

**CITY OF STOCKTON  
NATIONAL POLLUTANT DISCHARGE  
ELIMINATION SYSTEM  
MUNICIPAL STORMWATER PROGRAM**

**2003 - 2004 ANNUAL REPORT**



**STORMWATER**  
**Pollution Prevention**  
SAN JOAQUIN COUNTY • CITY OF STOCKTON

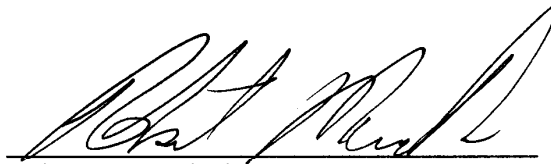


CERTIFICATION

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations.

Executed on the 16<sup>th</sup> of September, 2004, at 3:15 pm.



Robert K. Murdoch, P.E.  
Assistant Director of Municipal Utilities

**CITY OF STOCKTON  
STORMWATER MANAGEMENT PROGRAM  
2003/04 ANNUAL REPORT  
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## **1.0 – Program Management**

### **1.1 Overview**

The Stormwater Management Plan (SWMP) has been developed for and is implemented within the jurisdictional limits of the City of Stockton and the urbanized areas of San Joaquin County. The SWMP represents the five year strategy for controlling the discharge of pollutants from the municipal storm drain system to the maximum extent practicable (MEP). The overall goal of the program is to reduce the degradation, by urban runoff, of the beneficial uses of natural resources of the metropolitan area of Stockton. These natural resources include the San Joaquin River and tributary streams and a regional groundwater aquifer.

As a result of the second term municipal stormwater permit requirements, the SWMP was revised in September 2003. The SWMP proposes a wide range of continuing and enhanced Best Management Practices (BMPs) and control measures which will be implemented over the period covered by the permit (2002-2007). These control measures will assist the City in improving the overall effectiveness of the stormwater program and focus on the specific activities. Where possible, control measures were developed to address specific pollutants of concern or sources to enhance pollution reduction and provide increased environmental benefit.

The City has developed a comprehensive approach for managing the development and implementation of the stormwater program within the Stockton Urbanized Area. As a part of this effort, the City coordinates the program management activities internally as well as with the City (Section 1 of the SWMP). Additional information is included within each of the Program Control Measures.

### **1.2 Control Measures**

The City has developed several Control Measures to ensure that the program management requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Program Management Control Measures consist of the following:

<b>Control Measure</b>
Co-Permittee Program Coordination
Internal Program Coordination
Fiscal Analysis Reporting
Legal Authority Review

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Program Management Performance Standards and implementation schedules.

### 1.3 Co-Permittee Program Coordination

The implementation of the stormwater management program requires a coordinated management effort by the City and County. While named as co-permittees to the permit, the City and County have separate programs and submit documents and reports separately to the Board. However, since the programs are very similar, the City and County collaborate with one other to address common issues and to ensure consistency in program development and implementation.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 1.3.1 Performance Standard – Co-Permittee Meetings

To facilitate the ongoing communication and coordination between the two agencies, co-permittee meetings are held on an on-going basis.

- a) Did the City and County meet, at a minimum, once per quarter?

Yes  No

- b) If **yes**, a summary of the meetings that were held is provided below

Type of Meeting	Meeting Date	City Department Participating	County Department Participating
Progress Meeting	7/11/03	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	8/12/03	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	10/24/03	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	1/15/04	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	2/6/04	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	3/5/04	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	3/12/04	City of Stockton MUD	County of San Joaquin Stormwater
Progress Meeting	4/16/04	City of Stockton MUD	County of San Joaquin Stormwater

1.3.2 Performance Standard – Review and Revise the MOU (as necessary)

In 1995 the City of Stockton and County of San Joaquin entered into a Memorandum of Understanding (MOU) for filing as co-permittees under one NPDES permit as well as the development of a receiving waters monitoring program. The MOU also provides a mechanism for the City and County to continue to work cooperatively on the development and implementation of additional NPDES programs such as the Public Education and Outreach program.

The City and County will review their existing MOU to ensure that it provides for a designation of joint responsibilities, decision making, information management of data and reports and any other collaborative arrangements that are necessary in order to comply with the NPDES Permit.

- a) Did the City and County review the MOU to determine if any changes are necessary? *(to be completed by June 30, 2005)*

Yes  No

If **no**, explain

Both City and County have complied with the requirements of existing MOU. We do not anticipate any changes to this MOU. However, it is scheduled to be reviewed prior to June 30, 2005. If necessary, the appropriate changes will be made.

- b) If **yes**, did the City and County revise the MOU? *(to be completed by June 30, 2005)*

Yes  No

See comment above in a).

1.3.3 Performance Standard – Establish, Review and Revise Cooperative Agreements (as necessary)

To help control the contribution of pollutants from one portion of the stormwater system to another, the City may participate in cooperative agreements with other agencies as the need or opportunity arises. Currently the City is not participating in any cooperative agreements.

- a) Did the City establish, review or revise any cooperative agreements?

Yes  No

If **no**, explain

Currently the City does not participate in any cooperative agreements.

## 1.4 Internal Program Coordination

The City's Municipal Utilities Department (MUD) Stormwater Management Division has primary responsibility for the development and implementation of the SWMP. Although administered and principally staffed by MUD the implementation of the SWMP requires the assistance of and close coordination with several other City departments and divisions including the following:

MUD Contract Maintenance Division  
 Community Development Department  
 Public Works Maintenance Division  
 Public Works Engineering Division  
 Parks and Recreation Division  
 City Attorney

The City Divisions and Departments that have primary and secondary responsibilities for the implementation of the Stormwater Program have been identified and are shown in the table below.

The designated stormwater program manager/staff who oversee the implementation of the SWMP and the day to day operations is listed below.

	<b>Primary Stormwater Program Contact</b>
Name	<b>Robert K. Murdoch, P.E.</b>
Title	<b>Assistant Director</b>
Department/Division	<b>Municipal Utilities/Storm Water</b>
Address	<b>2500 Navy Drive, Stockton, CA 95206</b>
Phone Number	<b>(209) 937-8734</b>
E-mail Address	<b>Bob.Murdoch@ci.stockton.ca.us</b>

	<b>Alternate Stormwater Program Contact (Optional)</b>
Name	<b>Amin Kazemi, P.E.</b>
Title	<b>Associate Civil Engineer</b>
Department/Division	<b>Municipal Utilities/Storm Water</b>
Address	<b>2500 Navy Drive, Stockton, CA 95206</b>
Phone Number	<b>(209) 937-8716</b>
E-mail Address	<b>Amin.kazemi@ci.stockton.ca.us</b>

City Departments and Divisions Responsible for Implementing the Stormwater Program

	Illicit Discharge Detection & Elimination	Public Outreach & Education	Municipal Operations	Industrial/Commercial Facilities	Construction	Planning & Land Development	Water Quality Control Plans
<b>MUD Stormwater Management Division</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
<b>MUD Contract Maintenance Division</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>			
<b>Community Development Dept.</b>	<b>S</b>	<b>S</b>			<b>S</b>	<b>P</b>	
<b>Public Works Maintenance Division</b>	<b>S</b>	<b>S</b>	<b>S</b>			<b>S</b>	
<b>Public Works Engineering Division</b>	<b>S</b>	<b>S</b>	<b>S</b>		<b>S</b>	<b>S</b>	
<b>Parks and Recreation Division</b>	<b>S</b>	<b>S</b>	<b>S</b>			<b>S</b>	
<b>City Attorney</b>	<b>S</b>		<b>S</b>	<b>S</b>	<b>S</b>	<b>S</b>	

P – Primary responsibility, S – Provides support to primary department or division

### 1.5 Fiscal Analysis

The Fiscal Analysis includes the following:

- The expenditures for the previous fiscal year;
- The budget for the current fiscal year; and
- A description of the source of funds.

The City reviewed the fiscal analysis reporting format and determined that the format should be revised so that the expenditures are reported by SWMP program element. Although the revised reporting format may need to be refined over the next couple of years, the format is presented within this annual report.



a) The fiscal analysis for the stormwater program is provided below

<b>Program Element</b>	<b>Expenditures During Fiscal Year 2003-2004</b>	<b>Estimated Budget for Fiscal Year 2004-2005</b>
<b>Program Management</b>	\$179,253.00	\$239,511.00
<b>SWMP Development</b>	\$285,442.00	\$228,377.00
<b>Illicit Discharge/Illegal Connections</b>	\$37,088.00	\$30,806.00
<b>Public Outreach and Education</b>	\$123,176.00	\$145,433.00
<b>Municipal Operations</b>		
Corporation Yard	\$9,687.00	\$7,496.00
Treatment BMP Maintenance	0.00	0.00
Landscape and Pest Management	\$84,212.00	\$60,701.00
Storm Drain System Maintenance (including catch basin cleaning)	\$739,972.00	\$1,095,516.00
Street Cleaning and Maintenance	\$937,753.00	\$805,200.00
Solid Waste Collection	\$288,747.00	\$247,900.00
<b>Industrial and Commercial Businesses</b>		
	\$72,360.00	\$103,843.00
<b>Construction</b>	\$11,676.00	\$23,500.00
<b>Planning and Land Development</b>	\$11,676.00	\$23,500.00
<b>Capital Improvement Projects</b>	\$0.00	\$0.00
<b>Water Quality Based Programs</b>		
DO, Pesticide, and Pathogen Work Plans	\$81,229.00	\$16,387.00
DO, Pesticide, and Pathogen Plans Implementation	0.00	\$190,000.00
<b>Monitoring Program</b>		
Baseline Program	\$237,334.00	\$252,189.00
Smith Canal Monitoring Program	\$10,054.00	\$87,242.00
Bioassessment	\$34,328.00	\$21,688.00
Detention Basin Monitoring	\$14,961.00	\$16,500.00
<b>Training</b>	\$42,100.00	\$49,238.00
<b>Other Services</b>	\$192,740.00	\$200,000.00
<b>Other Expenses</b>	\$397,354.00	\$320,560.00
<b>TOTAL</b>	<b>\$3,791,142.00</b>	<b>\$4,165,587.00</b>

Enter "U" if the information is unavailable

The costs provided should include 1) in-house and contracted Operations/Maintenance Costs and 2) Capital Costs

- b) Any supplemental budgets that the City has for the same categories as the table above are summarized below:

Category	Type of Supplemental Budget	Supplemental Budget (Amount)
Household Hazardous Waste	County Service Area No. 53 Regional Program	\$314,224.00

\* Examples include state and/or federally funded stormwater related projects and budgets for other programs that provide ancillary benefits to the stormwater program such as the household hazardous waste collection center.

- c) The City funding sources are summarized below:

	Funding Source(s)	
	Fiscal Year 2003-2004 Provide in %	Estimated for Fiscal Year 2004-2005 Provide in %
General Fund	0	0
Storm Drain User Fee	100	100
Special District Fund	0	0
Others (Describe)		

If a storm drain maintenance or user fee is utilized, identify the fee/equivalent residential unit: \$2.10/month per Equivalent Residential Unit.

## 1.6 Legal Authority

The permit requires that the City implement a stormwater management program to reduce the pollutants in stormwater discharges to the “maximum extent practicable”. Central to this program is the establishment and/or verification that the City has adequate legal authority to regulate the discharge of pollutants to the MS4.

In 1995 the City enacted a Stormwater Management and Discharge Control Ordinance No. 013-95 (Chapter 7, Part VIII, Section 7-800 to 7-860.2 and 13-500 to 13-513) to specifically control stormwater runoff quality. This ordinance both complements and supplements the existing ordinances and established uniform requirements for protecting and enhancing the water quality of their watercourses, water bodies and wetlands in a manner consistent with the Clean Water Act.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

### 1.6.1 Performance Standard – Review/Revise the Legal Authority (as needed)

Due to the current legal authority that the City already has, the City Attorney provided a certified statement of legal authority as Appendix A-3 of the SWMP. The certified statement recognizes that the City has adequate legal authority to implement and enforce each of the permit requirements. In addition, the certified statement recognizes the fact that the City Attorney will

need to conduct another review of the City's legal authorities once the City's SWMP and Development Standards have been approved by the Regional Board. If it is determined that additional legal requirements are necessary, additional amendments or Ordinances will then be developed and adopted.

- a) Did the Regional Board approve the City's Development Standards and SWMP?

Yes  No

If **no**, explain

The Stormwater Management Plan was submitted to the Regional Board in September 2003. The Board staff provided comments on the SWMP and the City incorporated these comments and submitted a revised SWMP to the Board on May 28, 2004. The SWMP is currently in the public review period.

The City submitted in December 2003 the proposed Development Standards for post construction BMPs to the Regional Board. To date the Board has not completed its review of the Development Standards.

- b) If **yes**, did the City review and/or revise any legal authorities in order to implement and enforce the stormwater permit requirements?

Yes  No

If **no**, explain

The existing legal authorities and stormwater ordinances are adequate to implement and enforce the stormwater permit requirements. Once the SWMP and Development Standards are approved by the Regional Board, the City will review its stormwater ordinance to include any necessary changes.

## 1.7 Program Management Modifications

The City evaluates the results of the annual progress report as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the Program Management Element during the next fiscal year include the following:

- The stormwater ordinance will be reviewed and modified as necessary.
- Refer to the Annual Work Plan that was submitted to the Board on April 1, 2004.

## **2.0 – Illicit Discharges Program Element**

### **2.1 Overview**

An illicit discharge is any discharge to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term “illicit discharge” includes all non storm-water discharges except discharges pursuant to an NPDES permit, discharges that are identified within the Discharge Prohibitions section of the NPDES permit, and discharges authorized by the Regional Board. A subset of illicit discharges is illegal connections which are defined as an illegal and/or improper connection to a storm drain system or receiving water.

Since illicit discharges and illegal connections can be a significant source of pollutants to the storm drain system, the City has developed a comprehensive program for detecting, responding to, investigating, and eliminating these types of connections/discharges in an efficient and effective manner (Section 2 of the SWMP). Additional information is included within each of the Program Control Measures.

### **2.2 Control Measures**

The City has developed several Control Measures to ensure that the illicit discharge related permit requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Illicit Discharges Program Control Measures consist of the following:

<b>ID</b>	<b>Control Measure</b>
ID1	Detection of Illicit Discharges and Illegal Connections
ID2	Elimination of Illegal Connections
ID3	Investigation and Clean Up of Illicit Discharges

In addition to the Control Measures listed above, a number of the activities conducted pursuant to the other program element requirements such as the Public Outreach and Education Program (Section 3), Municipal Operations (Section 4), Construction (Section 6), Planning and Land Development Program (Section 7) and Training Program (Section 10) also support and provide guidance for the Illicit Discharges Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Illicit Discharges Program Performance Standards and implementation schedules.

### 2.3 ID1 Detection of Illicit Discharges and Illegal Connections

The Illicit Discharges program uses public reporting, dry weather monitoring, and field crew inspections as the primary means for detecting illicit discharges and illegal connections.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 2.3.1 Performance Standard – Facilitate Reporting of Illicit Discharges

The City has established a 24-hour hotline to encourage the public to report water pollution problems. During business hours the line is answered by City personnel, after hours the calls are transferred to another department and/or an emergency line.

- a) Did the City maintain the 24-hour hotline throughout the year?

Yes  No

The phone number is: (209) 937-8341

- b) Did the City facilitate the reporting of illicit discharges by advertising the hotline:

In the public/business education materials	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
On the City website ( <a href="http://www.stocktongov.com">www.stocktongov.com</a> )	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
In the telephone book – gov pages	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Other: <u>All Printed Material</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

#### 2.3.2 Performance Standard – Continue to Coordinate with Other Departments and Agencies

In order to ensure that other departments/agencies understand how to route and respond to water pollution complaints, the City coordinates with them.

- a) Did the City continue to coordinate with other departments and agencies throughout the year?

Yes  No

- b) Did the City coordinate with other City departments by:

Advertising the hotline number internally	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Conducting internal meetings/training	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Providing telephone numbers/flow charts	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Other: <u>All Printed Material</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

c) Did the City coordinate with other agencies by:

- |   |   |                             |
|---|---|-----------------------------|
| Advertising the hotline number          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Conducting meetings/training            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Providing telephone numbers/flow charts | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Other: <u>All Printed Material</u>      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

2.3.3 Performance Standard – Conduct Dry Weather Monitoring

The City has established a dry weather monitoring program (Section 9 of the SWMP). The primary purpose of the monitoring program is to identify dry weather flows and “hot spots” that may need additional source identification studies. The results of the dry weather monitoring and information regarding source identification studies is provided in Section 9 of the Annual Report.

2.3.4 Performance Standard – Document Illicit Discharges

As a part of their normal maintenance activities, City field staff identify signs of previous, current, or potential non-stormwater discharges/connections or illegal dumping into the storm drain system. Once they are discovered, the illicit discharges are corrected/eliminated.

a) Did the City field staff continue to identify illicit discharges?

Yes, illicit discharges identified  Yes, no illicit discharges identified  No

b) If yes, illicit discharges identified, complete the table below:

<b>Total Number of Illicit Discharges Identified By Field Staff</b>
16

**2.4 ID2 Elimination of Illegal Connections**

Similar to the City’s efforts to detect and eliminate illicit discharges (see ID1), the City detects, investigates and eliminates illegal connections to the storm drain system.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

2.4.1 Performance Standard – Investigate/Eliminate Illegal Connections

As a part of their normal maintenance activities, City field staff identify signs of illegal connections to the storm drain system. Once they are discovered, the illegal connections are addressed and corrected/eliminated.

a) Did the City field staff continue to identify illegal connections?

Yes, illegal connections identified  Yes, no illegal connections identified  No

b) Did the responsible staff investigate the potential illegal connections within 21 days?

Yes, within 21 days  No, longer than 21 days  N/A

c) Did the City stormwater program staff eliminate identified illegal connections within 180 days?

Yes, within 180 days  No, longer than 180 days  N/A

d) Complete the summary table below

	<b>Total Number of Connections Identified</b>	<b>Type of Connection</b> <i>(e.g. Pool Drain, Sewer Hook Up)</i>	<b>Total Number of Connections Permitted</b>	<b>Total Number of Connections Eliminated</b>
<b>Last Year</b>	0	0	0	N/A
<b>This Year</b>	0	0	0	N/A

#### 2.4.2 Performance Standard – Coordinate with Planning and Land Development Program

As described in the Planning and Land Development program element, the City requires that tentative parcel maps be reviewed to ensure that they are consistent with the standards. Plan reviews ensure that no illegal connections are proposed. All plan reviews are tracked in a database and construction inspections are conducted upon project completion to ensure that the project was built correctly.

a) Did the City review plans to ensure that there were no illegal connections throughout the year?

Yes, illegal connections identified  Yes, no illegal connections identified  No

### **2.5 ID3 Investigation and Clean Up of Illicit Discharges**

Once an illicit discharge is discovered, the City responds accordingly. In responding, the City investigates and, if necessary, conducts clean up efforts. Enforcement action is also pursued if a responsible party is identified.

