

Program Evaluation Report

City of Napa Stormwater Management Program

1.0 Introduction

1.1 Program Evaluation Purpose

The purpose of the program evaluation was to determine the City's compliance with its National Pollutant Discharge Elimination System (NPDES) permit (CAS 000004) and to determine the City's overall success in implementing its Stormwater Program (Program). 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.
- Identify program areas for further review by the Regional Board.

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

1.2 Permit History

The NPDES stormwater Phase II small MS4 general permit was issued on April 30, 2003, and expires on April 30, 2008. The City of Napa submitted a complete application for coverage under the general permit on March 10, 2003 and received permit coverage on May 20, 2004.

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. CAS 000004
- 03-04 City of Napa Annual Report
- City of Napa Stormwater Management Plan (December 2003)
- City Web site

On June 21–22, 2005, Tetra Tech, Inc., with assistance from the Regional Board, conducted the program evaluation. The evaluation schedule was as follows:

Tuesday, June 21	Wednesday, June 22
• Program evaluation kickoff meeting • Program Management • Public Education and Public Involvement • Municipal Operations (office and field) • Illicit Discharge Detection and Elimination	• Construction (office and field) • Post-Construction • Program evaluation outbrief meeting

Upon completion of the evaluation, an outbrief was held to discuss the preliminary findings. During the outbrief, the attendees were informed that the findings were to be considered preliminary pending further review by EPA and the Regional Board.

1.4 Program Areas Evaluated

The following program areas were evaluated:

- Program Management
- Public Education/Public Involvement
- Illicit Discharge Detection and Elimination
- Construction
- Post-Construction
- Municipal Operations

1.5 Program Areas Not Evaluated

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

- Wet-weather monitoring program and monitoring program details (e.g., sampling location, types, frequency, parameters).
- Other NPDES permits issued to the City (e.g., industrial or construction NPDES stormwater permits).
- Inspection reports, plan review reports, and other relevant files. The program evaluation team did not conduct a detailed file review to verify that all elements of the Program were being implemented as described. Instead, observations by the evaluation team and statements from City representatives were used to assess overall compliance with permit requirements. A detailed file review of specific program areas could be included in a subsequent evaluation.

2.0 Program Evaluation Results

This program evaluation report identifies program deficiencies and positive attributes. This report is not a formal finding of violation. **Program deficiencies** are areas of concern for successful program implementation. Positive attributes indicate the City's overall progress in implementing the Program. The evaluation team identified only positive attributes that were

innovative and exceptional (beyond minimum requirements). Some areas were found to be simply adequate; that is, not particularly deficient or innovative.

The evaluation team *did not* evaluate all components of the City's Program. Therefore, the City should not consider the enclosed list of program deficiencies a *comprehensive* evaluation of individual program elements.

For discussion and tracking purposes, each deficiency is separately numbered.

2.1 Evaluation of Program Management

Positive Attribute:

- *The City has a clear organizational structure with a dedicated program leader for stormwater.*

Activities under each of the minimum control measures, though implemented by different departments and jurisdictions, are overseen by a single department with one individual responsible for assembling the annual report and helping to ensure compliance with each requirement in the SWMP.

Deficiencies Noted:

- *No. 1: The City should more clearly define stormwater-related roles of all staff involved with implementation of the SWMP.*

The general permit requires that the SWMP identify the person or persons who will implement each minimum control measure. The City should assign a staff person/job position to each task in the SWMP and document this division of labor in a flow chart or as part of the SWMP. This will allow the City to ensure that all tasks are being addressed and can facilitate reassignment of tasks in the event of position vacancies and employee vacations.

- *No. 2: The City should hold regular staff meetings dedicated to stormwater program issues.*

The City's stormwater program lead should schedule meetings on a regular basis with staff involved in implementing elements of the stormwater program. These meetings can be a forum for discussing each department's progress toward implementing the SWMP and any issues they have encountered. The meetings will allow the stormwater program lead to reiterate the stormwater-related roles of each department and staff member so that important activities are not overlooked. Finally, the meetings can provide opportunities for staff training and allow the stormwater program lead to update staff on new policies and Citywide and regional stormwater initiatives.

- *No. 3: The City should develop a specific plan to evaluate the effectiveness of its stormwater program.*

The City should develop a specific plan to evaluate the effectiveness of its stormwater program. The current annual report summarizes past activities but does not provide detailed analysis evaluating those activities. The City 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 to improve the Program. Ultimately, this evaluation will help the City to improve implementation of the Program and help document water quality improvements.

