for stormwater program implementation and development with little input from the cities. Although section 1.5 and figure 1-3 of the SWQMP discuss agency participation with

the Program, the District should develop a formalized implementation plan that clearly identifies the roles and responsibilities for each co-permittee. For example, during in-office interviews with the permittees, the evaluation team had requested a description of best management practice (BMP) implementation roles and responsibilities and/or a flow chart detailing the organization of the stormwater program. The District was unable to provide a flow chart or a clear description of the stormwater program organization. Developing a formalized implementation flowchart or plan will facilitate a common understanding of program implementation roles as well as a process for allocating staff responsibility.

- *The District should take steps to more comprehensively evaluate program effectiveness.*

The District is not taking adequate steps to comprehensively evaluate program effectiveness and to go beyond the collection of water quality monitoring data. The current annual reports summarize past activities but do not provide detailed analysis of those activities. The District should use the annual report preparation process to analyze not only what happened but also why it happened and what needs to change in the future so the Program can be improved. Ultimately, this evaluation will help the permittees to improve implementation of the Program and help document water quality improvements.

For additional information on program effectiveness, the District 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 Stormwater co-permittees. A copy of the report is available at http://www.projectcleanwater.org/pdf/copermittees/assessment_framework_final.pdf

- *The District should consider revising the current measurable goals to more specifically quantify expectations.*

A reduction in pollutant runoff to the maximum extent practicable (MEP) requires effective implementation and tracking of BMPs, which in turn requires the development of effective measurable goals. Although Appendix A of the Fresno-Clovis Stormwater Quality Management Plan describes and identifies selected BMPs, measurable goals are unclear. For example, the measurable goal for BMP IND-1 states that the District will “review industrial facility inspections and enforcement procedures and revise, as necessary, to address Phase II requirements.” The District should revise the measurable goals to specify the quantifiable target to be achieved. The quantifiable target should also include a date or timeframe for completion of the activity.

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| <ul style="list-style-type: none"> • <i>The District lacked an appropriate enforcement escalation mechanism to address issues of continuous non-compliance.</i> |
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During in-office interviews District staff exhibited a lack of knowledge of the District's legal authority and enforcement element that addresses continuous occurrences of non-compliance. Section 4 of the SWQMP describes the stormwater quality and discharge control ordinance and its implementation through the co-permittees. Page 4-3 of the SWQMP describes an enforcement escalation procedure that triggers corrective actions in situations of continuous non-compliance. The District should ensure that all stormwater staff are trained on this mechanism. Most importantly, the District should focus these enforcement escalation procedures on the Illicit Discharge, Industrial/Commercial, and Construction programs.

2.1.2 Evaluation of Public Involvement and Education Program

Positive Attributes:

- *The District has developed a "Partners for Clean Stormwater" program that targets businesses, organizations, and public agencies.*

This program is managed by the District, but targets businesses located in the entire metropolitan area. To become a partner, each business is required to keep outdoor areas clean, prevent and clean up spills, store materials properly, eliminate improper discharges to storm drains, label storm drains with "No Dumping" signs, and train employees to prevent stormwater pollution. The program also includes an incentive component under which the District will place advertisements for the participating businesses in local newspapers on an annual basis. Other benefits to being a partner include receiving free customer recognition materials, free employee training materials, sponsoring "Business of the Year" Awards, and receiving free stormwater pollution prevention consultation.

- *The District has developed an extensive and comprehensive public education and outreach campaign.*

The District's public education program includes a stormwater hotline, classroom education, business/commercial education, water conservation materials, recycling programs, integrated pest management (IPM) education materials, television advertisements, and other educational activities. The District has developed a "water beneath your feet" public service announcement (PSA) campaign addressing stormwater, water conservation, illegal dumping, and other water pollution issues. The PSAs are advertised year-round in both English and Spanish.

Deficiency Noted:

- *The District should analyze the results of surveys to help improve and target their public education program.*

Although the District has conducted two area-wide phone surveys, the District has not analyzed results of the surveys to identify potential problem areas or specific audiences to target. BMP PIE-1 of the SWQMP requires the District to "assess the effectiveness of public involvement and education (PIE) activities in communicating the stormwater pollution control message and encourage behavioral change." The District should analyze the surveys to assess current public education outreach efforts

and identify potential areas of the MS4 or specific target audiences who would benefit from additional focused public outreach.