While the County has established response procedures for discharges of hazardous materials, formal procedures for discharges of non-hazardous materials have not been developed. As a result, the County developed a performance standard that address the need to develop response procedures for discharges of non-hazardous materials.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

2.5.1 Performance Standard – Respond to Illicit Discharges

When a notification or complaint is received, the City responds and provides an on-site assessment. The investigation process includes determining whether the discharge is occurring on private or public property, whether the discharge is an authorized non-stormwater discharge, and whether the discharge is hazardous. If the illicit discharge is hazardous then the City crews follow appropriate protocols in notifying State and local agencies and protecting themselves from exposure.

- a) Did the City staff respond to notifications/complaints of illicit discharges within two business days?

Yes, within two business days  No, longer than two business days

	<b>Total Number of Complaints/Notifications Received (From All Sources)</b>	<b>Total Number of Complaints/Notifications Investigated Within 2 Business Days</b>
<b>Last Year 2002-2003</b>	290	290
<b>This Year 2003-2004</b>	141	125

- b) Complete the summary table below regarding the types of materials involved in the reported incidents

**Summary by Type of Materials**

<b>Type of Materials</b>	<b>Number of Incidents Reported</b>
Inorganic	16
Paint	14
Petroleum Products	51
Sewage	21
Miscellaneous	35
Unidentified	4

See Appendix B-1 for a complete list of illicit discharges for 2003/04.



### 2.5.2 Performance Standard – Maintain Contractual Cleanup Services

The main objective of the cleanup effort is to restore the affected area back to its original state and prevent further environmental degradation in the surrounding area of the incident. During this phase, the City staff provides oversight for larger spills to ensure that the discharge is removed and disposed of properly.

- a) Was a contractor contacted when the spill clean up could not be carried out with in-house staff and resources?

Yes  No

Contractors were utilized by the City on a case-by-case basis when in-house staff was unable to perform spill clean-up (i.e. hazardous materials spills). Nearly all spills are remediated in-house. The exceptions are for hazardous waste other than sewage and those incidents where the cause of the spill lies with a private party.

### 2.5.3 Performance Standard – Develop and Maintain An Illicit Discharge Database

The City is in the process of developing an Illicit Discharge Database. Information entered into the database will be used to identify target areas for public education and for dry weather monitoring. The database will also serve as a way to track repeat offenders (individuals, locations, and/or businesses) for additional corrective actions.

- a) Did the City develop an illicit discharge database?

Yes  No

- b) If **yes**, several queries were run in order to identify repeat offenders and/or problem areas. The results of those queries are summarized below:

# Sites Impacted Three or More Times (by Address)	# Responsible Parties Involved in Three or More Incidents
0	0

- c) Did the City conduct any special investigations of the identified problematic areas/parties?

Yes  No

2.5.4 Performance Standard – Map Illicit Discharges

As a part of the Illicit Discharge Database, the City is in the process of ensuring that GPS coordinates are recorded so that the discharge locations can be mapped on an annual basis to identify problem areas/responsible parties. The information will be used to evaluate patterns and trends of illicit discharges and illegal connections with the objective of identifying priority areas.

- a) Did the City develop a map identifying the illicit discharges and illegal connections identified during the reporting period?

Yes  No

If **yes**, complete the following table.

Total Number of Priority Areas Identified From Map
N/A

See Appendix B-2 for a map showing the location of illicit discharges. To date the distribution of illicit discharges is relatively evenly dispersed across the City. The City proposes to continue tracking of illicit discharges and augmenting the database to identify potential problem areas.

2.5.5 Performance Standard – Develop an Enforcement Policy

This Program Element provides for a progressive enforcement approach. Typically, the City focuses on public education for residential dischargers with options for progressive corrective actions for repeat offenders. The progressively severe corrective actions involve verbal warnings followed by written warnings and legal action, if necessary.

- a) Did the City develop a progressive enforcement policy (*to be completed by June 30, 2004*)?

Yes  No

- b) Fill out the table below regarding the enforcement actions that were taken during the reporting period

<b>Type of Enforcement Action</b>	
Verbal Warning	35
<b>Administrative Enforcement</b>	
Correction Order	30
Notice of Violation	26
Notice of Clean	
<b>Criminal Enforcement</b>	
Misdemeanor	0
Infraction	0

Total number of complaints/problems referred to the Regional Board: 0

## **2.6 Illicit Discharges Program Assessment**

In order to determine the effectiveness of the Illicit Discharges Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Illicit Discharges Program:

- a) The City has been facilitating the reporting of illicit discharges by establishing a hotline number and then widely advertising it.
- b) The City uses several methods for providing education material to the general public and commercial businesses. Mailings to the general public and to commercial businesses in the last year have prompted calls to the hotline (see above).
- c) The City has a number of provisions that prevent illegal connections. First, all new development plans are reviewed for possible illegal connections and then verified that no such connection exists during the construction phase (see Section 6). Second, City staff have been trained to identify illegal connections in the field. To date these provisions appear to work well as the City has not identified any illegal connections.

- d) The City has addressed illicit discharges by responding to the incidents within two business days and ensuring that the incidents are cleaned up appropriately.

## **2.7 Illicit Discharges Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the Illicit Discharges Program during the next fiscal year include the following:

- The illicit discharge database will be updated to provide for GIS tracking of spill incidents, mapping and faster identification of responsible parties.

### **3.0 – Public Outreach and Education Program Element**

#### **3.1 Overview**

The Public Outreach and Education Program Element will inform the community about how everyday activities can impact stormwater discharges and potentially result in adverse impacts to the local water bodies.

The Program Element is designed to maximize the use of limited resources and to develop partnerships among stakeholders in the Stockton Urbanized Area. Local stewardship and partnerships among governmental agencies, schools, universities and private interests are vital parts of the types of involvement of this Program.

Since everyday activities can be a significant source of pollutants to the storm drain system, the City has developed a comprehensive program to inform the public about the potential impacts that these activities may have on urban stormwater runoff and identify ways that the public can reduce pollutants in stormwater runoff. (Section 3 of the SWMP). Additional information is included within each of the Program Control Measures.

#### **3.2 Control Measures**

The City has developed several Control Measures to ensure that the public outreach and education program requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Public Outreach and Education Program Control Measures consist of the following:

<b>ID</b>	<b>Control Measure</b>
PO1	Public Participation
PO2	Hotline
PO3	POPEP Implementation
PO4	Public School Implementation
PO5	Business Outreach

In addition to the Control Measures listed above, activities conducted pursuant to the Illicit Discharges Program (Section 2), Municipal Operations (Section 4) and other stormwater program elements also support and provide guidance for the Public Outreach and Education Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Public Outreach and Education Program Performance Standards and implementation schedules.

### 3.3 PO1 Public Participation

The participation of the public in the implementation of the City's Stormwater Management Program is critical to a successful effort to protect the water resources. Therefore, active public participation is encouraged and supported by the City.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 3.3.1 Performance Standard – Continue Storm Drain Marker Program

A number of public education and outreach activities, involving citizen volunteers, have been undertaken by the City. Stenciling or applying markers to the storm drain catch basins has grown to be a successful community service project for youth groups, students, businesses and other interested individuals.

- a) Did the City solicit volunteers to stencil/mark the storm drain catch basins throughout the year?

Yes  No

- b) If **yes**, identify how the City solicited those volunteers

Public/business education materials	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
On the City website	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Newsletters	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Community events	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Community contacts	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Information at public counters	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Other <u>UOP and Delta College students</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

- c) Although the total number of storm drain catch basins stenciled by volunteers is summarized in Section 4.7.5 of the Municipal Operations section of the annual report, a summary of the types of volunteer organizations and number of volunteers involved in these efforts is provided below.

Date	Stenciling Location*	Volunteer Organization	# Volunteers Involved	# Catch Basins Stenciled First Time	# Catch Basins Re-Stenciled
8/24/03	27M,32R,33R,34N,35M,35N,36M,36N,36P	UOP Freshman Orientation Project	400	355	0
9/26/03	19N,21K	River Oaks School	40	29	0
10/16/03	28H, 30K, 30L, 31K	UOP-Alpha Phi Omega	10	48	0
10/24/03	22J	Lincoln Elementary	30	22	0
10/25/03	28M,29F,29J,32J,32L,32P,33N,	Make A Difference Day – Girl Scouts, Delta College NRC	26	294	0
11/6/03	30P	Delta College NRC	1	49	0
11/11/03	20L	Delta College NRC	1	47	0
11/12/03	36R	Delta College NRC	1	58	0
11/25/03	18F	Delta College NRC	1	26	0
2/12/04	22K, 23K	COS Afterschool Program students	12	72	0
3/2/04	31P	Delta College NRC	1	54	0
3/24/04	28H, 30K, 30L, 31K	UOP-Alpha Phi Omega	10	48	0
* Block Book pages					0
<b>Total</b>			<b>533</b>	<b>1,102</b>	<b>0</b>

3.3.2 Performance Standard – Continue to Organize, Support and/or Participate in Stream Cleanup Events

The City’s stormwater outreach effort includes partnerships with various volunteer organizations so that they may participate in community stream cleanup events. The City and County have also established an Adopt-A-Stream program with several schools. As a part of the program, the segment/area that is adopted has a permanent sign that is posted identifying that it has been adopted and who adopted it.

a) Did the City continue to organize, support and/or participate in stream cleanup events?

Yes  No

If **yes**, explain how

Continued to work with the Friends of Smith Canal, Friends of Five Mile Creek, Friends of Calaveras River, and school groups participating in the Adopt-A-Stream program to coordinate cleanup events. Partner with the County to participate and provide volunteers, supplies and outreach for California Coastal Cleanup Day.



b) If **yes**, a summary of the stream clean up event(s), the types of volunteer organizations and number of volunteers involved in these efforts is provided below.



Date	Clean-Up Location/Event	City's Role in Event	Volunteer Organization/Community Partner	# Volunteers Involved
07/26/03	Smith Canal	Coordination of resources, provided gloves, trash bags, safety vests and glasses, safety cones, publicity, volunteers, participation in event	Friends of Smith Canal, Delta College and Stagg High School Students, Knights of Columbus (Presentation Church), City of Stockton P&R, CA Conservation Corps.	60
9/20/03	CA Coastal Cleanup Day	Coordinated by the County on 7 waterways within Stockton and 1 in Lodi. Provided boots, gloves, trash bags, dumpsters, safety vests/glasses, street cones, City personnel and volunteers	Community volunteers, Friends of Smith Canal, students from Bear Creek/Stagg/St. Mary's/Lodi/Edison High Schools, University of the Pacific, Delta College NRC students, and Elkhorn School	550
11/01/03	Five Mile Creek	Coordinated with Robt. Ustick, BSA Troop #10. Provided, gloves, boots, trash bags, safety vests/glasses, street cones.	BSA Troop #10, and members of Friends of Five Mile Creek	10
2/6/04	Calaveras River	Worked with Dr. Roger Lang and DeltaKeeper to coordinate with the City, provided gloves, trash bags, promoted for volunteers	Friends of Calaveras River, community volunteers, DeltaKeeper	70
5/08/04	Duck Creek	Coordinated as part of the City's Airport Corridor Action Team	Stockton Jr. Police Academy recruits/parents from Garfield and Van Buren Elementary School, Delta College NRC students, Fire Dept. Station 2 personnel, World Market	37
			<b>TOTAL</b>	<b>727</b>

Total Volume of Trash/Debris Removed: 9-20 yard trash bins + 4 tons from Coastal Cleanup



A summary of the large items removed from the stream clean up events is provided below:

<b>Large Items</b> <i>(Example Categories)</i>	<b>Estimated # or Volume</b>
Tires	72
Shopping Carts	35
Furniture	60

7/26/03 - Friends of Smith Canal cleanup resulted in the **removal of 4 tons of garbage and debris** removed from the canal including 3 sunken boats, 2 docks, appliances, sofa, chairs, mattresses, other furniture, frames, televisions, car batteries, tires/rims and shopping carts.

9/20/03 – The San Joaquin County Stormwater Program coordinates this event while the City participates in the Family Literacy Day in the Park community event. In addition to providing supplies, the City’s efforts included coordinating volunteers and promoting the event in the media. **10,540 pounds of debris was collected in five 20-yard bins, plus 192 trash bags.**

11/01/03 – Boy Scout Robert Ustick organized the event as his Eagle Scout project. City staff provided him oversight, stream cleanup supplies, introduced him to the Friends of Five Mile Creek for partnering, and was able to get newspaper coverage of the event. **One 20-yard dumpster** was filled with tires, bottles, tree branches/limbs, clothing, etc.

2/6/04 – Friends of Calaveras filled **two-20 yard dumpsters** with tires, shopping carts, car parts, trash, appliances, computer parts, etc.

5/8/04 – Partnered with the World Market which donated **one 20-yard dumpster** that was filled with green waste, and trash. Shopping carts and tires were collected separately. The volunteers also painted over graffiti underneath the bridge.

c) A summary of the Adopt-A-Stream program is provided below.

<b>School</b>	<b>Name of Stream/Area Adopted</b>	<b>Date Adopted</b>	<b>Length of Segment</b>	<b>Date Last Cleaned</b>
Bear Creek	Mosher Slough	1999	4 miles	9/20/03
Edison	Walker Slough	1998	2 miles	9/20/03
Franklin	Mormon Slough	2000	1 mile	9/20/03
Stagg	Calaveras	2000	1.5 miles	9/20/03
University of the Pacific	Calaveras River	1999	1.5 miles	9/20/03

Total Volume of Trash/Debris Removed during reporting period: Four 40-yard dumpsters

A summary of the large items removed from the clean up efforts is provided below:

<b>Large Items</b> <i>(Example Categories)</i>	<b>Estimated # or Volume</b>
Tires	60
Shopping Carts	45
Furniture	55

### 3.4 PO2 Hotline

As was previously mentioned in Section 2.3.1 of the Illicit Discharges section of the annual report, the City established a 24-hour hotline in order to allow the public to report clogged catch basins, illegal dumping or illicit discharges, faded or missing catch basin stencils, or receive general stormwater information.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 3.4.1 Performance Standard – Maintain Hotline Number

The City maintains a hotline number. Once a complaint is received, the staff responds using the processes described within Section 2 of the SWMP. Additional summary information regarding the hotline is provided in Section 2.3.1 of the Illicit Discharges section of the annual report.

- a) Did the City track the number of hotline calls that were made?

Yes  No

- b) If **yes**, a summary of the hotline calls is provided below

<b>Type of Problem/Request</b>	<b>Total Number of Calls</b>
Clogged Catch Basins	0
Illegal Dumping or Illicit Discharges	8
Faded or Missing Catch Basin Stencils	0
General Stormwater Information	0
<b>Total</b>	<b>8</b>

#### 3.4.2 Performance Standard – Develop and Implement a Program to Promote the Hotline

The City promotes the 24-hour hotline by including it within public/business education materials, listing it on the website and including it within the government pages of the telephone book. Additional summary information regarding the promotion of the hotline number is provided in Section 2.3.1 of the Illicit Discharges section of the annual report.

### 3.5 PO3 POPEP Implementation

This control measure provides the implementation framework for making 800,000 impressions each year on the general public, students, and business owners and operators regarding stormwater quality. Such outreach communicates the importance of stormwater quality protection and pollution prevention to the City's residents.

In order to achieve these impressions, the City implements extensive public outreach through a variety of means including newsletters, newspaper, radio, government access cable channel, theater ads, participation in public events where promotional and education brochures are distributed, making presentations to various community groups, and through the Storm Drain Stenciling/Marker Program.

In addition to the various outreach opportunities listed above, the City also participates in a statewide Integrated Pest Management Partnership Program with Orchard Supply Hardware (OSH) to encourage the use of less toxic products and proper disposal of pesticides. The program is currently supported in the four OSH stores within San Joaquin County and is expected to be supported in all 82 California stores in 2004. This program is implemented as a part of the Pesticide Plan (Section 8 of the SWMP).

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 3.5.1 Performance Standard – Produce Educational Materials

In order to be effective, the public education and outreach program has a number of educational materials available for various target audiences and activities. Copies of several of these materials are provided in Appendix C-1, all others are available upon request.

- a) A summary of the educational materials that are currently available is provided below.

Name of Material	Target Audience/Activity	Multi- Lingual?	Language
<b>Brochures</b>			
Keep our Creeks, River and Delta Clean...	Residential	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	English, Spanish, Vietnamese, Cambodian, Laotian
BMP-P2 Outside Your Home	Residential	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 On Your Boat	Boat owners/Live-a-board/Marina Owners/Water Recreation Enthusiasts	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 Inside Your House	Residential	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 In Your Garage	Residential/RV Residents/Commercial Business Merchants	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English

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BMP-P2 In Your Garden	Residential/Gardeners/Landscapers	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 Landscaping and Pool Maintenance	Residential/Gardeners/Developers/Landscapers/General Contractors	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
HELP!	Everyone	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 Heavy Equipment Operations	Developers/General Contractors/Home Builders/Site Supervisors	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 Roadwork and Paving	Construction Inspectors and Crews/Developers/Heavy Equipment Operators	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 Earth-Moving Equipment	Construction Crews and Inspectors/Developers/Heavy Equipment Operators	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Protect the Delta	Restaurants/Food Services	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	English, Spanish
Protect the Delta	Auto Industry	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	English, Spanish
Storm Drain Stenciling	Volunteers/Business	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
BMP-P2 for Construction Sites	Developers/General Contractors/Home Builders/Heavy Equipment Operators	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Did you know... Your Facility May Need a Storm Water Permit?	Industrial	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
<b>Posters</b>			
Earth Day Festival	General Public	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
National Pollution Prevention Week	General Public/Commercial and Industrial Businesses	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
CA Coastal Cleanup Day	Volunteers	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Good Cleaning Practices	Auto Industry	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	English, Spanish
Good Cleaning Practices	Restaurants/Food Services	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	English, Spanish
<b>Videos</b>			
Go With The Flow	School program	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Stockton Restaurants Protect the Delta	Restaurant Industry	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Stockton Auto Industries Protect the Delta	Auto Industry	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
<b>Fact Sheets</b>			
Auto Body Shops	Auto Industry	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Auto Repair Shops	Auto Industry	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Dry Cleaning	Dry Cleaners	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
Equipment Rental	Equipment Rental	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	English
	Kennels and pet		

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Kennels	services	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Nurseries	Nurseries	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Restaurants	Food Services	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Retail Gas Outlets	Auto Industry	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Auto Dealers	Auto Industry	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Tips of Healthy, Beautiful Lawns	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Controlling Aphids	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Controlling Ants	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Keeping Fleas Off Your Pets and Out of Your Yard	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Living With Spiders	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Keeping Cockroaches Out of Your House	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Use and Disposal of Pesticides	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Tips for Wonderful Roses	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Controlling Snails and Slugs	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
How to Control Weeds	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Controlling Yellowjackets	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Growing a Healthy Garden	Residential	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Spanish Ants	Residential	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	English, Spanish
Spanish Cockroaches	Residential	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	English, Spanish
Spanish Lawns	Residential	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	English, Spanish
Spanish Snails and Slugs	Residential	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	English, Spanish
<b>Flyers</b>				
Stream Cleanup	General Public	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
Storm Drain Stenciling	Volunteers	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
School program	Teachers/Principals/Students/Parents	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
HHW Facility	General Public	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English
No Swimming Pool Discharge	Swimming pool owners/pool maintenance industry	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	English

b) The educational materials are distributed through a number of mechanisms including:

- |  |   |  |
|--|---|--|
| City website                                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| At civic locations                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| At community events                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Mass mailings                                    | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Bill inserts                                     | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Other: <u>Mailed individually when requested</u> | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |



c) A summary of the total number of materials distributed to the general public is provided below.