For additional information on program effectiveness, the City should review the presentations from the November 14, 2003, meeting of the California Storm Water Quality Association. That meeting focused on MS4 program effectiveness and how MS4s can document such effectiveness. The presentation materials are available at <http://www.casqa.org/meetings/presentations.html>. 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 report is available at http://www.projectcleanwater.org/pdf/copermittees/assessment_framework_final.pdf

2.2 Evaluation of Public Education and Outreach/Public Involvement and Participation

Positive Attributes:

- *The City works well with environmental groups to accomplish outreach goals.*
The City has partnered with several local environmental groups to provide education on environmental issues. These types of partnerships assist the City by providing motivated volunteers who can help to spread environmental messages and provide opportunities for public participation in stewardship activities.
- *The City has a strong waste reduction program, including e-waste collection, a materials exchange network, and a recent contract with a new trash hauler that includes performance incentives for waste reduction.*
The City provides convenient services for residents that can help to reduce illegal dumping and encourage recycling. The recent change in trash hauling companies provided an opportunity to include incentives for environmentally friendly practices in the new contract, which now includes performance incentives that reward the company when more wastes are diverted for recycling rather than landfills. The City conveniently advertises its recycling and waste reduction programs in a full-color insert in the local telephone book.

Deficiencies Noted:

- *No. 4: The City should develop an education campaign that addresses general stormwater knowledge by specific, targeted groups.*
Many of the public education events the City and County have sponsored have focused on general water quality rather than stormwater specifically. The City and County should develop messages for residents and businesses on the nature of stormwater pollution and how they can change their behaviors to reduce their contribution of pollutants. Information on developing an education strategy can be found in the EPA guidance document “Getting In Step: A Guide for Conducting Watershed Outreach Campaigns” available at <http://www.epa.gov/owow/watershed/outreach/documents>.

In addition, a number of stormwater programs in the Bay area have developed stormwater-specific outreach brochures for various activities. Links to several example outreach brochures are provided below:

http://www.cleanwaterprogram.org/publications_libraryResources.htm
http://www.cccleanwater.org/businesses/prevent_pollution/index.php
<http://www.sactostormwater.org/documents.asp>

- *No. 5: The City has not yet developed a stormwater Web site because the City's participation in a watershed information center is pending.*
 The watershed information center (www.napawatersheds.org) might be too complicated to be fully accessible to the general public. The City should investigate developing a relatively simple Web page that describes stormwater issues in general and outlines the City's responsibilities and activities pertaining to the stormwater management program.

2.3 Evaluation of Illicit Discharge Detection and Elimination (IDDE)

Deficiencies Noted:

- *No. 6: The City should expand the IDDE program to be more proactive rather than being a complaint-driven program.*
 The City's IDDE program is still being developed. At this time, a public report of an incident is routed to City and County stormwater staff and a form is filled out indicating the date, location, and nature of the incident. Some reports had been investigated and followed up on, whereas others had not. The City has not undertaken a proactive approach to identifying and eliminating illicit discharges—all activities are complaint-driven. The General Permit requires the City to develop a plan to "detect and address" non-stormwater discharges. The City should expand its IDDE program to actively seek out illicit discharges and illegal dumping, especially by continually training City staff (e.g., public works, police) to look for evidence of spills and dumping and to know to whom incidents should be reported. The City should also develop a system to track the status of incident investigations that clearly indicates which have been followed up on and concluded and which are still pending. At this time the filing system for incident reports is informal and incidents are not logged in a database or spreadsheet.
- *No. 7: The City should continue to work with Napa County inspectors to ensure that referrals regarding violators are being made and are followed up.*
 The City's business inspection program, which is being implemented by County Environmental Management staff, is still in an education stage in that enforcement is not being taken when problems are found. Once the City and County transition to an enforcement-based inspection program, it is essential that timely referrals are made to the City's stormwater program lead to ensure that actual and potential illicit discharges are investigated and eliminated in an efficient manner. Because the program is relatively new, the City and County should develop a set of formalized procedures that will help to ensure that all elements of the inspection program are being implemented as intended to meet the requirements set forth in the SWMP.

2.4 Evaluation of Construction Site Runoff Control

Deficiencies Noted:

- *No. 8: The City's inspector does not have code enforcement authority.*
 The City's construction inspector does not have the authority to issue citations to construction site operators when violations are found at construction sites. The current process for escalating enforcement involves calling a code enforcement officer, which is time-consuming and prevents immediate action in the case of an actual or potential illicit discharge. The inspector can issue stop work orders but is reluctant to do so. The City must develop a protocol that clearly defines the enforcement actions that should be taken by the inspector to ensure compliance. The City should evaluate this protocol periodically to ensure that it adequately prevents and remedies illicit discharges from construction activities.
- *No. 9: The City should transition its construction inspection program from an education-based program to a compliance/enforcement-based program with penalties for stormwater violators.*
 The City's construction inspector has been focusing on education of construction site operators and has not transitioned into enforcement of the City's stormwater ordinance when violations are found. The City is responsible for preventing illicit discharges from construction activities, and enforcement of violators is a key aspect of construction inspection programs. The City must develop a detailed inspection protocol that includes both education and enforcement when necessary, and the City must ensure that inspectors are following the protocol when inspecting sites before the rainy season and during or after rain events.
- *No. 10: The City should develop a method for compiling the list of construction sites to be inspected to ensure that sites in all stages of construction are being inspected at the frequency documented in the SWMP.*
 Presently the City uses the Water Department's logging system to compile a list of sites to be inspected, but this method has a potential to ignore sites that no longer require water department inspections but could still pose a threat to water quality, such as sites in the building stage where final stabilization has not yet been achieved. An option would be to work with the department responsible for building inspections to ensure that stormwater inspections are conducted at all active construction sites within the City.
- *No. 11: The City should identify the highest-priority sites to inspect at a higher frequency based on pollution potential and other factors that the City deems appropriate.*
 At this time the City inspects each local construction site once per year prior to the rainy season, with additional informal inspections occurring within 48 hours of a half-inch rain event. The City should prioritize its construction sites for these additional inspections based on their size, proximity to sensitive waters, history of noncompliance, or other factors that would increase the site's threat to water quality. This prioritization would allow the City to better allocate resources to address storm water quality problems from construction activity.