2.1.3 Evaluation of Illicit Discharge Program

Adequate.

2.1.4 Evaluation of Industrial and Commercial Program

Positive Attribute:

- *The District industrial/commercial inspector was thorough and used an extensive database to assist with the inspections.*

The District industrial inspector demonstrated good working knowledge of stormwater controls associated with industrial and commercial activities. The City inspector was equipped with a thorough checklist and organized educational materials to conduct industrial inspections. The inspector was able to offer recommendations for better housekeeping practices and communicate the District's ordinance for illegal discharges. Also, the District inspector had access to an extensive database which contained historical information, pictures, follow-up inspections dates, names of property owners, and other useful information.

Deficiencies Noted:

- *The District should cross train other agencies to ensure consistent industrial and commercial inspections.*

The District had developed a training matrix to assist in training other agency industrial site inspectors, such as the Regional wastewater division inspectors, County Certified Unified Program Agency (CUPA) inspectors, Clovis Fire inspectors, and other pollution prevention personnel. Although these agencies are included in the training matrix, the evaluation team observed that methods for inspections vary between the agency inspectors. The District should augment the existing training matrix to include inspection-specific issues, such as industrial procedures, enforcement procedures (section 4 of the SWQMP), and materials used in routine industrial inspections. Specific training for these agencies will increase the level of consistency among different agency inspectors. Training may also include a field component where all agencies conduct a group inspection.

2.1.5 Evaluation of Operations and Maintenance Programs

Positive Attribute:

- *The District developed a geographic information system (GIS) -based computer system to track routine maintenance on some of the stormwater control drainage basins.*

The District has developed an automated GIS-based tracking system to routinely monitor jurisdictional drainage basins. The automated computer system is capable of monitoring flow (influent and effluent) and capacity; it can also signal an on-site automatic sampling device to extract samples. The device is used for remote monitoring of the drainage basin system.

Deficiency Noted:

- The District should develop a specific set of procedures for routine municipal maintenance conducted by the District.*

Although the District has developed guidelines for road maintenance, street cleaning, corporation yard maintenance, golf course maintenance, and park and open space maintenance, the District lacked written standards for routine maintenance activities conducted by District staff such as flooding issues, conveyance pipe maintenance, and other District maintenance activities. BMP OM-2 in the SWQMP requires the permittees to “review and revise guidelines as necessary to accommodate changes in operations or activities, or address other stormwater concerns.” The BMP lacks a description of guidelines for maintaining drainage basins as well as the stormwater sewer system under the jurisdiction of the District. Such standards would be useful for new employees as well as current staff. Although routine maintenance of drainage basins and the storm drain system is not identified in BMP OM-2, it is recommended that the District develop a formalized set of procedures for maintaining its jurisdictional stormwater facilities.

2.1.6 Evaluation of Construction and Development ProgramPositive Attributes:

- The City construction inspector was knowledgeable, conducted thorough inspections, and demonstrated adequate legal authority.*

The City construction inspector was knowledgeable regarding installation and maintenance of erosion and sediment controls. The inspector also distributed stormwater outreach materials to on-site construction contractors. The construction inspector was able to clearly identify on-site deficiencies and offer recommendations for erosion and sediment controls to be installed. For example, during the Zincon development construction site inspection, the inspector identified poor sediment controls and storm drain inlet protection and was able to require the contractor to address the issues immediately. The inspector demonstrated adequate knowledge of BMPs implemented on-site and ensured the BMPs were properly maintained.
- The District has developed a task force to aid the public in the development and planning process.*

In an effort to streamline the entitlement process for development and/or subdivision of property, the District has partnered with various city and state agencies to form “Task Force 3.” This task force provides free consultation for private citizens and professionals three times a week at the Fresno City Hall. Representatives are available during the mornings and appointments are not needed. The task force focuses on general questions concerning permits needed to build, excavate, and/or subdivide. The task force not only aids in the development process, it also increases public awareness and communication with public agencies. Furthermore, the task force assists the stormwater programs by disseminating the stormwater protection message, streamlining the plan review process by addressing stormwater issues up

front, and answering any stormwater permitting and erosion/sediment control questions.