Name of Material	Total Number Distributed
“Only Rain Down the Drain” activity booklets	714
“Only Rain Down the Drain” magnets	1440
“Only Rain Down the Drain” stickers	937
Keep Our Creeks Clean brochure (English)	86
Keep Our Creeks Clean brochure (Spanish)	133
Keep Our Creeks Clean brochure (Vietnamese)	15
Keep Our Creeks Clean brochure (Cambodian)	16
Keep Our Creeks Clean brochure (Laotian)	15
HELP! Stormwater brochure	48
Landscaping and Pool Maint. - P2 brochure	38
On Your Boat - P2 brochure	26
Paints and Solvents - P2 brochure	24
In Your Garden - P2 brochure	32
Outside Your House - P2 brochure	19
Inside Your House - P2 brochure	43
In Your Garden - P2 brochure	22
In the Garage - P2 brochure	34
<b>Sub-total</b>	<b>3,642</b>
Water Conservation carry bags	579
Water Conservation rulers	284
Keeping Track – water use flyer	47
Use Water Wisely Wisely wheel	86
Water Conservation in Your Home	45
55 Facts on Water Conservation brochure	62
Water Efficient Plants	9
Stick Up for Water Conservation stickers	20
Water Fun Facts – DWR teacher materials	30
<b>Sub-total</b>	<b>1,162</b>
School Program – flyer	23
Stream Cleanup – flyer	17
Stenciling - flyer	8
Stormwater tips - flyer	15
Volunteer opportunities – flyer	20
Make A Difference Day - flyer	5
National America Recycles Day - flyer	9
HHW Permanent Facility – flyer	5
<b>Sub-total</b>	<b>102</b>
Backyard composting guide	45
Waste Reduction and Recycling Guide	124
<b>Sub-total</b>	<b>169</b>
Growing a Healthy Garden	150
Controlling Aphids	150
Controlling Ants	150
Keeping Fleas Off Your Pets and Out of Your Yard	150
Living With Spiders	150
Keeping Cockroaches Out of Your House	150
Tips for a Healthy, Beautiful Lawns	150
Use and Disposal of Pesticides	150
Tips for Wonderful Roses	150

Controlling Snails and Slugs	150
Keeping Mosquitoes Away from You and Your Yard	150
How to Control Weeds	150
Controlling Yellowjackets	150
Cockroaches - Mantenga a Las Cucarachas Fuera de su Hogar	150
Lawns - Sugerencias Para Tener Un Césped Sano	150
Snails and Slugs - Control de Caracoles Y Babosas en su Huertos y Jardines	150
<b>Sub-total</b>	<b>2,400</b>
Earth Day posters	1000
National Pollution Prevention Week posters	150
CA Coastal Cleanup posters	30
<b>Sub-total</b>	<b>1,180</b>
<b>TOTAL</b>	<b>8,655</b>



*Examples of Public Outreach Brochures*

d) Are additional materials currently under development?

Yes  No

If **yes**, list materials

Fact Sheet - Pet Waste Disposal  
 Flyer – Swimming Pool Discharge

e) Are the materials periodically reviewed and updated?

Yes  Not recently – it has not been necessary No

### 3.5.2 Performance Standard – Update Audiovisual Tools and Website

On an as needed basis, the City updates the website audiovisual tools so that they remain current. The website is located at <http://www.stocktongov.com/MUD/pages/stormwater.htm>

a) Are the audiovisual tools and website periodically reviewed and updated?

Yes  Not recently – it has not been necessary

If **yes**, a summary of which tools were modified is provided below.

Type of Tool	Modifications Made	Modification Date
<i>Website Page(s)</i>	Friends of Smith Canal cleanup	July 2003
	Stormwater Management Plan	September, 2003
	Alert – residential prep for rainy season	September, 2003
	Low DO community mailer overview	October, 2003
	Make A Difference Day – stenciling volunteers	October, 2003
	Stormwater Quality Control Criteria Plan	November, 2003
	Earth Day Festival	March, 2004
	Low DO, Pathogen, Pesticide Plans for public comment	April, 2004 April, 2004
<i>Power Point Presentation</i>	“Only Rain Down the Drain” – General Overview	January 2004

### 3.5.3 Performance Standard – Conduct Mixed Media Campaigns

The City and County conduct a mixed media campaign that consists of radio and government access cable channel public service announcements (PSA), movie theater slides, print ads and signage. The mixed media campaign is the primary mechanism that is implemented in order to achieve the 800,000 impressions that are required.

- a) A summary of the mixed media campaigns that were conducted for the general public is provided below. (*City reports on behalf of the County*)



River of Words  
 Contest Winners



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<b>Campaign Name &amp; Media Outlet Used</b>	<b>Target Audience</b>	<b>Targeted Pollutant(s)</b>	<b>Run Time (Jan – June)</b>	<b>Total Number of Impressions</b>
<b>Radio PSA(s)</b>				
KUYL – Ports Baseball	General public	General stormwater message	April – June	10,000
Entravision Radio – KMIX-FM, KTSE-FM, KCVR-AM	Spanish speaking community	General stormwater message	April-May	200,000
			<b>Sub-total</b>	<b>210,000</b>
<b>Government Access Cable Channel PSA(s)</b>				
Channel 97 – Permanent HHW Facility	Residential	Household chemicals	Aug.	55,000
Channel 97 – Prepare for rain	Residential	Leaves, grass, dirt, trash	Sept.	55,000
Channel 97- River of Words Environmental poetry/art contest	Students/ Teachers/poets/artists	General stormwater message	Sept./Oct.	55,000
Channel 97 – Make A Difference Day/stenciling	Volunteers	General stormwater message	Oct.	55,000
Channel 97- Earth Day Festival	General Public	General environmental awareness message	March/April	55,000
Channel 97 – Solutions for Compliance Workshop	Commercial/ Industrial	General stormwater message	March	55,000
Channel 97 – Swimming pool discharge	Pool owners/ maintenance businesses	Swimming pool discharges	Feb./March	55,000
Channel 97 – Environmental Excellence Awards	Commercial/ Industrial	General environmental message	Jan./Feb.	55,000
Channel 97 – Duck Creek stream cleanup	Volunteers	General stormwater message	May	55,000
			<b>Sub-total</b>	<b>495180,000</b>
<b>Movie Theater Slide(s)</b>				
City Centre Cinema 16	General public	General stormwater message	April, May, June	200,000
			<b>Sub-total</b>	<b>200,000</b>
<b>Print Ad(s)*</b>				
Weston Ranch Advertiser	Residential	General stormwater message	Sept. '03	5,000
Parks & Rec. Guide	Residential	General stormwater message	Jan.-April '04	106,242
			<b>Sub-total</b>	<b>111,242,</b>
<b>Signage/Billboards</b>				
N/A				
<b>Newspaper(s)</b>				
Record – New UOP class will clean Stockton	General public	Stenciling volunteers	8/21/03	62,139
Record – Stenciling Out Stereotypes	General public	Stenciling volunteers	8/24/03	62,139
Caravan – Help Clean Up the County	General public	Stream cleanup volunteers	Sept. '03	20,000
Record – CA Coastal Cleanup	General public	Stream cleanup volunteers	9/21/03	71,715
Record – Scout cleans up dirty creek	General public	Stream cleanup volunteers	11/2/03	71,715
Connections – Calling all teachers, students, artists, poets	General public	General stormwater message	Dec. '03	10,000
Caravan – Make Earth Day Your Day to Start Recycling and Conserving	General public	General stormwater message	April '04	20,000
Record – Visual Aide Used at Earth Day Festival	General public	General stormwater message	April 19, '04	48,000
			<b>Sub-total</b>	<b>365,708</b>

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		Newsletter(s)		
One Person's Trash – Waste Management/Stockton Scavenger/Sunrise Sanitation/COS quarterly newsletter	Residential	General stormwater message	Spring '04	106,242
City Update – Stop! Don't Wash Your Car in the Driveway	Residential	Car Washing	Aug. '03	37,000
City Update – It's Time to Prevent Pollution	Residential	Auto fluids	Sept. '03	37,000
City Update – HHW Permanent Waste Collection Site	Residential	Hazardous Materials	Oct. '03	37,000
City Update – Stormwater Reminder	Residential	Rainy season reminder	Nov. '03	37,000
City Update – Stop Stormwater Pollution	Residential	Trash	Dec. '03	37,000
City Update – Help Prevent Flooding On Your Street	Residential	General stormwater message	Jan. '04	37,000
City Update – Dog Owner Tips	Residential	Pet waste	Feb. '04	37,000
City Update – Keep Your Pool Water Out of the Delta	Residential	Pool water	March '04	37,000
City Update – Earth Day Festival	Residential	P2 Prevention	April '04	37,000
City Update – Be Water Wise	Residential	Water Conservation	May '04	37,000
City Update – Grasscycling	Residential	Green Waste	June '04	37,000
			<b>Sub-total</b>	<b>513,242</b>
			<b>TOTAL</b>	<b>1,896,192</b>

\*Newspaper print ads are costly and not as effective. The City chooses to ensure coverage of events which provides more description of the urban stormwater pollution concerns.

b) A summary of additional general outreach efforts that were conducted is provided below.

Type of Outreach	Description	Total Number of Recipients
City Manager's – The Week That Was	UOP Stenciling Project	1,000 employees City's website – 1,000 hits
City Manager's - The Week That Was	CA Coastal Cleanup River Oaks School cleanup	1,000 employees City's website – 1,000 hits
City Manager's – The Week That Was	Make A Difference Day Lincoln School stenciling	1,000 employees City's website – 1,000 hits
City Manager's –The Week That Was	Eagle Scout Cleanup River of Words partnerships Friends of Smith Canal	1,000 employees City's website – 1,000 hits
City Manager's – The Week That Was	Duck Creek Cleanup	1,000 employees City's website – 1,000 hits
Website (# of Hits)	Hits on the stormwater pages	1,500
	<b>Total*</b>	<b>11,500</b>

3.5.4 Performance Standard – Conduct Mass Mailings

The City conducts mass mailings regarding stormwater pollution prevention to each household in the Stockton Urbanized Area.

a) Total number of households in City area: 85,988 (2003)

b) Average number of people per household: 3.1

c) Did the City conduct a mass mailing? (*Required in 2003, 2005 and 2007*)

Yes  No

d) If **yes**, information regarding the mass mailing is provided below.

Date(s) of Mailing(s)	Types of Information/Educational Materials Included within the Mailing	# Households Targeted
10/1-3/03	8x10 double sided (English-Spanish)	106,242 (County and City)
	Low dissolved oxygen message	
	<b>Total</b>	<b>106,242</b>

Percentage of households reached: 100% of City's residential units

### 3.5.5 Performance Standard – Develop Campaign Approach

To better understand the level of awareness in the community, the City, in collaboration with San Joaquin County, conducted a baseline public opinion survey in March and April 2003. The survey results established a baseline for assessing public perceptions and behaviors related to stormwater quality management. The survey will also assist the Permittees in assessing the overall effectiveness of the public outreach program.

The survey results also provided information for the development of the over-arching campaign approach which was formalized in a document entitled “Public Outreach Strategic Implementation Plan, July 2003.” This document was transmitted to the Regional Water Quality Control Board in October 2003 as Appendix C-1 of the Stormwater Management Plan. The Plan is comprehensive and includes development, implementation and assessment tasks so that public education objectives may be achieved over the life of the permit. Additional information regarding the Strategic Implementation Plan update and additional public opinion surveys is reported on in Section 3.5.9.

The City has established an advisory committee to provide input and assistance in meeting the goals and objectives of the public education program. The committee currently includes representatives from large business, small business, schools and a watershed volunteer group.

a) Did the City's advisory committee convene during the reporting period?

Yes  No

b) If **yes**, complete the summary below

Meeting Date	Topics of Discussion
July 7, 2003	Community Baseline Survey, Strategic Plan

### 3.5.6 Performance Standard – Conduct Editorial and Media Relations

In order for the City to be able to effectively implement the mass media campaigns and leverage their resources, editorial and media relationships need to be established and utilized.

a) Did the City create and maintain a database of media sources for use in educating the community about stormwater pollution prevention?

Yes  No

If **no**, provide an update

b) Did the City conduct editorial and media relations for the outreach program?

Yes  No

c) If **yes**, identify which editorial and media relation activities occurred:

Invitations to broadcast coverage of events Yes  No   
 Invitations to print media coverage of events Yes  No   
 Provision of feature stories Yes  No   
 Public affairs shows Yes  No   
 Other: On-going contact with local reporters Yes  No

If **yes**, a brief explanation of each event, feature story or interview covered/conducted and the topic of discussion is provided below.

A press release is submitted to the City’s Public Information Officer for every major event. Those that grabbed the attention of the media included:

8/24/03 - UOP Freshman Orientation project – worked with UOP staff to provide information for the press release on stenciling project with 400 students.

4/18/04 – Worked with Record reporter to promote Earth Day Festival prior to the event and the day of the Festival. Submitted information and press release to the PIO who prepared radio PSAs promoting the event.

6/28/04 – Dedication of the River of Words poetry and art structure at Haggin Museum. Sent a press release and had a follow-up conversation with the news editor on the connection, for some students, between stewardship of the environment and the arts.

3.5.7 Performance Standard – Participate in Community-Wide Events

The City participates in community-wide events that provide outreach to the general public and co-sponsor neighborhood events. These efforts also include partnering with other organizations as appropriate, waste oil recycling and household hazardous waste events.

a) Did the City participate in community wide-events?

Yes  No

b) If **yes**, a summary of the community-wide events is provided below.

Name of Event	Date(s)	City Role in Event	Target Audience or Activity	Total Number of Attendees	Estimated # of Attendees Reached
Ag Expo	1/20-22/04	Provide brochures, magnets, stickers and stormwater model	Ag community	5,000	2,500
State of the City	2/25/03	Provide outreach materials, demo stormwater model	Business community	1,000	500
Earth Day Festival	4/18/04	Coordinate festival, provide stormwater info	General Public	5,000	4,500
Solutions for Compliance Workshop - TOPPS	4/22/04	Assist in event coordination, provide stormwater info	Business community	100	100
Cinco de Mayo	5/2/04	Distribute stormwater material, demo stormwater model	Spanish speaking residential and business community	12,000	5,000
UOP job fair	8/23/04	Promote volunteer opportunities – stream cleanup, Earth Day, stenciling	Student volunteers	500	250
Black Family Day	9/6/04	Distribute stormwater materials, demo stormwater model	African-American residential community, students	5,000	2,500
Environmental Excellence Awards - TOPPS	9/17/03	Assist in event coordination, provide stormwater info	Business community	100	100
Family Literacy Day in the Park	9/18/03	Staff stormwater information booth	General public	20,000	10,000
Make A Difference Day	10/25/03	Coordinate storm drain stenciling volunteers	Students, volunteers, general public	30	30
National America Recycles Day	11/15/03	Staff stormwater information booth	General public	200	200
				<b>Total*</b>	<b>25,680</b>

\* Include total number in the summary table at the end of Section 3.5.9

c) Did the City partner with other Departments, agencies as a part of the stormwater outreach effort?

Yes  No

If **yes**, a summary of the partnership opportunities/efforts is provided below.



Environmental Excellence Award

Name of Organization	Partnership/Stormwater Program Opportunity	Event/Completion Date
City of Stockton – Solid Waste Division	Conversion to the three bin recycling/green trash program	On-going
City of Stockton – City Manager/Mayor’s Offices	State of the City Provide info on the City’s Stormwater Management Program	2/25/04
TOPPS (Targeted Opportunities to Prevent Pollution in San Joaquin Co.)	Environmental Excellence Awards Solutions for Compliance Workshop	9/17/03 4/22/04
City of Stockton – Parks & Rec. Dept.	Summer Discovery Program	7/04/03 7/29/04
City of Stockton – Volunteers Services	Make A Difference Day- Stenciling stormdrains	10/25/03
City of Stockton – Parks & Rec. Dept.	Summer Discovery Program	7/04/03 7/29/04
City of Stockton – Waste Division	National America Recycles Day – Storm Water Pollution Prevention display	11/15/03
City of Stockton – Public Art Advisory Committee	River of Words environmental poetry and art structure in Victory Park	8/06/03 to present

d) Did the City participate in a used oil grant/program?

Yes  No

The City promotes the County’s used oil program on its website, through distribution of Waste Reduction and Recycling Guide, on Channel 97, in the City’s utility bill newsletter.

If **yes**, a summary of the waste that has been collected is provided below

Type of Waste	Waste Collected (gallons or # filters)
Motor Oil/Oil Products	118,740
Oil Filters	3,050

e) Did the City hold local household hazardous waste collection events?

Yes  No  – Residents are directed to County’s permanent collection site

A summary of types of wastes that were collected through local events (City and County) or through the permanent collection site (County) is provided below.

Category	Type of Waste	Total Amount Collected (lbs)	Percentage of Total Waste Collected
<b>Reuse</b>	Reusable items	2,221	0.4%
		<b>Sub-Total</b>	<b>2,221</b>
<b>Recyclables</b>	Antifreeze	4,250	0.7%
	Empty drums	12,410	2.0%
	Flammable liquids (bulked)	31,450	5.1%
	Fluorescent light tubes	776	0.1%
	HID lamps	10	0.0%
	Household batteries	1,250	0.2%
	Latex paint	268,600	43.5%
	Lead acid batteries (automotive)	28,080	4.5%
	Mercury	10	0.0%
	Motor oil	36,550	5.9%
	NiCd batteries	720	0.1%
	Oil based paint	77,145	12.5%
	Oil filters	3,050	0.5%
	Propane (BBQ size)	1,830	0.3%
		<b>Sub-Total</b>	<b>466,131</b>
<b>Incineration</b>	Aerosols	6,670	1.1%
	Ammonium nitrate fertilizers	4,290	0.7%
	Compressed gasses	325	0.1%
	Flammable liquids	15,530	2.5%
	Flammable solids	58,910	9.5%
	Fuses	60	0.0%
	Inorganic acids	3,615	0.6%
	Inorganic bases	6,370	1.0%
	Lab packs	0	0.0%
	Medical sharps	308	0.1%
	Neutral oxidizers	1,180	0.2%
	Non-RCRA liquids/solids	0	0.0%
	Organic acids	210	0.0%
	Organic bases	0	0.0%
	Organic peroxides	60	0.0%
	Oxidizing acids	210	0.0%
	Oxidizing bases	1,185	0.2%
	PCBs	425	0.1%
	PCB containing paints	0	0.0%
	Pesticide liquids	13,340	2.2%
Pesticide solids	4,580	0.7%	
Reactives	10	0.0%	
		<b>Sub-Total</b>	<b>117,068</b>
<b>Landfill</b>	Sulfur	575	0.1%
	Asbestos	31,240	5.1%
		<b>Sub-Total</b>	<b>31,815</b>
		<b>Grand Total Collected</b>	<b>617,235</b>

f) Did the City advertise the County's permanent household hazardous waste collection center?