2.5 Evaluation of Post-Construction Stormwater Management in New Development and Redevelopment

Positive Attribute:

- *The City's plan review staff uses technical references produced by other regional jurisdictions.*
The City is taking advantage of technical resources and references developed by Phase I communities in the Bay area and other local organizations. This will help the City develop standards and protocols for plan review and approval that have been tested and accepted locally and reduces the burden for City staff to develop new materials and protocols.

Deficiencies Noted:

- *No. 12: The City should develop a protocol for inspection and sign-off of newly installed stormwater management practices.*
The City will soon be responsible for signing off on post-construction stormwater controls that may be designed differently (i.e., innovative, landscaped controls) than City engineers are accustomed to. The City must develop a protocol and implement training for engineers involved in as-built inspections to ensure that stormwater management practices are installed and functioning as intended.
- *No. 13: The City should provide ongoing training and guidance for plan reviewers to ensure that regulations and requirements are being applied consistently.*
As the plan review and approval program develops, plan reviewers should meet periodically to discuss projects being reviewed to ensure that requirements are being interpreted consistently and to share any issues that may be encountered at difficult sites. These meetings will promote consistency in how stormwater requirements are applied from one site to the next.
- *No. 14: The City should develop post-construction design standards.*
The general permit requires the City to use an ordinance to address post-construction runoff. The City of Napa is also subject to Attachment 4 in the general permit which specifies post-construction design standards. The City should review relevant post-construction standards developed by other cities and adopt a post-construction design standard that best fits the type of development in Napa. Three example post-construction standards are listed below:
 - The "C.3" requirements developed in Contra Costa County (and other county programs in the Bay area)
<http://www.cccleanwater.org/construction/nd.php>
 - Attachment 4 of the Phase II General Permit
http://www.waterboards.ca.gov/stormwtr/docs/final_attachment4.pdf
 - The Standard Urban Stormwater Mitigation Plan (SUSMP) requirements developed in Los Angeles County
<http://www.lastormwater.org/WPD/businesses/susmp/susmpintro.htm>

- *No. 15: The City should develop a program for tracking maintenance of post-construction BMPs.*

The City is required to “ensure adequate long-term operation and maintenance of BMPs.” The City should evaluate different options for ensuring that maintenance of post-construction BMPs is being performed, which at a minimum would include developing a spreadsheet or database to track the location, design specifications, and maintenance requirements of each new practice. Additionally, the City could conduct periodic inspections of facilities or require that the property owner submit proof of maintenance to the City.

2.6 Evaluation of Pollution Prevention/Good Housekeeping for Municipal Operations

Positive Attributes:

- *The City cleans catch basins identified as “hot spots” more frequently.*
The City is in the process of developing a comprehensive catch basin map, but at this time catch basins are cleaned on a rotational basis according to a regular schedule. Catch basins that are considered problematic, because of flooding or high accumulation of pollutants, are inspected and cleaned more frequently. A list of these “hot spots” is updated periodically as needed.
- *The municipal corporation yard had several covered areas where potentially polluting areas were isolated from rainfall and runoff, including a covered vehicle wash area.*
Most of the City’s mechanical equipment was stored under large roofed areas, and work areas were also protected from the rain. Items stored outdoors included materials that were not likely to contribute pollutants to the storm drain system.

Deficiencies Noted:

- *No. 16: The City should conduct regular site inspections of the municipal corporation yard to identify and resolve poor housekeeping issues and to reinforce stormwater requirements to staff using the site.*
There were several areas where used paint cans were stored improperly, typically behind storage sheds out of sight of the main work areas. A periodic, thorough inspection of the site would identify such housekeeping problems and allow them to be remedied in a timely manner.
- *No. 17: The City should resolve dewatering drainage issues around the washout area.*
Materials from street sweeping vehicles are deposited onto the ground and allowed to drain/dry in a bermed area. Poor drainage from this area results in standing water, which could pose a vector control problem. The site manager said that the area was being considered for redesign to alleviate the standing water problem.
- *No. 18: Because of the size and extent of the activities occurring at the municipal corporation yard, the City should develop a stormwater pollution prevention plan (SWPPP) or similar document to be implemented at the site.*

Numerous City staff work at or visit the site regularly and all should be trained about stormwater pollution prevention practices, including spill response and control, proper storage of materials, vehicle maintenance and washing practices, and other topics. A SWPPP would describe such practices to be implemented at the site and would prescribe a training program for staff.