City of Fresno

2.2.1 Evaluation of Program Management and Effectiveness

Deficiency Noted:

- *The City lacks adequate coordination, communication and tracking among departments responsible for stormwater management program implementation.* The City departments responsible for stormwater program implementation lack a communication mechanism to regularly address issues related to program implementation and activities tracking. While the City does have a NPDES coordinator in the Public Works Department who is responsible for communicating with the District, it is recommended that the coordinator develop a more effective method of regular communication (i.e., regular meetings, email updates) with District staff. The development of an effective communication mechanism will facilitate implementation, tracking, and reporting of City stormwater activities. For example, it is recommended that the City of Fresno better track construction inspections, spill response, illicit discharge detection, code enforcement actions, and municipal operations.

2.2.2 Evaluation of Public Involvement and Education Program

The District is required to perform the majority of the public involvement and education BMPs in the current SWQMP.

2.2.3 Evaluation of Illicit Discharge Program

Positive Attribute:

- *The Solid Waste Division of the Public Utilities Department operates an impressive public education and outreach oil recycling and household hazardous waste (HHW) program.*

The Solid Waste Division has developed an extremely comprehensive oil recycling and HHW public education and collection program as required by BMP ID-2. The HHW program encompasses classroom education, business/commercial education, waste oil recycling, household hazardous waste collection, recycling, and other educational activities. The program includes more than 100 classroom presentations, 40 public education events, and more than 300 individual presentations to City residents. Materials have been translated into Spanish and Hmong for maximum distribution to the City’s population. Educational “Student Kits” are provided to high school auto shop students to inform them about oil recycling. The kit includes a funnel, shop rag, and waste oil collection container in addition to general informational materials. In addition, the City provides curb-side used oil and oil filter pick up for all City residents.

Deficiency Noted:

- *The City lacks the use of native or drought tolerant species for capital improvement or private development projects in an effort to minimize water consumption.*
The City currently irrigates more than 300 acres of street medians and buffer areas, in addition to many areas along sidewalks that are in the right-of-way or in City-owned landscaped areas. According to the Fresno-Clovis SWQMP, BMP ID-1, the City is required to “coordinate with water conservation and other resource conservation programs to reduce discharges of irrigation waters to the storm drain system.” The City does not require or encourage the use of native vegetation or drought-tolerant species on municipal property or for private development projects. It is recommended that the City assess current vegetation selection criteria and landscape management approaches for all municipally owned or maintained properties to promote water conservation and to reduce pesticide and herbicide use. Further, it is recommended that the City reevaluate the Master Tree Plan, Master Tree List (as cited in Article 3 “Street Trees and Parkways” of the Municipal Code) and any other guidance documents to ensure that use of native and drought-tolerant species is strongly encouraged for landscaping projects within the City’s jurisdiction.

2.2.4 Evaluation of Industrial and Commercial Program

Deficiencies Noted:

- *Pretreatment inspectors lacked adequate authority to require compliance with stormwater regulations during a site visit and are not included in the District enforcement and follow-up activities.*
If stormwater noncompliance issues are found during an inspection performed by the City of Fresno’s pretreatment staff, the inspector must notify District staff, who inspect the facility again to stipulate the required BMPs and determine enforcement requirements. The pretreatment inspector does not participate in any compliance or follow-up enforcement activities. The evaluation team recommends that either stormwater compliance authority be given to the pretreatment inspectors or that they be included in the District follow-up compliance inspections and enforcement actions. These actions will facilitate better BMP education for the pretreatment inspectors and to ensure consistent inspections.
- *The City pretreatment inspectors do not use the existing industrial/commercial stormwater inspection checklist developed by the District.*
The City’s pretreatment inspectors annually inspect 16 facilities for stormwater issues. The inspectors do not use the District’s checklist to document specific stormwater BMPs or compliance issues. BMP IND-1, measurable goal 3.b.of the SWQMP requires the development of a stormwater quality checklist to be used by all co-permittees to ensure consistent industrial facility inspections. Pretreatment inspectors should use the revised stormwater checklist developed by the District.