Yes  No

If yes, the mechanisms used to advertise the site are listed below

Website Yes  No   
 Flyers Yes  No   
 Articles Yes  No   
 Public Service Announcements Yes  No   
 Press Releases Yes  No   
 Other: City's Waste Reduction/Recycle Guide Yes  No

3.5.8 Performance Standard – Provide Community Relations

In addition to the community relations that are established through the various outreach efforts that are undertaken such as multi-media campaigns, mass mailings, website postings, volunteer solicitation, editorial and media relations and participation in community-wide events, the City also builds these relationships by holding briefing sessions for community leaders, educators and public employees as well as coordinating with local organizations.

a) Did the City hold briefing sessions/provide presentations?

Yes  No – only required in 2003-2004 and 2005-2006

b) If yes, a summary of the briefing sessions/presentations is provided below.

Date	Target Audience	Topic of Discussion	Number of Attendees
7/17/03	Parks & Rec Mgmt. Staff	Stormwater Pollution Prevention in Parks, Corp Yard, Parking Lots	5 Supervisors
7/18/03	Golf Course personnel	Stormwater Pollution Prevention and IPM on the Golf Courses	Golf Course Superintendent
7/30/03	Public Works Solid Waste Personnel	Stormwater Pollution Prevention and new Green Waste program	2 Solid Waste Managers
1/27/04 – 2/10/04	Stockton Fire Personnel	Stormwater Pollution Prevention at home and in the fire house	300 fire personnel
3/26/04	Public Works – Road Maint Crews, Engineers Community Dev. – Building Inspectors	Stormwater Pollution Prevention on construction sites, in the streets and parking lots, as part of Design Review	53 Public Works and Community Development personnel
		<b>Total</b>	<b>361</b>

c) Did the City outreach to, and/or coordinate with local community and environmental organizations?

Yes  No



- d) If **yes**, a summary of the activities is provided below. (include grants made to community groups when applicable)

Organization	Coordination Activities
Stockton Catholic Diocese – Environmental Justice Committee	Stormwater pollution prevention presentations to local Catholic Churches, work with diocese/parishioners on an environmental grant (on-going effort)
DeltaKeeper	On-going effort to work together (i.e., participate with the UOP stenciling project, Earth Day, Friends of Calaveras River, CA Coastal Cleanup Day, Friends of Smith Canal cleanup events, etc.)
Adopt-A-Watershed (San Joaquin Watershed Education Partnership)	On-going teacher Place-Based Learning training, River of Words environmental poetry and art contest, participation of teachers in Earth Day Festival activities.
San Joaquin Co. Office of Education	On-going activities with CREEC (the California Environmental Education for Teachers Network), Science Fair, Earth Day Festival

### 3.5.9 Performance Standard – Update Strategic Implementation Plan

The City and County will review the Strategic Implementation Plan during Year 3 of the permit in order to identify any updates that may be necessary. This process recognizes that the education program is continually evolving process of refining messages to be communicated evaluating the audiences to be reached and identifying the most effective and cost efficient methods to communicate.

- a) Did the City and County conduct another public opinion survey as a part of the Plan update?

Yes  No  to be conducted in 2004-2005 and 2006-2007

- b) Did the City and County update the Strategic Implementation Plan?

Yes  No  to be completed during 2004-2005 and 2005-2006

#### Total Number of Impressions Made With the General Public\*

Type of Outreach	Number of Impressions
Distribution of Educational Materials (Section 3.5.1 c)	8,655
Conduct Mixed Media Campaigns (Section 3.5.3 a)	1,581,192
Conduct Mixed Media Campaigns (Section 3.5.3.b)	11,500
Conduct Mass Mailings (Section 3.5.4 c)	106,242
Participate in Community-Wide Events (3.5.7 b)	25,680
Provide Community Relations (Section 3.5.8 b)	361
<b>Grand Total</b>	<b>1,733,810</b>

\* This table summarizes the totals from each performance standard for Section 3.5 and represents an estimated number of impressions. A final calculation for the total number of impressions using standard industry practices will be determined after submittal of the annual report and provided in future annual reports.

### 3.6 Public School Education

Presentations made to school age children are an effective outreach method because the children are asked to pass the pollution prevention information on to their families. This control measure provides public school districts within the City with outreach materials to educate school-age children about storm water pollution prevention.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 3.6.1 Performance Standard – Educate 50% of 5<sup>th</sup> Graders on Stormwater Pollution Every Two Years

A 45-minute interactive classroom presentation has been developed which includes a 7-minute video that discusses the water cycle, wastewater, and water conservation. The program was developed to help teachers meet the science component of the California Content Standards for 5<sup>th</sup> grade. Each student receives an “Only Rain Down the Drain” activity booklet and sticker. Each teacher receives a packet of information on water, wastewater, stormwater, and water conservation information from the Department of Water Resources.

a) A school summary is provided below.

School District	Number of Elementary Schools	Number of 5 <sup>th</sup> Graders Enrolled (School Year: 2003-2004)
Stockton Unified	30	3,702
Lincoln Unified	5	279
Lodi Unified	11	675
Manteca Unified	4	103
	<b>48 Total</b>	<b>4,759</b>

b) Did the City provide the schools within their local jurisdiction stormwater education materials?

Yes  No

Materials are available to teachers, but the City prefers to do the presentations of the classroom program.

If **yes**, a summary of the activities that the schools conducted is provided below

<b>Name of School</b>	<b># of Students Receiving Materials Grade: 5<sup>th</sup></b>
Davis School	31
River Oaks School	96
Lincoln School	31
Colonial Heights School	61
Elkhorn School	28
Madison School	50
St. George's School	28
August School	93
Oakwood School	155
Rio Calaveras	32
Sierra Christian	25
Transitional Learning Ctr.	10
Mable Barron School	96
Great Valley School	20
Brookside School	32
<b>Total</b>	<b>788</b>

c) Did the City make presentations to school classrooms (any grade)?

Yes  No

d) Did the City make presentations to 5<sup>th</sup> graders?

Yes  No – only required every two years (by June 2005 and June 2007)

If **yes**, a summary of the presentations that were made is provided below

Percentage of 5<sup>th</sup> graders reached this year 16.5%

Percentage of 5<sup>th</sup> graders reached for two-year cycle: 2003-2004 & 2004-2005 16.5  
 2005-2006 & 2006-2007 NA

Date	Name of School	# of Presentations Made	# of Children In Attendance Grade: 5 <sup>th</sup>	# of Children In Attendance Grade: (x)
8/5/03	Davis	1	31	
9/24/03	River Oaks (followed by a stenciling/cleanup at two park sites)	3	96	
10/14/03	Lincoln School (followed by a class stenciling project)	1	20	8(4 <sup>th</sup> )
10/15/03	Colonial Heights	2	61	
12/15/03	Elkhorn School	1	31	
1/12/04	Madison School (followed by a class stenciling project)	1	20	
2/4/04	St. George's	1	28	
2/11/04	Seifert Community Ctr. – Afterschool Program	1	20	20 (7 <sup>th</sup> & 8 <sup>th</sup> )
2/8/04	August School	3	93	
2/18/04	Oakwood School	5	160	
2/20/04	Rio Calaveras	1	32	
4/6/04	Mable Barron	3	96	
1/16/04	Great Valley	1	20	6 (4 <sup>th</sup> )
5/4/04	Transitional Learning Ctr.	1	23	13(2 <sup>nd</sup> & 3 <sup>rd</sup> )
05/07/04	Brookside School	1	32	
5/11/04	John Muir (Back to School Nite)	Several	100	Various ages
5/27/04	Sierra Christian (as part of the RWCF tour)	1	25	
		<b>27</b>	<b>788</b>	

### 3.6.2 Performance Standard – Maintain After-School Program

The Stormwater Outreach effort partnered with the City's Parks and Recreation Department to make presentations as part of its After School Discovery Program. The presentations were shortened versions of the classroom presentation and included viewing the "Only Rain Down the Drain" video and demonstrations with the watershed model. Each student receives an "Only Rain Down the Drain" activity booklet and sticker.

- a) Did the City maintain the partnership with the City of Stockton Parks and Recreation Department to include stormwater presentations in the after school program?

Yes  No

b) If yes, a summary of the after school program is provided below.

Name of Center/Location	# of Presentations Made	# of Children In Attendance Grade: 5th	# of Children In Attendance Grade: (x)	# of Children In Attendance Grade: (x)
McKinley Community Ctr.	3	40	20 (8-9)	20 (11-12)
Sierra Vista Community Ctr.	2	15	15 ( 8-9)	10 (11-12)
Van Buskirk Community Ctr.	1	12	2 (8-9)	5 (11-12)
<b>TOTAL</b>		67	37	35

### 3.6.3 Performance Standard – Send Promotional Flyers

In order to promote the classroom programs and availability of educational materials, the City sends flyers out to the schools.

a) Did the City send flyers to designated schools?

Yes  No

b) If yes, a summary is provided below.

Number of Schools Targeted	Number of Schools Requesting Programs/Materials As A Result of the Flyer
48	14 (letters/flyers were mailed to all 48 school on 2/21/04)

## 3.7 Business Outreach

Various commercial and industrial businesses may contribute stormwater pollutants. This control measure educates business owners and operators about stormwater quality and potential impacts on water resources. In an effort to outreach to the specific types of businesses, the City conducts business workshops and has developed a performance standard to address this activity.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

### 3.7.1 Performance Standard – Conduct Business Workshops

The City and County are lead partners in the Targeted Opportunities to Prevent Pollution in San Joaquin County (TOPPS) organization which is a public-private partnership formed for the sole

purpose of providing educational and support on pollution prevention to business, industry and agriculture in San Joaquin County.

a) Did the City conduct business workshops or hold business specific events?

Yes  No – only required every two years (by June 2004 and June 2006)

b) If **yes**, a summary is provided below.

Date	Name of Event or Workshop	Event or Workshop Topic(s)	Type of Business(es) Participating	Total Number of Businesses	Number of Attendees
4/22/04	Solutions for Compliance Workshop	Successful P2 businesses, Hazardous Waste, Clean Air, Stormwater (Industrial Permit)	Large/small businesses and government agencies (see attachment)	45	89
9/17/03	Environmental Excellence Awards	Pollution Prevention of Air, Land and Water	Transit Dist., paper, cargo handling, surgical products, environmental management firm, golf course, prison, vineyard (see attachment)	7	65
<b>Total</b>				<b>52</b>	<b>154</b>

### 3.7.2 Performance Standard – Distribute Educational Materials to Businesses

The City distributes educational materials regarding stormwater pollution and BMPs, stormwater regulations, and penalties for noncompliance to a number of different types of businesses.

a) Did the City distribute educational materials to businesses listed in the table below (b)?

Yes  No

b) If **yes**, a summary is provided below.

Type of Business	Educational Materials Distributed	Number Distributed	Distribution Method(s)
Auto Washing and Detailing		1	During inspection
Auto sales	English/Spanish poster, brochures, fact sheets	17	During inspection
Auto repair	English/Spanish poster, brochures, fact sheets	34	During inspection
Auto body	English/Spanish poster, brochures, fact sheets	5	During inspection
Retail Gas Outlets	English/Spanish poster, brochures, fact sheets	9	During inspection
Carpet Cleaning	Database established		
Commercial Pesticide Application	Database established		
Concrete Pouring Contractors	Database established		
Concrete Cutting	Database established		
General Building Contractors	Letter /brochure	50	Mailed 11/03/04
Landscape Installation and/or Maintenance Contractors	Database established		
Paint Contractors	Database established		
Portable Toilet Rental	Database established		
Pressure Washing	Database established		
Street Sweepers	Database established		
Swimming Pool Contractors and Maintenance Providers	Letter/pool brochure	40	Mailed 4/02/04
	<b>Total</b>	<b>156</b>	

**3.7.3 Performance Standard – Distribute Educational Materials to Residential and Commercial Builders**

The City distributes educational materials to residential and commercial builders that include information regarding the prohibitions on discharges of sediment and other pollutants from job sites as well as guidance documents for selecting and installing BMPs.

a) Did the City distribute educational materials to residential and commercial builders?

Yes  No – only required every two years (by June 2005 and June 2007)

b) If **yes**, a summary is provided below.

Educational Material	Target Audience	Distribution Mechanism(s)	Number Distributed
Letter/brochure	Contractors, developers, builders	US mail	50
Letter/brochure	Pool maintenance	US mail	49

### **3.8 Public Outreach and Education Program Assessment**

In order to determine the effectiveness of the Public Outreach and Education Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Public Education and Outreach Program:

- a) The City's Stormwater Outreach Program makes every effort to partner with a variety of groups within the community, whether to share resources, volunteers or to educate about pollution prevention. Approximately 533 volunteers stenciled 1,102 storm drain catch basins, 567 volunteers gave their time to cleanup our local streams, creeks and river, and 80 volunteers helped make the Earth Day Festival possible for about 10,000 attendees. Among the groups that help provide those volunteers are:

**Adopt-A-Watershed (San Joaquin Watershed Education Partnership)** – Joining with teachers and representatives from AAW and Natural Resources Conservation Services to provide Placed-Based Learning (PBL) teacher training workshops which include stormwater pollution prevention. On several occasions, this group has also partnered with the Sea Scouts of the Boy Scouts of America to provide PBL training to teachers from aboard a ship in the Delta. This has proved to be a valuable water quality training tool for teachers.

**Orchard Supply Hardware** – This year both the City and County began a partnership with the Bay Area Stormwater Management Agencies Association (BASMAA) to implement the “Our Water Our World” program at the sole Stockton OSH store. The program is part of a State-wide effort to bring the program to all 82 California stores. With fact sheets and shelf talkers, OSH customers now have the opportunity to learn about the use of less toxic, organic products in their yards and gardens. In addition to having the display inside the store, the City and County staffs are scheduled to participate in store weekend events to further promote stormwater pollution prevention. The facts sheets have also proven to be very popular hand-outs at community events and have allowed for more educational opportunities on the impacts of toxic pesticides, fertilizers and herbicides to water quality.

**Phase II Cities, San Joaquin County** – This is an on-going partnership to share information on Stockton's outreach programs. This has resulted in a partnering for cost-sharing of Spanish language radio PSAs.



**River of Words poetry and art contest** – Working with Stockton teachers as a local affiliate to promote this international environmental poetry and art contest for students K-12. This year the contest, held in conjunction with the annual Earth Day Festival has been elevated from an art and poetry contest to a public art event. With an unsolicited contribution of \$10,000 from the City's Public Arts Advisory Committee, an art structure bearing the 12 winners of this year's event is currently located in Victory Park, next to the Haggin Museum, with its environmental works publicly displayed. This will be an on-going display in the park to promote environmental stewardship.

**San Joaquin Delta College** – Volunteerism has become a major component within the Natural Resources Conservation program with students participating in the Earth Day Festival, stenciling storm drains, and stream cleanups.

**San Joaquin County Office of Education** – The Stormwater Outreach Coordinator participates as a member of the district CREEC (California Regional Environmental Education Commission) Network to help integrate environmental education into the classroom, provide stormwater pollution prevention information for teacher's use in the classroom, and promote storm drain stenciling as a community service learning project required in many school districts.

**University of the Pacific** – Beyond the Freshman Orientation held in August where nearly 400 students stenciled storm drain catch basins, sororities, fraternities and individual students continue to volunteer their time to stencil storm drains and clean local waterways. This year the University's Summer Visual Arts Program held a 9-day community program entitled **Aquatopia: A Confluence of Art, Science and Engineering in the California Watershed** to promote a better understanding of history and future of our region's water resources. The City of Stockton's Stormwater Outreach Coordinator was invited to sit on two different panels: 1) On the Water Table: Agents, Advocates and Artists, and 2) From Our View: A Discipline-Based Look at the Environment. She had the opportunity to share pollution prevention information with teachers, students, interested community members and potential volunteers. In addition, she shared one of her teaching tools, the EnviroScape (watershed model) and how she uses it to describe the importance of understanding our watershed.

- b) The City has provided extensive outreach to the general public (approximately 1,733,810 impressions in 2003-2004) by conducting a number of efforts. Based on the Community Baseline Survey performed last year by Panagraph, the City has developed a Strategic Plan for the public information/public participation component of the stormwater outreach program. For the last several years the primary slogan for the stormwater program has been "Only Rain Down the Storm Drain." That message is on most of the City's printed material, included in PSAs, ads, on the City's website, and anywhere there is a discussion of stormwater pollution prevention. While most of the printed material is in English, the City does have a brochure that has been translated in Spanish, Cambodian, Laotian, and Vietnamese. The City has implemented a multi-media approach to disseminate the pollution prevention message using newspaper stories, press releases, PSAs (both for Spanish and English language radio, as well as City's government access cable station), brochures, hand-

outs, community events, newsletters, school programs, garnering volunteers for stenciling and stream cleanup projects, and community presentations. All these efforts have totaled beyond the mandated 800,000 impressions.

- c) The City's Stormwater Management Program continues to support the County's Household Hazardous Waste Permanent Facility through stories of the City's government access cable station, monthly utility bill newsletter, distribution of the City's Waste Reduction and Recycling Guide which include information on the HHWPF, distribution of flyers at all community events and as part of the information kit provided to teachers during classroom presentations.
- d) Every attempt is made to outreach to 5<sup>th</sup> grade students by sending out flyers and letters to teachers and principals. The City has opted to make presentations to the students instead of just forwarding the materials to the schools. However, the materials are available to teachers without the in-class presentation, if they choose. While this last year the number of programs presented has gone down, the City has recently hired a part-time substitute teacher to ensure that contact is made with the teachers which will result in more school program presentations.
- e) With its on-going partnership with the TOPPS (Targeted Opportunities to Prevent Pollution in San Joaquin Co.) group by participation in the Solutions for Compliance Workshop and the Environmental Excellence Awards, contacts with businesses are increasing. "Educational inspections" of commercial sites began this June, starting with auto related industries. By summer's end, the inspections will continue with the restaurant industry. An inspector conducts a walk-through each site to show business owners and managers effective BMPs, and provide an informative poster, fact sheet and brochures (both in English and Spanish). In addition, letters are mailed to specific industries throughout the year alerting them to BMPs that should be implemented
- f) With the completion of the Community Baseline Survey, the City now has some information from which to measure the effectiveness of the outreach effort. The next survey will be conducted in 2005.

### **3.9 Public Outreach and Education Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program. The City also determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the Public Outreach and Education Program during the next fiscal year as part of the Annual Work Plan include the following:

- City Stormwater Outreach Staff will work toward developing and installing placards for 95% of the storm drain catch basins in place of stenciling the City's drains. The placards will be more permanent.
- An enhanced method of tracking incoming complaint calls to the City's Service Center will be developed.
- A fact sheet for proper disposal of pet waste will be developed for use at Community Events and for distribution at pet service businesses. Working with the City's Parks & Recreation Department, effort will be made to expand the placement of pet waste disposal stations at more municipal park sites.

## **4.0 – Municipal Operations Program Element**

### **4.1 Overview**

As part of its normal operations, the City conducts a number of activities (e.g., storm drain cleaning, green and solid waste disposal, street sweeping, etc.) that can generate or mobilize pollutants. The purpose of the Municipal Operations Program Element is to ensure that these operations and maintenance (O&M) activities are performed in a way that minimizes the pollutants generated as well as the potential for pollutants to enter the storm drain system.

The City has developed a comprehensive municipal operations program that is presented in Section 4 of the SWMP. Additional information is included within each of the Program Control Measures.

### **4.2 Control Measures**

The City has developed several Control Measures to ensure that the municipal operations related permit requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Municipal Operations Program Control Measures consist of the following:

<b>ID</b>	<b>Control Measure</b>
MO1	Sanitary Sewer Overflow Response Plan
MO2	Construction Requirements for Municipal Capital Improvement Projects
MO3	Pollution Prevention at Municipal Facilities
MO4	Landscape and Pest Management
MO5	Storm Drain System Maintenance
MO6	Street Cleaning and Maintenance
MO7	Parking Lot Maintenance
MO8	Emergency Procedures

In addition to the Control Measures listed above, a number of the activities conducted pursuant to the other program element requirements such as the Public Outreach and Education Program (Section 3), Construction (Section 6), Planning and Land Development Program (Section 7) and Training Program (Section 10) also support and provide guidance for the Municipal Operations Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Municipal Operations Program Performance Standards and implementation schedules.

### 4.3 MO1 Sanitary Sewer Overflow Response Plan

The Sanitary Sewer Overflow (SSO) Response Plan minimizes potential impacts from sanitary sewer overflows and spills and consists of three basic steps including: investigation of complaints, response and containment, and notification to appropriate sewer and public health agencies. Follow-up to an overflow or spill includes procedures for containing and cleaning up spills and leaks that enter the storm drain system. In addition, repair and remediation activities for the sanitary sewer are also outlined in the Control Measure.

The City and its contractor, OMI-Thames Water Stockton, have had to address Regional Board's concerns regarding SSO reporting. In response to these concerns the City has proposed a new performance standard to develop and implement a SSO Response Plan. In addition, the City's current program to limit infiltration of seepage from sanitary sewers uses a combination of inspection to ensure proper construction of sanitary systems, televising of existing storm drain lines, reporting by experienced maintenance personnel and dry weather sampling. During the construction phase, regular inspection ensures verification of leak testing, no cross connections and televised final checks of construction quality. As a result, the City developed a performance standard that addresses the need to continue the cross connection review.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 4.3.1 Performance Standard – Develop and Implement a Sanitary Sewer Overflow (SSO) Response Plan

The City implemented a sanitary sewer overflow response plan. In general, the response plan prevents SSOs from entering the storm drain system and includes reporting information so that the appropriate agencies are notified when these spills occur.

- a) Did the City review and update the SSO response plan during the year?

Yes, reviewed – no modifications  Yes, reviewed and modified  No

If **yes, review and modified**, summarize the modifications that were made:

The revised SSO Response Plan addresses two basic conditions:

- SSOs that are greater than 1,000 gallons or SSOs of any volume that discharge to surface waters.
- SSOs less than 1,000 gallons and that do not discharge to surface waters.

See Appendix D-1 for a copy of the City's SSO Response Plan.

**4.3.2 Performance Standard – Continue to Respond to Sanitary Sewer Overflows (SSOs)**

The City maintains a complaint hotline and responds to sanitary sewer overflow complaints and/or notifications in a timely manner.

- a) Did the City continue to respond to sanitary sewer overflows throughout the year?  
 Yes  No

- b) A summary of the sewer overflows is provided below.

<b>Total Number of SSOs</b>	<b>Total Number of SSOs that Entered the Storm Drain System</b>	<b>Total Number of SSOs that Entered a Receiving Water</b>
277	94	8

See Appendix D-2 for a summary of reported SSOs.

**4.3.3 Performance Standard – Continue Cross Connection Review**

The City implements a number of measures to ensure that cross connections between the sewer and storm drain lines do not occur and, if they do occur, that they are eliminated as soon as they are discovered.

- a) Did the City review construction projects and ongoing field maintenance activities for potential cross connections?

Yes  No

- b) Did the City conduct follow up activities in areas where cross connections were suspected (televise sewer and/or storm drain lines, conduct additional source investigations, etc.)?

Yes  No

- c) A summary of the cross connection related activities is provided below.

	<b>Total Number of Cross Connections Identified</b>	<b>Total Number of Cross Connections Eliminated</b>
<b>Last Year</b>	0	0
<b>This Year</b>	0	0

**4.4 MO2 Construction Requirements for Municipal Capital Improvement Projects**

The Construction Requirements for Municipal Capital Improvement Projects Control Measure provides protocols to be followed in the design and construction phases of capital projects

undertaken by the City. The City follows the Development Standards and Construction Program Element requirements for all capital improvement projects (CIP), and obtains coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit) for projects over one acre in size.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

**4.4.1 Performance Standard – Review CIP Designs to Ensure Specifications and Notes are Included**

The City requires that all CIP are reviewed by stormwater staff to ensure that the Construction BMPs and New Development standards are incorporated during the design stage.

- a) Did stormwater staff review all CIPs to ensure that the Construction BMPs and New Development standards (when applicable) were included during the design stage?

Yes  No

Total Number of CIP Plans Reviewed	Total Number of CIP Plans Requiring Revisions
19	19

**4.4.2 Performance Standard – Require Submission of NOI for CIP Greater Than 1 Acre**

The City requires that CIP projects greater than 1 acre obtain coverage under the Construction General Permit.

- a) Did CIPs that were greater than one acre submit an NOI?

Yes  No

Total Number of Active Public Construction Sites	Total Number of Active Public Construction Sites that > 1 acre	Total Number of Active Sites that Submitted an NOI
19	2	2

**4.5 MO3 Pollution Prevention at City Facilities**

Storm Water Pollution Prevention Plans (SWPPPs) include a site description and identify BMPs that address potential sources of pollutants to storm drains. Developing and implementing a

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SWPPP at the City's corporation yard(s) ensures that pollutants entering the storm drain are minimized to the maximum extent practicable (MEP).

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

4.5.1 Performance Standard – Implement SWPPPs

The City requires the implementation of the SWPPP for the corporation yard and other facilities as necessary.

a) Did the City continue to implement the SWPPPs that have been developed?

Yes  No

b) Did the City modify any of the SWPPPs?

Yes  No

c) Were each of the facilities inspected annually to ensure that the SWPPPs were being implemented and the BMPs identified maintained?

Yes  No

4.5.2 Performance Standard – Review CIP Projects for Wash Areas

The City will review capital improvement projects lists to identify those projects for new or existing municipal facilities that have vehicle or equipment wash areas. The wash areas will be required to be either self contained (through the implementation of BMPs) or connected to a clarifier or alternative pre-treatment device and plumbed to the sanitary sewer.

a) Did the City review CIP lists and identify those projects that have vehicle or equipment wash areas?

Yes  No

Total Number of CIPs Reviewed	Total Number of CIPs with Vehicle or Equipment Wash Areas
19	0

b) Did the City require that those CIPs that have vehicle or equipment wash areas implement BMPs or connect it to the sanitary sewer?



Yes  No  N/A

Total Number of CIPs Required to Implement BMPs	Total Number of CIPs Required to Connect to Sanitary Sewer	Total Number of Projects Completed
0	0	0

#### 4.6 MO4 Landscape and Pest Management

The Landscape and Pest Management Control Measure assists in making sure that the City's use and storage of fertilizers, herbicides, and pesticides is in compliance. BMPs appropriate to the Control Measure promote the use of integrated pest management (IPM), and retention and planting of native plant species requiring less water and chemical augmentation to remain healthy.

Since the City's Golf Courses Non-Stormwater Discharge Prevention program could serve as a model for a City-wide landscape and pest management program, the City developed a performance standard that addresses the need to consider expanding the golf course procedures to all City parks.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

##### 4.6.1 Performance Standard – Consider Expanding City Golf Course Procedures to Parks

The City of Stockton Golf Course procedures could serve as a model for a City-wide landscape and pest management program.

- a) Did the City review the Golf Course procedures as a potential model for the City parks (to be completed by **June 30, 2004**)?

Yes  No

- b) Were the procedures adopted as the model for the City Parks?

Yes  No

If **yes**, identify which parks will use the procedures:

See attached Parks and Recreation Department Landscape Management Procedures (Appendix D-3) dated January 2004 and Landscape Maintenance BMP MO-1 (Appendix D-4). This program applies to park sites, landscaped medians, and the golf courses.

**4.6.2 Performance Standard – Develop Pesticide, Herbicide and Fertilizer Application Protocols**

The City will develop protocols for routine and non-routine use of pesticides, herbicides, and fertilizers. The protocols will identify that staff:

- Should not apply pesticides or fertilizers immediately before, during, or immediately after a rain even or when water is flowing off the area or when fog is present if using spray application;
- Should not apply or store banned or unregistered pesticides;
- Should store fertilizer and pesticides indoors, or under cover on paved surfaces, or protected by secondary containment; and
- Should inspect storage areas annually

a) Did the City develop protocols for the routine and non-routine use of pesticides, herbicides, and fertilizers (*to be completed by June 30, 2004*)?

Yes  No

If **yes**, a copy of the protocols has been attached as

See attached Parks and Recreation Department Landscape Management Procedures (Appendix D-3) dated January 2004 and Landscape Maintenance BMP MO-1 (Appendix D-4). This program applies to park sites, landscaped medians, and the golf courses.

b) Have the protocols been implemented?

Yes  No

c) Provide the following information regarding the implementation of the **fertilizer protocols**

	<b>Total Number of Acres Treated with Fertilizers</b>	<b>Total Pounds of Nitrogen Applied</b>	<b>Total Pounds of Phosphorous Applied</b>
<b>Last Year</b>	963	603,078	603,078
<b>This Year</b>	963	603,078	603,078

The City's 55 parks are fertilized once a year, while the three City-owned and operated golf courses are fertilized three times a year.

d) Provide the following information regarding the implementation of the **pesticide protocols** (pesticides include herbicides, algecides, etc.)

	<b>Total Number of Acres Treated with Pesticides</b>
<b>Last Year</b>	325
<b>This Year</b>	325

<b>Name of Active Ingredient</b>	<b>Total Amount of Active Ingredient Applied <u>Last Year</u> (indicate units)</b>	<b>Total Amount of Active Ingredients Applied <u>This Year</u> (indicate units)</b>
Acetic acid	8.77 gallons	9.68 gallons
Bensulide	48.06 gallons	25.17 gallons
Benzoic acid	0	0
Chlorflurenol-methyl	0	0
Chlorothalonil	63.82 gallons	67.88 gallons
Chlorpyrifos	17.26 gallons	3.47 gallons
Clomazone	0	7.21 gallons
Clopyralid	0	0.65 gallons
Dicamba	14.82 gallons	1.15 gallons
Diquat dibromide	2.25 gallons	0.06 gallons
Dithianon	0	12 pounds
Etofenprox	5.34 pounds	0.05 pounds
Glyphosate	43.58 gallons	37.63 gallons
Iprodione	39.13 gallons	2.50 gallons
Mancozeb	75 gallons	
Methyl pyrimidin	5 pounds	2.20 pounds
Monosodium methanearsonate	2.97 gallons	7.5 gallons
Myclobutanil	3.33 gallons	3.33 gallons
Oryzalin	0	0
Oxadiazon	0	59 pounds
Propiconazole	0	1.72 gallons
Propionic acid potassium	78.64 gallons	78.64 gallons
Siduron	31 pounds	60.10 pounds
Trifloxystrobin	7.31 gallons	0.38 gallons

#### 4.6.3 Performance Standard – Implement an IPM Program

The City will implement an IPM program that will require the use of less toxic or non-toxic approaches to pest management.

a) Did the City develop an IPM program?

Yes  No

b) Did the City implement an IPM program? (to be initiated in 2004-2005)

Yes  No

c) Provide the following information regarding the implementation of the **IPM program**

	<b>Total Number of Acres Under the IPM Program</b>
<b>Last Year 2002-2003</b>	963 (573 parks, 390 golf courses)
<b>This Year 2003-2004</b>	963 (573 parks, 390 golf courses)

d) List the specific alternatives to pesticides that were employed by the pest control crews as a part of the implementation of the IPM program

**Weeds**

- Hand weeding/hoeing
- Mulch for suppression
- Fabric for suppression
- Adjust mowing height
- Improve Drainage
- Flaming
- Landscape Design
- Other \_\_\_\_\_

**Diseases**

- Irrigation
- Plant Selection
- Pruning
- Fertilization
- Landscape Design
- Other \_\_\_\_\_

**Insects**

- Biological Controls
- Plant Selection
- Pruning
- Physical Removal
- Landscape Design
- Other Released 50,000 lady bugs to combat aphids in the downtown area.

4.6.4 Performance Standard – Review and Revise Landscaping Standards

The City will review and modify, as necessary, the landscaping standards to promote:

- Planting and retention of native species; and
- Minimization of water use, pesticides, fertilizers, and herbicides

a) Did the City review/modify the landscaping standards? (to be completed by **June 30, 2005**)

Yes, reviewed – no modifications  Yes, reviewed and modified  No

If **yes, reviewed and modified**, briefly summarize the modifications that were made:

The City Parks and Recreation Dept. has modified its standards for future parks and landscaped medians to include natives within its plant selection. Such vegetation is more tolerant of the Central Valley’s dry, hot summers, requiring less water, and is more hearty against pests, reducing the need for pesticides.

4.6.5 Performance Standard – Require Contractors to Abide By Fertilizer and Pesticide Application Protocols

The City will require contractors to abide by the standardized application protocols.

- a) Does the City require the contractors to abide by the standardized application protocols?

Yes  No

**4.7 MO5 Storm Drain System Maintenance**

The Storm Drain System Maintenance Control Measure provides for the long-term performance and integrity of the City’s storm drain system. The Control Measure addresses the prioritization of catch basins for cleaning and maintenance, catch basin stenciling, special event requirements to prevent accumulation of trash and debris from catch basins as well as record keeping issues.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

4.7.1 Performance Standard – Implement the Catch Basin Maintenance Program

In the 2003 SWMP, the City included the maintenance procedures that had been developed for the catch basins. The maintenance procedures include prioritization protocols for catch basins, inspection and cleaning protocols and general information on record keeping of the waste that is removed.

- a) Did the City implement the catch basin maintenance program?

Yes  No

If **no**, indicate what the current status is for the implementation of the program

The City is planning to prioritize the catch basins discharging during FY 04/05. All catch basins in the City were inspected by City private contractor, OMI/Thames Water crews. Those catch basins that fell into the “High Priority” designation were cleaned within one week from the day they were reported. The prioritization and cleaning effort was combined with the stenciling project, so it covered the entire City not just lines with direct outfall to the receiving water.

- b) Did the City prioritize the catch basins discharging to a receiving water?

Yes  No  No Change From Previous Reporting Period

If **no**, indicate what the current status is for the prioritization.

The City is planning to prioritize the catch basins discharging during FY 04/05. The City has already prepared an outfalls map, which will facilitate the prioritization efforts.

- c) Were the high priority catch basins inspected and cleaned once prior to the wet season (between August – October)?

Yes  No

The City regularly cleans a number of catch basins annually regardless of catch basins prioritization. All clogged and partially clogged catch basins are cleaned first and prior to wet season.

Total Number of Catch Basins Inspected Annually	Total Number of Catch Basins Cleaned
14,558	593

- d) Provide the following regarding overall storm drain system maintenance activities

	Last Year 2002-2003	This Year 2003-2004
Total Length of Channel/Pipe Cleaned (linear feet)	142,840	24,761
Total Amount of Material/Debris Removed From Channels/Pipes (tons)	Not Tracked	275
Total Amount of Material/Debris Removed From Catch Basins (tons)	Not tracked	Not tracked

#### 4.7.2 Performance Standard – Implement the Pump Station Maintenance Program

In the 2003 SWMP, the City included the maintenance procedures that had been developed for the pump stations. The maintenance procedures include protocols for the pump station inspection and cleaning and general information on record keeping of the waste that is removed.

- a) Did the City implement the pump station maintenance program?

Yes  No

- b) Did the City inspect the pump stations annually and clean as necessary (a minimum of once every two years)?

Yes  No

Total Number of Pump Stations	Total Number of Pump Stations Inspected
69	69

c) Provide the following regarding overall pump station maintenance activities

	Last Year 2002-2003	This Year 2003-2004
Total Number of Pump Stations Cleaned	23	35
Total Amount of Material/Debris Removed (tons)	397	355

4.7.3 Performance Standard – Implement Dry Detention Basin Maintenance Program

In the 2003 SWMP, the City included the draft maintenance procedures that had been developed for detention basins. The guidelines include inspection and maintenance frequencies as well as BMPs to prevent slope erosion.

a) Did the City finalize the detention basin maintenance program? (*to be completed by **June 30, 2004***)

Yes  No

The finalized guidelines for maintaining detention basins are found in Appendix D-5.

b) Did the City implement the dry detention basin maintenance program? (*to be completed by **June 30, 2004***)

Yes  No

c) Does the City require contractors who perform these functions to implement the detention basin maintenance program that has been developed?

Yes  No

d) For dry detention basins indicate the following for the inspections that were conducted:

Total Number of Dry Detention Basins	Total Number of Inspections Conducted After Significant Storms	Total Number of Regular Inspections Conducted	Total Number of Inspections that Identified Problems
WP, Stockton <sup>1</sup> Airport, Airport Gateway, Arch Rd. and Charter Way (5)	8	28	2
Auto Center <sup>2</sup> Detention Basin (1)	1	12	2

Describe the types of problems encountered:

1. Fences were damaged at these detention basins twice. For more information regarding the extent of maintenance performed at these detention basins, refer to the attached Baylor Services letter (Appendix D-6).
2. Repaired the perimeter fence and the pump does not pump out basin after some storm due malfunction of float control or accumulation of debris against the bar rack.

e) Did the City conduct the maintenance activities per the schedule that is outlined within the Detention Basin Guidelines?

Yes  No

If yes, indicate the following for the maintenance activities that were conducted:

	Total Amount of Trash, Debris and Sediment that was Removed from the Fore bays (tons)	Total Amount of Accumulated Sediment Removed from the Basin (tons)
<b>Last Year 2002-2003</b>	0.25	101.5
<b>This Year 2003-2004</b>	0.25	110 from the Auto Center Detention Basin*

\* Information for the other detention basins is not available because Baylor Services was not able to remove the sediment due to water in the basin.