2.2.5 Evaluation of Operation and Maintenance Program

Positive Attribute:

- *The City's Fleet Maintenance Division has purchased several new machines used to better clean up oil and coolant spills at the corporation yard and out in the field.*
The City has purchased several "SpillPro" machines for use at the fleet maintenance facility and on a field service truck. These machines use pressurized air to vacuum up spills of petroleum oil or coolant (there are separate machines to eliminate the chance for contamination). The machine also has a brush tool to clean up oily stains on concrete or asphalt. In addition, the City is using the machine to service equipment in the field, such as removing oil from the vehicle using suction, which eliminates the chances for drips or spills during oil changes or other vehicle maintenance in the field.

Deficiency Noted:

- *The City's corporation yard lacks a facility SWPPP and lacks in-house inspections to verify that stormwater management BMPs are being implemented.*
The City's corporation yard is approximately 16 acres and is managed by the Facilities Management Division. Each department or division that occupies the facility is treated as a tenant and is responsible for housekeeping, hazardous materials disposal, spill response and prevention, and other stormwater-related tasks. The Fresno-Clovis SWQMP indicates that supervisory oversight and periodic inspections are necessary to verify the corporation yard stormwater management guidelines are being implemented. While the corporation yard staff have been trained by the District, no guidance document for stormwater management, such as a facility stormwater pollution prevention plan (SWPPP), has been developed. A SWPPP would provide consistent, formal guidance and direction for current staff and supervisors as well as new employees. The City should develop a SWPPP for the corporation yard. This document can be a master SWPPP for the entire facility or a compilation of individual SWPPPs for each tenant. This would require each supervisor to be responsible for the requirements outlined in the tenant SWPPP.

In addition, while the District inspects the corporation yard annually, the City should perform periodic inspections of the yard during the year to ensure that BMPs are implemented and maintained as required. These inspections can be required of tenant supervisors and coordinated by the Facilities Management Division. Regular in-house inspections will help ensure that BMPs are maintained and that stormwater issues are consistently addressed.

2.2.6 Evaluation of Construction and Development Program

Positive Attribute:

- *The City has developed a model SWPPP template for public projects and requires submittal of a completed SWPPP for every capital improvement project (CIP) contract bid.*
The SWPPP template provides general guidance, examples of project-specific BMPs, and BMP specifications where necessary. The SWPPP is to be completed and presented with the bid package for any CIP project. In addition, the SWPPP is

included with all approved “specifications” packages to be used during project construction.

Deficiencies Noted:

- *The City does not require erosion and sediment control BMPs to be included on development grading plans and does not review SWPPPs submitted for private development projects.*

The City’s Building Department requires that a grading plan and a SWPPP be submitted for every development project disturbing more than 1 acre. In addition, the City verifies that projects have filed a Notice of Intent (NOI) with the state as required. The City—in collaboration with the District—has developed and reviewed the construction activity control policy as well as the construction site guidelines (BMP DEV-01). Although the City plays a role in the distribution and implementation of the construction activity policy, it was apparent that the City does not review the SWPPPs or require that erosion and sediment control (ESC) BMPs be included on the required grading plans. Therefore, ESC plans are not reviewed to determine completeness or adequacy. By not reviewing and requiring basic BMPs on erosion and sediment control plans, the City increases the chances that inadequate plans will be approved. Inspectors in the field must then react to stormwater issues and require changes based on best professional judgment in the field as opposed to an approved enforceable plan.

The City is not obligated to review SWPPPs for completeness, as they are a requirement of the state’s construction general permit (CAS000002) and the City cannot enforce a state general permit. However, the City is required to develop and implement a program to address stormwater runoff from construction sites under U.S. EPA Phase I MS4 regulations found at 40 CFR 122.26(d)(2)(iv)(D); these regulations include item (1) “A description of procedures for site planning which incorporate consideration of potential water quality impacts.” In addition, the City’s MS4 permit (Provision D. 21) states that the City is to use building permits to implement stormwater control provisions in order to assist the Regional Board in ensuring compliance with the construction general permit. The City should require ESC BMPs to be included on all grading plans in addition to the SWPPP’s BMP Plans. The City can review and approve the grading plans with the ESC BMPs included, providing a better enforcement tool for the inspectors in the field and ensuring that a minimum standard of effectiveness is required on all ESC plans prior to approval and issuance of building permits.