#### 4.7.4 Performance Standard – Develop and Implement Notification Procedures

A protocol will be developed and implemented so that responsible staff can be notified of and respond to the following:

- Illegible inlet stenciling or missing markers (to be re-stenciled in 180 days)
- Evidence of illicit connections or discharges as discovered by municipal field crews (respond within 2 business days)



- a) Were notification procedures developed and implemented?  
 (to be completed by **June 30, 2004**)

Yes  No

- b) Provide the following information regarding the catch basin stenciling program

<b>Total Number of Catch Basins</b>	14,558
<b>Total Number of Catch Basins Stenciled Prior to Reporting Period</b>	608
<b>Total Number of Catch Basins Stenciled For First Time by Municipal/Contract Staff During Reporting Period</b>	10,635
<b>Total Number of Catch Basins Stenciled For First Time by Volunteers During Reporting Period</b>	1,102
<b>Total Number of Catch Basins Stenciled To Date</b>	10,915

<b>Total Number of Catch Basins Re-Stenciled During Reporting Period</b>	280
--	-----

4.7.5 Performance Standard – Adopt Special Use Provisions

The City will develop special use provisions for the proper management of trash and litter at special events that can be reasonably expected to generate substantial quantities of trash and litter.

- a) Did the City develop and adopt the special use provisions? (to be completed by **June 30, 2004**)

Yes  No

An example of the City's special events contract is included in Appendix D-7.

If **yes**, indicate the following:

<b>Total Number of Events Required to Obtain Special Use Permits</b>	<b>Total Number of Events Required to Comply with the Special Use Provisions for Trash/Debris</b>
180	42

#### 4.8 MO6 Street Cleaning and Maintenance

The Street Cleaning and Maintenance Control Measure ensures that City streets are maintained and cleaned to reduce pollutants to the maximum extent practicable (MEP). In conducting the Control Measure, the City will prioritize the streets or segments of streets based on the required level of maintenance.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

##### 4.8.1 Performance Standard – Implement the Revised Street Sweeping Program

The City will implement the revised street sweeping program based on the prioritization and schedule identified within the SWMP.

a) Did the City implement the revised street sweeping program?

Yes  No

If **yes**, indicate the following:

##### Prioritization Summary

Total Length Swept (curb miles) for Streets/Street Segments Designated As		
High Priority (A)	Medium Priority (B)	Low Priority (C)
14,819	8891	5928

b) Did the City sweep the streets according to the following frequencies?

Downtown (& parking lots)	Two times per month	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	More Frequently <input type="checkbox"/>
Residential	Once per month	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	More Frequently <input type="checkbox"/>
Industrial	Once per month	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	More Frequently <input type="checkbox"/>
Commercial	Once per month	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	More Frequently <input type="checkbox"/>
Open Space	As necessary	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	More Frequently <input type="checkbox"/>

	Total Curb Miles Swept	Total Amount of Debris Removed by Street Sweeping (tons)	Total Amount of Garden Refuse Collected (tons)
<b>Last Year</b>	31,694	2,973	33,530
<b>This Year</b>	29,638	3,327	31,022

##### 4.8.2 Performance Standard – Develop Road Maintenance and Small Construction BMPs

The City will develop BMPs for road maintenance and small construction projects to ensure that:

- Wastewater from street sweeping is not discharged to the MS4;
- Saw cutting wastes are recovered and disposed of properly and that waste is not left on a roadway or allowed to enter the storm drain;
- Concrete and other street and road maintenance materials and wastes are properly managed and are not allowed to enter the storm drain; and
- Concrete trucks and chutes are only washed out in designated areas and discharge is not allowed to enter the storm drains, open ditches, streets, or catch basins.

a) Did the City develop the BMPs for road maintenance and small construction projects?

Yes  No

BMP fact sheets for Street Cleaning and Maintenance will be prepared during FY 2004/05.

#### **4.9 MO7 Parking Lot Maintenance**

The Parking Lots Maintenance Control Measure helps to keep parking lots clear of debris and prevents excessive oil buildup. The Control Measure establishes a schedule of cleaning and inspecting the parking lots.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

##### 4.9.1 Performance Standard – Implement the Parking Lot Maintenance BMP Fact Sheet

The City will implement the parking lot maintenance BMPs identified within the fact sheet.

a) Did the City implement the BMPs for parking lot maintenance and cleaning?

Yes  No

##### 4.9.2 Performance Standard – Inspect Municipally Owned Parking Lots

The City will inspect municipally owned parking lots annually and address deficiencies as needed.

a) Did the City inspect the parking lots on an annual basis?

Yes  No

### Inspection Summary

Total Number of Municipally Owned Parking Lots	Total Number of Inspections Conducted
13	Quarterly until June, then twice a week

Parking Lot BMPs have been developed by the City and are available in Appendix D-7 of the SWMP.

#### 4.10 MO8 Emergency Procedures

The Emergency Procedures Control Measure outlines the response and responsibilities of the Stormwater Management Division following a natural disaster. These activities will not compromise public safety.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

##### 4.10.1 Performance Standard – Coordinate Repair of Public Services in Emergencies

The City will coordinate with other agencies as necessary to repair essential public services and infrastructure in a manner to minimize environmental damage but does not compromise public health and safety in the event of emergency situations.

- a) Did the City coordinate with other agencies as necessary to identify and develop procedures for the repair of public services during emergencies that would be protective of water quality (*to be completed by June 30, 2006*)?

Yes  No

##### 4.10.2 Performance Standard – Review/Update Fire Department Activity Procedures

The City will review and update as necessary Fire Department procedures to minimize environmental damages during emergency and non-emergency activities.

- a) Did the City review and/or update the Fire Department procedures for emergency and non-emergency activities (*to be completed by June 30, 2004*)?

Yes  No

See Appendix D-8 for a copy of the City's emergency and non-emergency Fire Department Procedures.

#### **4.11 Municipal Program Assessment**

In order to determine the effectiveness of the Municipal Operations Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Municipal Program:

- a) The City continued to review construction projects and maintenance activities for possible cross connections. Follow-up activities did not reveal the presence of any cross connections.
- b) Municipal staff have also been responsive by ensuring that the best management practices identified within the stormwater pollution prevention plan were implemented at the corporation yard.
- c) The City developed Landscape Maintenance Procedures applicable to parks, landscaped medians, and golf courses. These procedures include standard protocols for the application of fertilizers and pesticides. In addition, the City continued to implement an integrated pest management program.
- d) Municipal staff implemented a number of BMPs to maintain the storm drain system and protect water quality. These activities included:
  - Inspection of all catch basins and cleaning of 593 catch basins;
  - Removal of approximately 275 tons of material from the channels/pipes;
  - Inspection and cleaning of 35 pump stations (compared to 23 the previous year) resulting in approximately 355 tons of material being removed;
  - Regular inspections and maintenance at the City's dry detention basins; and
  - Stenciled approximately 75% of the catch basins in the City at least once.
- e) Special use permits include provisions for the proper management of trash and litter.
- f) The street sweeping program resulted in the removal of 3327 tons of debris (compared to 2973 last year)

g) The City development procedures to address Fire Department activities.

#### **4.12 Municipal Operations Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

- Assess whether a method to track waste removed from catch basins can be developed.

## **5.0 – Industrial and Commercial Businesses Program Element**

### **5.1 Overview**

The purpose of the Industrial and Commercial Businesses Program Element is to effectively prohibit unauthorized non-stormwater runoff and ensure that stormwater runoff is in compliance with local ordinances and permits. This is accomplished by:

- Tracking;
- Inspecting, and
- Ensuring compliance at industrial and commercial businesses identified as potentially significant sources of pollutants in stormwater.

The City has incorporated all of the above tasks as a part of the comprehensive industrial and commercial businesses program that is presented in Section 5 of the SWMP. Additional information is included within each of the Program Control Measures.

### **5.2 Control Measures**

The City has developed several Control Measures to ensure that the industrial and commercial businesses program requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Industrial and Commercial Businesses Program Control Measures consist of the following:

<b>ID</b>	<b>Control Measure</b>
IC1	Business Inventory
IC2	Prioritizations and Inspections
IC3	Industrial/Commercial Facility BMP Implementation
IC4	Progressive Enforcement and Referral Policy

In addition to the Control Measures listed above, a number of activities conducted by the Public Outreach and Education Program (Section 3) and Training Program (Section 10) also support the Industrial and Commercial Businesses Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Industrial and Commercial Businesses Program Performance Standards and implementation schedules.

### 5.3 IC1 Business Inventory

The Business Inventory Control Measure ensures that the City develops and maintains a complete database of businesses that have the potential to impact stormwater or receiving water quality. The database inventory provides the basis for prioritization of businesses within the City and serves as a repository for all outreach, inspection, and notices for each facility.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 5.3.1 Performance Standard – Continue to Update Inventory

The City maintains an inventory database of commercial and industrial businesses, including those covered under the State’s Industrial Storm Water General Permit.

- a) Did the City update the inventory throughout the year?

Yes  No

- b) A summary of the inventory is provided below. The inventory information is current as of June 30, 2004.

**Inventory Summary**

	<b>Total # of Facilities Last Year 2002-2003</b>	<b>Total # of Facilities This Year 2003-2004</b>	<b>Total Number of Facilities with No Exposure (subset of Total)</b>	<b>Total Number of Facilities with No Discharge to Storm Drain System* (subset of Total)</b>	<b>Total Number of Facilities To Be Inspected** (Enter # into Table 5.4.3 a)</b>
<b>Industrial Facilities</b>	392	392	0	0	392
<b>Commercial Facilities (Significant Sources)</b>	1498	983	0	0	1023
<b>(Intermittent Sources)</b>	355	355	Not Inspected	Not Inspected	None

\* Facilities that do not discharge to the municipal separate storm drain system (e.g. all stormwater is contained on site or they discharge to a receiving water) do not have to be inspected by municipal staff

\*\* # of Facilities to be Inspected = Total # of Facilities – [# Facilities with No Exposure + # Facilities with No Discharge]



**Commercial Summary**

<b>Category</b>	<b>Total Number of Facilities 2002-03</b>	<b>Total Number of Facilities 2003-04</b>
<b>Significant Sources</b>		
<b>Auto Body Shops</b>	33	33
<b>Auto Dealers</b>	89	68
<b>Auto Repair Shops</b>	151	137
<b>Dry Cleaners</b>	28	27
<b>Equipment Rentals</b>	10	10
<b>Kennels</b>	7	7
<b>Nurseries</b>	1	1
<b>Restaurants</b>	1068	665
<b>Retail Gasoline Outlets</b>	55	74
<b>Other (Facilities with History of Illicit Discharges, etc.)</b>	0	0
<b>Total</b>	<b>1442</b>	<b>1023</b>
<b>Temporary/Intermittent Sources</b>		
<b>Automotive Washing and Detailing</b>	30	30
<b>Carpet Cleaning</b>	21	21
<b>Commercial Pesticide Applicators</b>	5	5
<b>Concrete Pouring Contractors</b>	12	12
<b>Concrete Cutting</b>	1	1
<b>General Building Contractors</b>	21	21
<b>Landscape Installation/Maintenance</b>	193	193
<b>Paint Contractors</b>	47	47
<b>Portable Toilet Rental and Maintenance</b>	2	2
<b>Pressure Washing</b>	1	1
<b>Street Sweepers</b>	1	1
<b>Swimming Pool Contractors</b>	3	3
<b>Swimming Pool Maintenance Providers</b>	18	18
<b>Total</b>	<b>355</b>	<b>355</b>

The inventory summaries for industrial facilities and commercial businesses are included in Appendixes E-1 and E-2 respectively.

- c) A summary of the major changes that occurred during the reporting year is provided below.

The City commercial program has been implemented. Inspections were conducted for several businesses during 2003/04. There was a significant reduction in the number of restaurants, auto dealers, and auto repair shops in the inventory from 2002/03 to 2003/04. This was due to a number of facilities that went out of business or did not come under the categories of commercial facilities that would potentially impact stormwater or receiving water quality.

### 5.3.2 Performance Standard – Perform Internal Audit on Database

The inventory is audited every two years to ensure that it remains accurate.

- a) Did the City conduct an audit to verify the accuracy of the industrial and commercial businesses database? (*first audit to be completed by **June 30, 2005**, second audit to be completed by **June 30, 2007*** )

Yes  No, only required every two years

## **5.4 IC2 Prioritizations and Inspections**

The Prioritization and Inspections Control Measure establishes a procedure for prioritizing businesses within the City for inspection as well as the inspection requirements associated with the site visits. The inspections ensure that:

- The facility operator has pertinent educational materials;
- The operator complies with the City ordinances;
- Unauthorized non-stormwater discharges do not occur; and
- Illicit connections are not evident.

Inspection of facilities covered under the State's Industrial Storm Water General Permit are performed to ensure the operator has a current Waste Discharge Identification (WDID) number, the Stormwater Pollution Prevention Plan (SWPPP) is available on site, and the operator is effectively implementing BMPs in compliance with City ordinances.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

### 5.4.1 Performance Standard – Identify and Prioritize Businesses

The City developed new procedures for prioritizing industrial and commercial businesses for inspection frequency. As modified, the City considers all industries and businesses specifically listed in the Permit (e.g. State Industrial General Permit holders, auto body shops, etc.) as high priority sites and inspects each twice in the five year Permit cycle. All other businesses are considered low priority and inspected as needed. If the City encounters a business that may pose a threat to water quality, the business is evaluated using the prioritization evaluation criteria and

ranking system.

- a) Did the City prioritize businesses encountered throughout the year that may pose a threat to water quality?

Yes  No

- b) A summary of the prioritizations is provided below. The information is current as of June 30, 2004.

**Prioritization Summary**

<b>Category</b>	<b>Total Number of Facilities Prioritized As High</b>	<b>Total Number of Facilities Prioritized As Low</b>
<b>Industrial Facilities</b>	392	0
<b>Commercial Facilities</b>	TBD*	TBD*

\* A total of 1023 commercial facilities have been identified but not yet prioritized.

- c) Did the City incorporate the newly prioritized businesses into the overall industrial/commercial database?

Yes  No

The City reviewed all commercial facilities and reduced the overall list from 1442 that originally existed in the database down to 1023 facilities. The City is planning to inspect all these facilities but has not categorized them as Low or High priority.

5.4.2 Performance Standard – Update Inspection Checklists

In order to ensure that the inspectors conduct thorough and consistent inspections, a checklist was developed. The checklist includes five major categories including: administrative evaluation, indoor inspection, outdoor inspection, inspection of specific areas of concern, and other areas of concern.

The Checklist will be updated to include the following information:

- The stormwater discharge is in compliance with local ordinances and permits (sources to be inspected may include industrial processes; equipment and vehicle maintenance and storage; equipment, vehicle, and surface washing; raw material and product handling and storage; solid waste handling and storage; and hazardous waste handling and storage);
- Unauthorized non-stormwater discharges do not occur at the facility;
- Illicit connections are not evident;
- The operator is effectively implementing BMPs in compliance with local ordinances.

The checklist is periodically updated to include additional information relevant to carrying out an effective inspection and enforcement program.

a) Did the City modify the Inspection Checklist? (to be completed by **June 30, 2004**)

Yes  No

If **no**, provide a brief update regarding the status of the modifications or explain why the modifications are not necessary:

The City reviewed the existing Industrial Inspection Checklist (Appendix E-3) and found no modifications were necessary during this reporting period. However, the City generated a new Evaluation Checklist (Appendix E-4) for commercial facilities that is currently being used during the inspection of those facilities.

#### 5.4.3 Performance Standard – Inspect High Priority Industrial and Commercial Businesses

The industries and businesses specifically listed in the Permit (e.g. State Industrial General Permit holders, auto body shops, etc.) are high priority sites and inspected twice (with at least a one year period in between) during the permit term with the first inspection occurring by July 1, 2005. All other businesses are considered low priority and inspected as needed.

It should be noted that, although facilities that have been identified as having “No Risk of Exposure” to stormwater or “No Discharges” to the municipal storm drain system are still included within the inventory, they do not require inspections.

a) A summary of the inspections that were completed for the high priority sites during the permit term is provided below.

**Industrial Inspection Summary – High Priority Facilities**

Cycle (Calendar Years)	Total Number of Industrial Facilities Requiring Inspection (See Table in 5.3.1.b)	Total Number of Industrial Facilities Inspected		Inspection Results		
		by <u>City</u>	by <u>RWQCB</u>	Number of Facilities Adequately Implementing BMPs	Number of Facilities Requiring Additional BMPs	% of Facilities Inspected by City Adequately Implementing BMPs
<b>First Cycle* (2004/2005)</b>	392	155	0	98	57	63.10
<b>2004/05</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Second Cycle (2005/2006)</b>						
<b>2006/07</b>						

**Commercial Inspection Summary (Reporting Year 2003/04) (facilities not prioritized)**

Category	Total Number of Facilities Requiring Inspection(See Table in 5.3.1.b)	Number of Facilities Inspected	Inspection Results		
			Number of Facilities Adequately Implementing BMPs	Number of Facilities Requiring Additional BMPs	% of Facilities Adequately Implementing BMPs
<b>Auto Body Shops</b>	33	14	9	5	64%
<b>Auto Dealers</b>	68	38	36	2	95%
<b>Auto Repair Shop</b>	137	137	107	30	78%
<b>Dry Cleaners</b>	28	0	Not Inspected	Not Inspected	N/A
<b>Equipment Rentals</b>	10	1	1	Not Inspected	N/A
<b>Kennels</b>	7	0	Not Inspected	Not Inspected	N/A
<b>Nurseries</b>	1	0	Not Inspected	Not Inspected	N/A
<b>Restaurants</b>	665	0	Not Inspected	Not Inspected	N/A
<b>Retail Gasoline</b>	74	51	50	1	98%
<b>Other</b>	0	0	None	None	N/A

\*First cycle to be completed by June 30, 2005

b) Did the City complete the first inspection for all high priority industrial and commercial facilities?

Yes  No – first inspection to be completed by June 30, 2005

If partial, percent of cycle completed 28%

c) Did the City complete the second inspection for the high priority industrial and commercial facilities?

Yes  No – second inspection to be completed by June 30, 2007

If partial, percent of cycle completed 0%

d) The low priority sites are inspected as needed. As indicated below, no inspections were completed for the low priority sites.

**Commercial Inspection Summary – Temporary Intermittent Sources  
 (Low Priority Facilities)**

<b>Type of Facility</b>	<b>Total Number Inspected</b>
<b>Automotive Washing/Detailing</b>	0
<b>Carpet Cleaning</b>	0
<b>Commercial Pesticide Applicators</b>	0
<b>Concrete Pouring Contractors</b>	0
<b>Concrete Cutting</b>	0
<b>General Building Contractors</b>	0
<b>Landscape Installation/Maintenance</b>	0
<b>Paint Contractors</b>	0
<b>Portable Toilet Rental/Maintenance</b>	0
<b>Pressure Washing</b>	0
<b>Street Sweepers</b>	0
<b>Swimming Pool Contractors</b>	0
<b>Swimming Pool Maintenance</b>	0
<b>Other</b>	0

The low priority facilities are not significant sources of pollutants in stormwater. The City will inspect them on as-needed basis. The inspection will be performed only if (1) there is a complaint filed; (2) a phone call is received regarding the discharge of potential pollutants into storm drain from these facilities; or (3) City field staff identifies a suspicious discharge.

#### 5.4.4 Performance Standard – Develop Business Specific Checklist

Since there are a number of different types of high priority industrial and commercial businesses, a business specific checklist will be developed for commercial businesses using the current facility checklist as a model.

- a) Did the City develop a Business Specific Checklist? *(to be completed by **June 30, 2004**)*

Yes  No

If **no**, provide a brief update regarding the status of the modifications or explain why the modifications are not necessary:

The City reviewed the existing Industrial Inspection Checklist and found no modifications were necessary during this reporting period. However, the City generated a new Evaluation Checklist (Appendix E-4) for commercial facilities, which is currently being used during the inspection of those facilities. The new checklist covers the majority of commercial businesses such as Vehicle Washing/Detailing Operations, Vehicle Maintenance/Repair Facilities, Food Services Facilities, and other general notes apply to all facilities.

#### **5.5 IC3 Industrial/Commercial Facility BMP Implementation**

The BMP Implementation Control Measure requires commercial/industrial dischargers to control pollutants in stormwater discharges to the maximum extent practicable (MEP), and effectively prohibit unauthorized non-stormwater discharges to the storm drain system. Although the City may provide guidance on BMP selection, the selection of specific BMPs to be implemented is the responsibility of the discharger.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

##### 5.5.1 Performance Standard – Develop BMP Fact Sheets

In order to assist the industrial and commercial owners/operators in selecting and implementing the appropriate types of BMPs, the City will develop BMP Fact Sheets for the industrial and commercial businesses determined to be high priority.

- a) Did the City develop BMP Fact Sheets? *(to be completed by **June 30, 2005**)*

Yes, completed  Yes, partially completed  No

If **yes**, identify which Fact Sheets were completed

Copies of these Fact Sheets were provided in Appendix C of the San Joaquin County 2003/04 Annual Report.

**High Priority Industrial and Commercial Facilities**

Category	BMP Fact Sheets Developed
<b>Industrial</b>	
<b>Industrial Facilities*</b>	No
<b>Commercial - Significant Sources</b>	
<b>Auto Body Shops</b>	Yes
<b>Auto Dealers</b>	Yes
<b>Auto Repair Shops</b>	Yes
<b>Dry Cleaners</b>	Yes
<b>Equipment Rentals</b>	Yes
<b>Kennels</b>	Yes
<b>Nurseries</b>	Yes
<b>Restaurants</b>	Yes
<b>Retail Gasoline Outlets</b>	Yes

\*See explanation below.

If **no**, provide a brief update regarding the status of the development of the BMP Fact Sheets

The high priority industrial facilities come under General Industrial Permit and each facility based on its unique industrial processes requires generating its own applicable BMP Fact Sheets per the SWPPP. Therefore, the City has no plan to generate BMP Fact Sheets for industrial facilities. At the same time the City may refer the industrial facility to appropriate reference material including the California BMP Handbooks produced by the California Stormwater Quality Association.

5.5.2 Performance Standard – Distribute BMP Fact Sheets During Inspections

The City will distribute the BMP Fact Sheets to the facility owners/operators as a part of the inspection procedures.

a) Did the City distribute BMP Fact Sheets as a part of the inspection procedures?

Yes  No, inspections were not conducted this year and/or the BMP Fact Sheets were not completed

If **yes**, identify how many Fact Sheets were distributed



**High Priority Industrial and Commercial Facilities**

Category	Total Number BMP Fact Sheets Distributed
<b>Industrial</b>	
<b>Industrial Facilities</b>	None
<b>Commercial – Significant Sources</b>	
<b>Auto Body Shops</b>	14
<b>Auto Dealers</b>	38
<b>Auto Repair Shops</b>	137
<b>Dry Cleaners</b>	Not Inspected
<b>Equipment Rentals</b>	Not Inspected
<b>Kennels</b>	Not Inspected
<b>Nurseries</b>	Not Inspected
<b>Restaurants</b>	Not Inspected
<b>Retail Gasoline Outlets</b>	51

**5.6 IC4 Progressive Enforcement and Referral Policy**

The Progressive Enforcement and Referral Policy Control Measure sets policy for handling industrial and commercial businesses found to be out of compliance with local ordinances. The Control Measure outlines the process for the progressive levels of enforcement applied to facility operators not complying with City ordinances. The Control Measure also establishes the protocol for referring apparent violations of facilities subject to the State’s General Industrial Permit to the Regional Board.

Enforcement actions range from issuance of verbal warnings, Field Notices of Non-Compliance, Administrative Compliance Orders and Cease and Desist Orders and legal action. For repeat offenders or contractors that have not filed appropriate applications, the referral policy includes notifying the Regional Board.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

5.6.1 Performance Standard – Implement Progressive Enforcement and Referral Policy

A Progressive Enforcement Policy was developed and submitted with the September 2003 SWMP and is now being implemented.

- a) The table below provides a summary of the numbers and types of enforcement actions that have been taken for violations during the reporting period:

	Administrative Remedies				Legal Action
	Verbal Warnings	Notice of Noncompliance	Administrative Compliance Orders	Cease and Desist Orders	Type (Misdemeanor, Infraction, Etc.)
Total Number		47	0	0	1

Total number of enforcement actions taken during this reporting period - 1

The forty seven (47) Notice of Noncompliance listed above were written memos sent to the facilities for minor BMP maintenance corrections or general BMP recommendations to improve Storm Water Pollution Prevention Program. Those recommendations did not require enforcement actions/follow up inspections.

#### 5.6.2 Performance Standard – Modify Database for Better Tracking of Enforcement Actions

In order to ensure that the database adequately tracks the enforcement actions that occur at industrial and commercial businesses, the database will be reviewed and modified as needed.

a) Did the City review/modify the industrial/commercial database?

Yes, reviewed – no modifications  Yes, reviewed and modified  No

If **yes, reviewed - no modifications or no**, provide a brief update regarding the status of the modifications or explain why the modifications are not necessary:

The City is planning to review the industrial/commercial database during the FY 2004-2005 and make the necessary modifications to the database to provide adequate tracking of enforcement actions and follow up inspections.

#### 5.6.3 Performance Standard – Develop Procedures for Responding to RWQCB Complaints

The City shall develop a mechanism for responding to complaints for industrial and commercial businesses by the Regional Board to insure inspections occur within two business days.

a) Did the City develop a mechanism for responding to complaints within two business days?

Yes  No

If **yes**, summarize the mechanism that was developed:

See Appendix E-5 for a copy of the Storm Water Division Complaint Form.

#### 5.6.4 Performance Standard – Review Industrial Referral Procedures to Regional Board

Review and modify, as necessary, the procedures for informing the Regional Board of violations at industries covered by the State's Industrial Storm Water General Permit.

a) Did the City review/modify the referral procedures? *(to be completed by **June 30, 2004**)*

Yes, reviewed – no modifications  Yes, reviewed and modified  No

If **yes, reviewed, no modifications or no**, provide a brief update regarding the status of the modifications or explain why the modifications are not necessary:

There is adequate referral procedures outline in the City’s existing NPDES permit and the City Storm Water Management and Discharge Control Ordinance that provides us the mechanism to effectively inform the Regional Board of any violations.

The City must refer industrial business violations to the Regional Board under three circumstances:

- If a facility fails to respond to progressive enforcement actions;
- If an industrial facility receives a notice for a significant violation under the City’s stormwater ordinance; or
- If it is determined that a site should obtain coverage under the General Industrial Permit (non-filers)

The referral is made in writing within 30 days of the inspection that led to the notice of violation or the discovery of the non-filer.

Cause of Referral	Total Number <i>(See the summary below)</i>
Progressive Enforcement	0
Significant Violations	0
Potential Non-Filers	0

A summary of the Industrial facility referrals that were made during the reporting period is included below:

**Progressive Enforcement**

Site Description <i>(Type of Industrial Business, etc.)</i>	Progressive Enforcement Actions Taken	Date of Referral
None		

**Significant Violations**

Site Description <i>(Type of Industrial Business, etc.)</i>	Enforcement Action(s) Taken	Date of Referral
None		

**Potential Non-Filers**

Site Description <i>(Type of Industrial Business, etc.)</i>	Date of Referral
None	

## 5.7 Industrial and Commercial Businesses Program Assessment

In order to determine the effectiveness of the Industrial and Commercial Businesses Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Industrial and Commercial Program:

- a) Regarding the industrial facilities the following observations are provided:
  - Appropriate BMPs were adequately implemented at 63% of the facilities and were being maintained. During FY 03/04 City inspection it was determined that approximately 99% (117/118) of industries that should have been covered by the State General Permit were already covered.
  - The forty seven (47) written memos sent to the Facilities were for minor BMP maintenance corrections or general BMP recommendations to improve Storm Water Pollution Prevention Program. Those recommendations did not require enforcement actions/follow up inspections.
  - There was only one (1) non-filer referral to RWQCB.
  - The City provides additional information to the industrial facilities as needed and as appropriate to better educate the facility owner/operator.
  
- b) Regarding the commercial businesses the following observations are provided:
  - Retail gasoline outlets and auto dealers showed a very high rate of adequately implementing BMPs (98% and 95% respectively);
  - Auto body shops and auto repair shops showed a lower rate of successful BMP implementation but still the majority of the businesses were implementing BMPs (64% and 78% respectively).
  - The City provided BMP Fact sheets to all businesses inspected.

- c) It appears that the inspections and general outreach efforts have been effective in conveying the stormwater program requirements to the facility and business owner/operators.

## **5.8 Industrial and Commercial Businesses Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the Industrial and Commercial Businesses Program during the next fiscal year include the following:

- The City will review the industrial/commercial database during the FY 2004-2005 and make the necessary changes to the database to adequately report on all required aspects of the Industrial and Commercial Program.

## **6.0 - Construction Program Element**

### **6.1 Overview**

The purpose of the Construction Program Element is to reduce pollutants from construction sites during all construction phases. This is accomplished by:

- Providing adequate legal authority to control pollutants from construction sites with land disturbance of one acre or more;
- Reviewing construction plans and issuing grading permits consistent with local requirements;
- Maintaining a tracking system (inventory) of active construction sites;
- Requiring BMPs to control sediment and pollutants from construction sites;
- Inspecting construction sites to ensure proper implementation of BMPs and compliance with local requirements;
- Bringing forth enforcement actions for sites in violation of local requirements and advising the Regional Board of apparent violations of the General Permit for Discharges of Storm Water associated with Construction Activity (hereafter “Construction General Permit”) requirements; and
- Providing regular training to construction staff (described in Section 10) and contractors on applicable components of the Stormwater Program and the Construction General Permit.

The City has incorporated all of the above tasks as a part of the comprehensive construction program that is presented in Section 6 of the SWMP. Additional information is included within each of the Program Control Measures.

### **6.2 Control Measures**

The City has developed several Control Measures to ensure that the construction-related permit requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements. The Construction Program Control Measures consist of the following:

<b>ID</b>	<b>Control Measure</b>
CO1	Municipal Code for Construction Projects
CO2	Plan Review and Approval Process
CO3	Construction Projects Inventory
CO4	Construction BMPs Implementation
CO5	Construction Site Inspections
CO6	Progressive Enforcement and Referral Policy

In addition to the Control Measures listed above, a number of the activities conducted pursuant to the other program element requirements such as the Public Outreach and Education Program (Section 3), Planning and Land Development Program (Section 7) and Training Program (Section 10) also support the Construction Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Construction Program Performance Standards and implementation schedules.

### **6.3 CO1 Municipal Code for Construction Projects**

The goal of this Control Measure is to ensure that the City has adequate legal authority to control pollutants from construction sites with land disturbance of greater than or equal to one acre. In order to have adequate legal authority, the City adopted a Grading and Erosion Control Ordinance. Pursuant to this Ordinance, construction activities disturbing more than 50 cubic yards of material and clearing and grubbing more than 0.5 acres are required to obtain a Grading and Erosion Control Permit.

In addition, the City in 1997 updated its Standard Specifications to add Section 101 (Stormwater Quality). This Section ensures that stormwater considerations are incorporated into the specifications and plans.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 6.3.1 Performance Standard – Review and Modify Grading and Erosion Control Ordinance

Although the City has already adopted a Grading and Erosion Control Ordinance, it was determined that the Ordinance must be reviewed and modified, as necessary, to ensure that there is adequate legal authority to implement the Erosion and Sediment Control Standards (Control Measure CO4).

- a) Did the City modify the Grading and Erosion Control Ordinance during the reporting period?

Yes  No

Summary of amendments/updates:

If **no**, provide a brief summary regarding the status of the review/revision of the Ordinance:

The City reviewed the existing Storm Water Management and Discharge Control Ordinance and determined that it provides the City with adequate means to implement the Erosion and Sediment Control Standards. Based on that Ordinance, the City established a

mechanism requiring the developers/contractors to submit a Grading and Erosion Control Plan to be reviewed and approved by the City for all development construction projects prior to issuance of any permit. This is in addition to the SWPPP required by the Construction General Permit needed during construction activities.

## **6.4 CO2 Plan Review and Approval Process**

Effective planning of construction site activities leads to minimizing erosion and preventing pollutants from entering the storm drain system. Consistent with the State Construction General Permit, the City requires projects that disturb greater than one acre of land to address pollutants and activities during the construction phase of the project. Prior to issuing a grading permit, the City reviews construction drawings to ensure that erosion and sediment control BMPs and source and treatment control BMPs are identified.

As a part of the review process, the City distributes a two-page handout to applicants to explain the review procedures. Since the handout needed to be updated, the City developed a performance standard to address the need to update the handout.

The City Stormwater Construction Inspector reviews erosion control plans along with project plans to verify that key pieces of information have been submitted. As a result, the City developed a performance standard to address the need to continue these types of reviews.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized in the following subsections.

### 6.4.1 Performance Standard – Review Grading and Building Permit Applications for SWPPP and Other Requirements

If the project site is greater than one acre, the City's Grading and Erosion Control Ordinance requires the project applicant to submit proof that a Notice of Intent has been filed and that a Stormwater Pollution Prevention Plan (SWPPP) has been developed when the grading plans are submitted.

Grading and building permit applications are submitted to the City's Permit Center for review. As a part of this review, the Municipal Utilities Department representative in the Permit Center includes a determination if a SWPPP is needed. If a SWPPP is needed, the applicant is provided a SWPPP Model for Construction.

No grading permit is issued until the following requirements are satisfied:

- Certification that a Notice of Intent to comply with the Construction General Permit has been submitted to the State Board (if applicable);
- A vicinity map showing the nearby roadways, the construction site perimeter, and the geographic features and general topography surrounding the site;
- A site map showing the construction project in detail, including the existing and planned paved areas and buildings; general topography both before and after construction;



drainage patterns across the project area; and anticipated stormwater discharge locations (i.e. the receiving water, a conduit to the receiving water, and/or drain inlets);

- The name and telephone number of the qualified person responsible for implementing the SWPPP

During the reporting period the City reviewed the following permit applications to ensure that they complied with the above requirements.

<b>Time Period</b>	<b>Building Permit Issued</b>	<b>Grading Permit Issued</b>	<b>No. of Applicants Requiring SWPPPs and NOIs</b>	<b>No. of SWPPPs Reviewed</b>
2002/03	9838	36	646	646
2003/04	9406	26	104	104

Appendix F-1 provides a detailed list of the SWPPPs that were reviewed during the reporting period.

#### 6.4.2 Performance Standard – Update the Permit Review Procedure Handout

In order to assist project applicants, the City distributes a two page handout that explains the Permit Center review process. It was determined that the handout should be updated to include:

- The means of obtaining the model local SWPPP; and
- A summary of the revised stormwater inspection checklist (CO5)

a) Did the City modify the Permit Review Procedure Handout?

Yes  No

If **no**, provide a brief update regarding the status of the modifications to the Handout:

The review and modifications to the Permit Review Procedure Handout will be conducted during FY 04-05.

b) During the reporting period the City distributed the following number of handouts

	<b>Total Number Distributed</b>
<b>Permit Review Procedure Handouts</b>	155

#### 6.4.3 Performance Standard – Review Erosion Control Plans

In addition to the Grading and Building permit application reviews, the City Stormwater Construction Inspector reviews erosion control plans to verify that:

- The NOI has been submitted to the State Board;
- The name and contact information for the person responsible for implementing the SWPPP are provided; and
- The type and location of the erosion and sediment control BMPs that will be implemented at the site are listed.

During the reporting period the City reviewed the following plans to ensure that they complied with the above requirements:

	<b>Total Number of Plans Reviewed for Sites &gt; 1 Acre</b>	<b>Number of Plans Requiring Revisions</b>
<b>Erosion Control Plans</b> <i><u>Last</u> Reporting Period</i>	Not Tracked	Not Tracked
<b>Erosion Control Plans</b> <i><u>This</u> Reporting Period</i>	104	Not Tracked

#### 6.5. CO3 Construction Projects Inventory

The tracking of construction sites, from the planning stage to completion is essential for ensuring that stormwater pollutants are reduced to the maximum extent practicable. Maintaining a database to track all stages of the construction process is the foundation of construction-related source identification and helps to ensure that pollution prevention and source control are emphasized during all phases of the construction project.

The performance standard for this control measure and the activities that have been initiated and/or completed during this reporting period is summarized below.

##### 6.5.1 Performance Standard – Maintain Construction Site Database

The inventory is updated on an ongoing basis and audited every two years to ensure that it remains accurate. During the reporting period, the following construction sites were tracked within the City’s database:

Construction Site Category	Total Number of Active Construction Sites Requiring SWPPPs
Private Projects	97
Public Projects	6

A summary report of the ongoing and completed construction sites for the reporting period is included within Appendix F-1.

a) Did the City conduct an audit to verify the accuracy of the construction site database? (first audit to be completed by **June 30, 2005**)

Yes  No, only required every two years

### 6.6 CO4 Construction Project BMP Implementation

The implementation of construction site BMPs is accomplished through the combined approach of educating contractors about sources of stormwater pollutants and the needs and requirements to implement BMPs for different construction-related activities, reviewing grading and erosion control plans and building plans to ensure that stormwater controls have been adequately considered, and ensuring through inspection and enforcement, that contractors have a construction site SWPPP and are implementing the identified BMPs. This Control Measure focuses on the City's requirement for BMPs at construction sites and the education aspects.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 6.6.1 Performance Standard – Revise the Standard Specifications to Reflect the New General Construction Permit (CAS000002)

The Standards and Specifications may need to be modified to:

- Update the Erosion and Sediment Control BMPs;
- Add references to CASQA's new Construction BMP Handbook and Caltrans' Standards for construction activities for selecting or comparing BMPs; and
- Cross-reference the Standards in the Grading and Erosion Control Ordinance

a) Did the City modify the Standards and Specifications? (to be completed by **June 30, 2004 for City – June 30, 2005 for County**)

Yes  No

If **yes**, summarize the modifications that were made:

The City Standard Specifications and Plans are on file.