- *The City does not use erosion control or stormwater pollution prevention standard conditions for approval of private development projects.*
As noted above, the City is not adequately using planning requirements to ensure that minimum standards for ESC are implemented at construction sites. Standard conditions for site plan approval should be used to require effective ESC and pollution prevention BMPs and should be applied to every new and redevelopment project in the City. Although BMP DEV-2 discusses determining the need to develop and adopt specific design and pollution prevention standard requirements, the

inspection team recommends that the City develop a set of standard conditions and begin utilizing them for all projects that require plan approval.

- *The City does not follow formal procedures or use a checklist to perform stormwater inspections at construction sites.*
 According to the Fresno-Clovis SWQMP BMP DEV-1, inspection guidance materials and checklists are to be used for each phase of construction. In addition, Provision D.12 of the MS4 permit required that by 15 September 2001 the Discharger was to have submitted a template stormwater inspection checklist, which would be used by the permittees to assist in compliance. The Building Department inspects construction projects from the right-of-way to the building site. The Public Works department is charged with inspecting the right-of-way and streets. While all of the City's inspectors have been trained by the District, neither department (Building or Public Works) has used the standard inspection procedures that provide inspectors with consistent guidance on adequate BMP installation and maintenance, record-keeping, and enforcement procedures. The Building Department inspectors do not use the checklist or log to document and track erosion control and stormwater inspections or issues at sites. The checklists are only used by Public Works when there is an issue that cannot be resolved verbally. Consistent use of the checklists and inspection protocols is important to ensure that consistent and effective inspections occur and that an accurate record of compliance (or noncompliance), including verbal warnings, is maintained for each construction site and developer. The inspection team recommends that both the Building and Public Works Department inspectors consistently follow the inspection protocols and use the checklist for providing information about erosion control and pollution prevention BMPs.
- *The City does not adequately track construction inspections and enforcement activities.*
 Neither department (Building or Public Works) documents routine stormwater inspections either in hard-copy form or electronically. The City does not use stormwater inspection logs or databases. The only tracking completed regarding stormwater issues on private construction sites in the City of Fresno is the complaint database maintained by the District for instances of non-compliance severe enough to merit the District involvement. According to Provision D.8 of the City's MS4 permit, a summary of construction activity stormwater inspections conducted during the year must be submitted in the annual report and must include (a.) the number of inspections conducted, (b.) follow-up activities, (c.) results of follow-up activities and enforcement, and (d.) proposed improvements to the program. These data should include those inspections conducted by the City (regardless of whether there are compliance issues at the site), not just those performed by the District. Currently there is no way of accurately tracking or portraying this information in the City of Fresno. The City is required to develop some form of reliable tracking system to track construction stormwater inspections performed on private development projects by the Building Department and Public Works Department.
- *The City is not conducting adequate construction inspections ensure compliance with NPDES permits and the SWQMP.*

According to Provision D.12 of the MS4 permit, the City is required to use its enforcement authorities to ensure compliance with the construction NPDES permits for discharges within the area subject to this permit. Based on the projects visited during the MS4 audit, it was apparent that private construction inspectors (Building and Public Works) do not adequately inspect construction sites for proper erosion and sediment control implementation and maintenance. Subdivisions that were visited, such as the Summerville subdivision, were observed with no perimeter controls in place, stockpiles of soil are stored without adequate protection, the streets were tracked with mud and debris, litter was not being managed properly and in general the private projects visited were not in compliance with minimum erosion and sediment control standards.

According to staff interviewed, the City Building inspectors do not regularly inspect construction sites for compliance with NPDES-permitted BMPs. The sites are only inspected if the inspectors are called out to perform a building-related inspection (e.g., electrical, plumbing). Public Works inspectors are at sites on a more regular basis, but they are only charged with inspection of the City's right-of-way and the streets. In addition, the emphasis of the construction site inspection program appears to be on sediment control rather than more proactive erosion control. The primary focus appeared to be removing sediment from the City streets to minimize public complaints. The City needs to institute a program to inspect construction sites for erosion and sediment control and ensure proactive compliance on a regular basis, including, at a minimum, before and after rain events for maximum effectiveness of BMPs.

- *The City staff was unaware of the existing enforcement escalation procedures and should develop specific enforcement response procedures for construction sites.* Although Section 4 of the Fresno-Clovis SWQMP describes general procedures for enforcement escalation, City staff was unaware of the existing enforcement escalation corrective actions. The City should develop a specific enforcement response plan to address occurrences of non-compliance on construction sites. According to Building Department staff interviewed, if verbal warnings do not result in compliance, the project is referred to the District for assistance. The Public Works Department has an unofficial response plan that includes an initial verbal warning, followed by two written notices, and finally notification of the District. This plan is not an official enforcement escalation response plan, but is the one currently being used informally by the Public Works inspector. As stated previously, it is the City's responsibility to enforce the construction requirements of the MS4 permit and SWQMP; such a plan would ensure a defensible and consistent approach to future enforcement activities and would ensure consistency. The Building and Public Works Departments need to strengthen the enforcement process by developing a formal enforcement escalation plan specific for construction oversight.
- *The City should consider using a dedicated NPDES inspector for all construction projects disturbing more than 1 acre.* The City is using inspectors from two different departments to ensure compliance with erosion and sediment controls. The inspectors have multiple responsibilities, one

of which is ESC issues. This approach can lead to placing less emphasis on ESC compliance when other issues, such as inspecting road or building construction for compliance with standards, take more time. While it is recommended that all inspectors working on construction sites be trained in erosion and sediment control enforcement to maximize compliance, the City should consider using a dedicated ESC inspector who would be responsible for inspecting all active construction sites. This inspector's responsibility would be to ensure compliance with ESCs and pollution prevention practices and to build relationships with local contractors. Using dedicated erosion and sediment control inspectors has worked successfully for a number of other cities, including Santa Rosa and Oxnard, California.

2.3 City of Clovis

2.3.1 Evaluation of Program Management and Effectiveness

Positive Attribute:

- *The City actively engages with the co-permittees in addition to federal, state, regional, and local agencies.*

The City coordinates a Public Involvement and Education Committee, a Construction and Development Committee, and a Program Coordinating Committee. The committees were developed to address SWQMP implementation efforts within the permitted jurisdiction. National, state, regional, and local agencies participate in the meetings. The City also coordinates with local agencies that include, but are not limited to, the San Joaquin Air Pollution Control District, Fresno Area Pollution Prevention Group, Water Awareness Committee, and Earth Day Committee. The primary purpose of coordinating with these agencies is to develop and incorporate a clear and consistent message associated with stormwater quality and available water resources.

Deficiencies Noted:

- *The City should clearly define roles and responsibilities for staff at all levels within the City.*

The District serves as the lead agency for program management and SWQMP implementation. Therefore, the City relies on the District to provide extensive program coordination to ensure requirements of the Permit are being met within its jurisdiction. Although Section 6 of the SWQMP describes roles and responsibilities for the permitted metropolitan area, the City should develop its own City-specific program coordination organizational structure. To effectively address program implementation, the City should develop more formalized and descriptive roles and responsibilities for its stormwater staff. Identifying roles and responsibilities will help establish a thorough understanding of permit requirements and program goals for all staff involved with direct implementation of the SWQMP.

- *The City should be accountable for the management and tracking of BMPs identified in the SWQMP.*

During the audit, the evaluation team recognized the District as the lead agency for administering the implementation of the SWQMP. Details about the coordination between the City of Clovis and the District are documented in the *Memorandum of Understanding (MOU) National Pollution Discharge Elimination System Municipal Stormwater Permit Implementation*, dated July 16, 1996. Although the MOU places more responsibility on the District in the implementation of BMPs, it is recommended that the City participate more in BMP implementation. During in-office evaluations, the level of participation by the City in BMP implementation was unclear. Furthermore, it is the responsibility of the City to ensure Permit compliance. In an effort to ensure permit compliance, the City should be accountable for tracking BMPs, managing the implementation of city-specific BMPs, and increased communication and follow-through regarding enforcement actions. Additional involvement by the City will likely provide for more effective implementation in the future.

2.3.2 Evaluation of Public Involvement and Education Program

The District is required in the current SWQMP—as well as the MOU—to perform the majority of the public involvement and education BMPs.

2.3.3 Evaluation of Illicit Discharge Program

The District is required in the current SWQMP—as well as the MOU—to perform the majority of the illicit discharge BMPs.

2.3.4 Evaluation of Industrial and Commercial Program

Deficiency Noted:

- *The City should develop a formalized inspection process to ensure greater consistency and more effective inspections.*

An informal agreement exists between the City, the District, and Fresno County's CUPA with the understanding that the City's industrial inspections will be conducted by the CUPA inspectors. The arrangement enables the co-permittees to maximize resources and reduce the number of individual inspections of industrial facilities. During the field inspection, the evaluation team observed that written procedures and/or standards did not exist for industrial inspectors. Furthermore, there was no formal checklist being used by the City inspector that specifically addressed stormwater. The City should use the existing industrial checklist developed by the District.

Provision 21 of the Permit requires the City to ensure compliance with the Industrial General Permit, city ordinances, and additional components of the SWQMP. Although inspections occur, it is recommended that the City formalize and document their procedures and/or standards; the City should also update the CUPA checklist to include stormwater issues. These forms of documentation will ensure that the industrial stormwater inspectors are addressing all concerns of the Industrial General Permit and city ordinances. The checklist will also create a paper trail for the purpose of effectively completing future inspections and tracking potential violations or enforcement actions.

2.3.5 Evaluation of Operation and Maintenance Program

Deficiency Noted:

- *The City lacked a formalized mechanism to track storm drain inlet stenciling activities.*

During in-office evaluations, the evaluation team observed no formalized mechanism to track storm drain inlet stenciling conducted by the City. Although the City uses the Association of Retarded Citizens (ARC) group to assist in the labeling effort, it was unclear as to how many storm drains were labeled throughout the year. BMP PIE-1, Section 2 of the SWQMP states that the permittees will “continue to stencil and re-stencil storm drain inlets throughout the permit area. Promotion of the stenciling program will be done throughout the PIE program.” Although stenciling is an identified BMP in the SWQMP for implementation, the SWQMP fails to address the tracking of these activities. A mechanism should be developed to track stenciling activities conducted by the City.

2.3.6 Evaluation of Construction and Development Program

Permit Violation:

- *A City CIP Project did not develop a SWPPP or submit an NOI for coverage under the State’s Construction General Stormwater Permit.*

Provision 21 of the Permit requires the City to ensure compliance with the construction General Permit, City ordinances and additional components of the SWQMP. The evaluation team observed a capital improvement project (CIP) disturbing more than 1 acre of land where the contractor had not submitted an NOI to the SWRCB and had not developed a site-specific SWPPP. According to BMP DEV-1, the permittees are to “review and revise the construction site guidelines as necessary to comply with Phase II requirements for public and private developments that cause a land disturbance of one acre or more.” The City is responsible for revising the construction site guidelines as well as setting an example for future projects requiring compliance with the construction stormwater General Permit.

Also, City design and plan review staff lack a checklist to identify whether contractors or developers are adequately addressing stormwater requirements in their plans. It is recommended that the City develop a checklist for design and plan review staff to ensure that stormwater requirements are fully addressed before project approval.

Deficiency noted:

- *The City should develop and institute stormwater training specifically designed for construction site inspectors.*

The City employs one dedicated stormwater compliance inspector for private developments, twelve building inspectors for private developments, and four CIP inspectors for public projects. Each inspector attends training presented by the District and uses a checklist and/or a set of standard procedures for applicable sites.

However, the evaluation team recognized a lack of understanding about inspection procedures. For example, the CIP inspector was confused about the frequency of completing the stormwater checklist provided by the City. It is recommended that the City augment the District's training module to encompass construction inspection procedures, enforcement escalation procedures, and materials used during a routine inspection. This training should assist the City and its inspectors to fully address the multitude of potential stormwater violations at a construction site.