**6.6.2 Performance Standard – Conduct Tailgate Sessions for Contractors**

The City conducts education and training for construction contractors through a variety of mechanisms including tailgate sessions. The tailgate sessions will, among other items, review:

- The State General Construction Permit; and
- City requirements for construction sites, including BMPs

a) Did the City conduct tailgate sessions for construction contractors? (*first tailgate session to be completed by **June 30, 2005***)

Yes  No, only required every two years

If **yes**, complete the table below:

<b>Date of Tailgate Session</b>	<b>Contractor Name, Location of Training</b>	<b>Total Number Participants</b>	<b>Information Discussed</b>
7/29/03 through 11/14/03	See Attached List	Not Available	Construction BMP

See the attached list of Tailgate Meeting 2003/2004 (Appendix F-2).

**6.7 CO5 Construction Site Inspections**

Inspections are critical to the ultimate success of the Construction Program Element. An effective construction inspection program requires having adequate legal authority to enforce the City requirements, tracking active construction sites to identify repeat violators, and conducting inspections to ensure that BMPs are being implemented.

Since it was determined that the City inspection form should be improved and updated, the City developed a performance standard that addresses this need.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

**6.7.1 Performance Standard – Update the Construction Site Inspection Form**

In order to ensure that there is consistency among the construction site inspectors and that no issues are overlooked, the construction site inspectors use a standard construction site inspection form. The inspector uses the form to verify that the SWPPP is onsite and that the appropriate BMPs are being implemented.

The Stormwater Construction Site Inspection Form will be updated to:

- Provide greater consistency with requirements in the Model SWPPP for Construction Activities;
- Include checks for BMPs;
- Check for any non-stormwater runoff; and

- Note enforcement action taken per the progressive enforcement policy (CO6)

a) Did the City update the Stormwater Construction Site Inspection Form?

Yes  No

If **no**, provide a brief update regarding the status of the modifications:

The City will review and update the Inspection Form during FY 04-05.

#### 6.7.2 Performance Standard – Inspect Construction Sites Greater Than 1 Acre Once Per Month

All construction sites greater than one acre are, at a minimum, inspected once per month during both dry and wet season to ensure that they are in compliance with the City’s Ordinances and applicable standards. Additional inspections are conducted as time allows or a follow up where problems were noted in the previous inspection. The inspections are documented within the Construction Projects Inventory (Section 6.5).

During the reporting period the following inspections were completed:

Type of Activity	Total Number
Active Construction Sites Greater Than 1 Acre	104
Regular Inspections Conducted	898
Follow Up Inspections Due to Violations	13

### **6.8 CO6 Progressive Enforcement and Referral Policy**

A progressive enforcement policy, and accompanying legal authority to execute it, is an important tool for providing a fair and equitable approach to bringing contractors and developers into compliance with Ordinance code requirements. Enforcement actions range from issuance of verbal warnings, Notices of Violations, administrative citations, and stop work orders. For repeat offenders or contractors that have not filed appropriate applications, the referral policy includes notifying the Regional Board.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 6.8.1 Performance Standard – Develop and Implement a Progressive Enforcement Policy

A Progressive Enforcement Policy was developed and submitted with the SWMP and is now being implemented.

- a) The table below provides a summary of the numbers and types of enforcement actions that have been taken by the City for violations at construction sites during the reporting period:

	Administrative Remedies				Legal Action
	Verbal Warnings	Notice of Noncompliance	Administrative Compliance Orders	Stop Work Orders	Type (Misdemeanor, Infraction, Etc.)
Total Number	121	16	3	0	0

Total number of enforcement actions taken - 140

The majority of NOV's were issued due to unclean sites (e.g. street dirty, mud in gutters, trash). Missing BMP's and discharges to catch basins were also observed at some sites. Additional details on the NOV's issued are provided in Appendix F-1.

- b) The City generally refers construction site violations to the Regional Board under two circumstances:
- If three significant violations have occurred; and
  - If it is determined that a site should obtain coverage under the General Construction Permit (non-filers)

If a construction site has received its' third notice for a significant violation of the City's Stormwater Management and Discharge Control Ordinance with a 12 month period, the City notifies the Regional Board. The construction site referral is made in writing within 30 days of the inspection that led to the third notice. It should be noted that some referrals may vary from this schedule due to the nature of the violation and the type of response involved.

Cause of Referral	Total Number <i>(See the summary below)</i>
Significant Violations	13
Potential Non-Filers	None

A summary of the referrals that were made during the reporting period is included below:

**Significant Violations**

Site Description	Progressive Enforcement Actions Taken	Date of Referral
Refer to attached list of NOV (Appendix F-1)	NOV	Refer to attached list of NOV in Appendix F-1

**Potential Non-Filers**

Site Description	Issues of Concern	Date of Referral
N/A	N/A	N/A

**6.9 Construction Program Assessment**

In order to determine the effectiveness of the Construction Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Construction Program:

- a) The City is incorporates stormwater quality protection principles into the construction program by:
  - Reviewing the grading and erosion control ordinance
  - Requiring approval of Grading and Erosion Control Plans for all development construction projects
  - Distributing handouts designed to provide assistance to project applicants regarding permit requirements including stormwater requirements.
  
- b) The City’s outreach effort to developers and construction contractors regarding stormwater and construction requirements have resulted in the following:
  - They are applying for coverage under the General Construction Permit and submitting proof of an NOI – 100% of the constructions sites eligible under the State Construction General Permit submitted an NOI.
  
- c) There is some indication that developers/contractors are more responsible when implementing and maintaining the construction site BMPs as 87% of the active sites had no violations (91 out of 104 sites). However, these were considered significant violations and were reported to the Regional Board.
  
- d) The most common type of violation was not complying 100% with project SWPPP.

## **6.10 Construction Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the City's Construction Program during the next fiscal year include the following:

- Review and make the necessary changes to the inventory database to adequately track the implementation of the Construction Program.



## **7.0 – Planning and Land Development Program Element**

### **7.1 Overview**

The Planning and Land Development Program Element ensures that the impacts from new development on stormwater quality are limited through implementation of site planning, design practices and post-construction controls. The general strategy for development is to avoid, minimize, and mitigate the potential adverse impacts to stormwater. Long-term stormwater impacts from development can also be reduced by requiring ongoing operation and maintenance of selected post-construction treatment controls.

The City has developed a comprehensive program to establish the necessary policies and procedures in order to reduce pollutants in stormwater runoff from new development. As a part of this program, the City will propose modifications of the General Plan to include additional stormwater quality principals, the project approval process, and establish development standards (Section 7 of the SWMP). Additional information is included within each of the Program Control Measures.

### **7.2 Control Measures**

The City has developed several Control Measures to ensure that the planning and land development program requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Planning and Land Development Program Control Measures consists of the following:

<b>ID</b>	<b>Control Measure</b>
LD1	Incorporation of Water Quality Protection into Procedures and Policies
LD2	New Development Standards
LD3	Plan Review Sign-Off
LD4	Maintenance Agreement and Transfer

In addition to the Control Measures listed above, activities conducted pursuant to the Public Education and Outreach Program (Section 3), Construction Program (Section 6) and other stormwater program elements also support and provide guidance for the Planning and Land Development Program.

The next section of the annual progress report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Planning and Land Development Program Performance Standards and implementation schedules.

### **7.3 LD1 Incorporation of Water Quality Protection into Procedures and Policies**

Traditional land development tends to increase stormwater discharges and flow velocities. These alterations to the natural hydrologic cycle can lead to increased erosion and flooding, and decreased habitat integrity. Water quality and watershed protection principles and policies such as minimization of impervious areas, pollutant source controls, preservation of natural areas, and peak runoff controls can help to minimize the impacts of urban development.

Integration of stormwater quality and watershed principals into the City's General Plan can serve as the basis for directing future planning and development in order to minimize the negative impacts of urban development on the aquatic environment. In addition, the CEQA process should provide for consideration of water quality impacts and provide for appropriate mitigation measures.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

#### 7.3.1 Performance Standard – Revise General Plan (when updated)

The General Plan contains policies that address how the City will direct development efforts, with consideration for social, economic, and environmental impacts. The City also recognizes that opportunities exist to address and further develop water quality and watershed protection principles (SWMP Section 7.2) when the General Plan is modified.

- a) Did the City update the General Plan?

Yes  No

If **no**, what is the projected date for the next General Plan update: December 31, 2004

#### 7.3.2 Performance Standard – Provide Drafts of Proposed General Plan Amendments to the Regional Board

The City will provide the Regional Board with draft General Plan amendments or revisions for the Land Use, Housing, Conservation or Open Space elements when the General Plan is noticed for comment.

- a) Did the City provide the Regional Board with draft General Plan amendments or revisions for the Land Use, Housing, and Conservation of Open Space elements?

Yes  No – no revisions or amendments were made

#### 7.3.3 Performance Standard – Review and Revise CEQA Review Documents

The CEQA review process is necessary in order to determine what impacts a proposed development project could potentially have on the environment. As a part of the overall review,

the CEQA process should consider potential stormwater quality impacts and provide for appropriate mitigation measures. The areas that should be considered include the following:

- Potential impact of project construction on stormwater runoff;
- Potential impact of project post-construction activity on stormwater runoff;
- Potential for discharge of stormwater from areas from material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;
- Potential for discharge of stormwater to impair the beneficial uses of the receiving waters or areas that provide water quality benefit;
- Potential for the discharge of stormwater to cause significant harm on the biological integrity of the waterways and water bodies;
- Potential for significant changes in the flow velocity or volume of stormwater runoff that can cause environmental harm; and
- Potential for significant increases in erosion of the project site or surrounding areas.

a) Did the City review the CEQA checklist to determine if it adequately addresses the above areas? *(to be completed by June 30, 2005)*

Yes  No

If **no**, explain

The CEQA checklist is currently under review and its revision will be completed by June 30, 2005.

#### 7.3.4 Performance Standard – Revise Ordinance for Enforcing Standards

The City will review, and if necessary, revise ordinances to ensure that there is adequate legal authority to implement and enforce required stormwater quality measures for new development and redevelopment activities.

a) Did the City review the ordinances to determine if the City has adequate legal authority to implement and enforce the new development and redevelopment standards? *(to be completed by June 30, 2005)*

Yes  No

If **no**, explain

The City is planning to complete its review of Ordinances by June 30, 2005.

## 7.4 LD2 New Development Standards

Control measures, including source and treatment control BMPs, are necessary for development projects in order to mitigate potential water quality impacts. In addition, priority projects identified within the municipal stormwater permit will require specific mitigation measures. In order to assist developers in meeting these requirements, the City developed a Guidance Manual for New Development Stormwater Quality Control Measures.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

### 7.4.1 Performance Standard – Finalize and Adopt the Guidance Manual for New Development Stormwater Quality Control Measures

Since the previous City Development Standards needed to be revised as a result of the increased municipal stormwater permit requirements, the City of Stockton and County of San Joaquin developed a guidance manual for the selection, design, and maintenance of BMPs for new development projects within the Stockton Urbanized Area. The manual addresses the Development Standards as well as Maintenance Agreements (also see Control Measure LD4) and was developed with oversight from Advisory Group which was comprised of representatives from the Building Industry Association, Chamber of Commerce, developer interests, environmental advocates (Delta Keeper), and City staff.

The manual, entitled “*Stormwater Quality Control Criteria Plan*” was finalized and adopted by the City and County.

### 7.4.2 Performance Standard – Submit Guidance Manual to the Regional Board for Review

The City submitted the *Stormwater Quality Control Criteria Plan* to the Regional Board on December 1, 2003 for review.

- a) Has the City received comments from the Regional Board?

Yes  No

## 7.5 LD3 Plan Review Sign-Off

Stormwater quality controls should be considered throughout the development plan review and approval process. Comprehensive review by the City of development plans must be provided in order to ensure that stormwater controls minimize stormwater quality impacts.

The City’s Development Review Committee (DRC), which is made up of representatives from various City departments, primarily reviews and approves larger projects and sub-divisions and ensures that the erosion control, SWPPP requirements and post construction controls are identified and included on the tentative map. A Municipal Utilities Department (MUD) representative is on the DRC to ensure that post construction stormwater quality controls are addressed and included

during the planning of new developments. If there are any issues that the DRC identifies, they are resolved with the developer prior to project approval. In order to ensure the continued participation of a MUD representative on the DRC, the City developed a performance standard.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

7.5.1 Performance Standard – Develop Conditions of Approval for Stormwater Controls

The City will develop conditions of approval for use with development plans to ensure that the stormwater quality control criteria plan requirements are addressed.

- a) Did the City develop conditions of approval for the stormwater quality control requirements? *(to be completed by June 30, 2004)*

Yes  No

- b) If **yes**, summarize the conditions of approval below

See the Development Projects Approval Review Checklist provided in Appendix G-1.

7.5.2 Performance Standard – Revise the Stormwater Plan Review Checklist

The City will review, and if necessary, revise the stormwater plan review checklist to ensure that the Stormwater Quality Control Criteria Plan requirements are met.

- a) Did the City review the plan review checklist to determine if the Stormwater Quality Control Criteria Plan requirements are addressed? *(to be completed by June 30, 2004)*

Yes  No

- b) If **yes**, did the City revise the checklist? *(to be completed by June 30, 2004)*

Yes  No

- c) If **yes**, the major checklist revisions are summarized below

See the Development Projects Approval Review Checklist in Appendix G-1.

7.5.3 Performance Standard – Continue MUD Participation on the DRC

The City will continue to have MUD staff participate on the DRC to ensure that the development projects are consistent with the stormwater program requirements.

- a) Did MUD staff participate on the DRC?

Yes  No

b) If **yes**,

How many times did the DRC meet? Once a week

How many meetings did the MUD staff participate in? 52

Summarize the significant stormwater program requirements imposed on development projects:

SWPPP, Notice of Intent filed with CWQCB, Grading Plan, Tentative Map Approval Date, Improvement Plans Approval Date, Erosion Control Plan, and SWQCCP.

7.5.4 Performance Standard – Review Project Plans and Grading Plans for Stormwater BMPs

The City will review project and grading plans to make sure that stormwater BMPs are incorporated.

a) Did the City continue to review project plans for stormwater BMPs?

Yes  No

b) If **yes**, a summary of the projects that were reviewed is provided below

Time Frame	Total Number of Project Plans Reviewed	Total Number of Project Plans that were Priority Developments
Last Year	55	55
This Year	155	18

**Priority Project Summary\***

Priority Project Category	Total Number Reviewed	Total Number Requiring Revisions
Commercial Developments ( $\geq 100,000$ SF)	2	1
Automotive Repair Shops	0	0
Retail Gasoline Outlets	0	0
Restaurants	0	0
Parking Lots ( $\geq 5,000$ SF or 25 spaces)	1	1
Streets and Roads ( $>1$ acre paved surface)	1	1
Home Subdivisions ( $\geq 10$ units)	14	2 (average)

\*The Development Standards apply to all priority projects or phases of priority projects at the date of adoption unless the projects already had approval by the City or County Engineer, a permit for development or construction or an approved tentative map prior to the Development Standards date of adoption.

**Total number of priority development projects conditionally approved:** 18

**Total acreage covered by the approved priority development projects:** Not tracked

In the following tables, a summary of the type and number of post-construction BMPs that were implemented as a part of the priority development projects that were approved is provided.

Definitions and guidance for each of the controls can be found in the City's *Stormwater Quality Control Criteria Plan*.

**General Site Design Control Measures (G1 – G4)**

Type of Control Measure	Total Number Approved During the Reporting Period
G-1 Conserve Natural Areas	14
G-2 Protect Slopes and Channels	14
G-3 Minimize Impervious Areas	14
G-4 Minimize Effective Imperviousness	
G-4.1 Turf Buffer	14
G-4.2 Grass-Lined Channels	1
<b>Total</b>	<b>14*</b>

\*14 projects fall under the requirements of SWQCCP and were reviewed for G-1 through G-4.

**Site- Specific Source Control Measures (S1 – S8)**

Type of Control Measure	Total Number Approved During the Reporting Period
S-1 Storm Drain Message and Signage	14
S-2 Outdoor Materials Storage Area Design	0
S-3 Outdoor Trash Storage and Waste Handling Area Design	2
S-4 Outdoor Loading/Unloading Dock Area Design	1
S-5 Outdoor Repair/Maintenance Bay Design	0
S-6 Outdoor Vehicle/Equipment/Accessory Wash Area Design	0
S-7 Fueling Area Design	0
S-8 Proof of Control Measure Maintenance	0
<b>Total</b>	<b>17</b>

**Treatment Control Measures (T1 – T13)**

Type of Control Measure	Total Number Approved During the Reporting Period
T-1 Vegetated Buffer Strip	0
T-2 Vegetated Swale	2
T-3 Extended Detention Basin	1
T-4 Wet Pond	0
T-5 Constructed Wetland	0
T-6 Detention Basin/Sand Filter	1
T-7 Porous Pavement Detention	0
T-8 Porous Landscape Detention	0
T-9 Infiltration Basin	1
T-10 Infiltration Trench	0
T-11 Media Filter	0
T-11.1 Austin Sand Filter	0
T-11.2 District of Columbia Sand Filter	0
T-11.3 Delaware (Linear) Sand Filter	0
T-12 Retention/Irrigation	0
T-13 Proprietary Control Measures	2
<b>Total</b>	<b>7*</b>

\*The total seven (7) projects listed above, required a treatment control BMP called for in SWQCCP.

**Summary Table**

Type of Control Measure	Total Number Approved During the Reporting Period
General Site Design Control Measures (G1 – G4)	14
Site- Specific Source Control Measures (S1 – S8)	17
Treatment Control Measures (T1 – T13)	7
<b>Total</b>	<b>38</b>

**7.6 LD4 Maintenance Agreement and Transfer**

In order to ensure that selected post-construction stormwater controls remain effective upon project completion, a maintenance agreement and transfer is required to be completed for all priority development projects. This Agreement will be required when a developer, maintenance district, homeowners association, etc. is responsible for the continued operation and maintenance of a post-construction BMP.

The performance standards for this control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

7.6.1 Performance Standard – Integrate Stormwater Maintenance Agreement into Project Approval Process

The City will integrate the development/submittal of a stormwater maintenance agreement as a condition within the project approval process for priority projects. The Maintenance Agreement will be required when either the City or a developer/home owners association is responsible for the on-going maintenance. In either case, the Agreement will identify the responsible party and maintenance conditions.

- a) Did the City develop a condition of approval for the development/submittal of a stormwater maintenance agreement? *(to be completed by June 30, 2004)*

Yes  No

- b) If **yes**, summarize the condition of approval below

See the Development Projects Approval Review Checklist in Appendix G-1.

7.6.2 Performance Standard – Develop Stormwater Maintenance Agreement

The *Stormwater Quality Control Criteria Plan* addresses the City’s Development Standards as well as the need for the development and submittal of Maintenance Agreements (see LD2) when a developer is responsible for on-going maintenance of on-site treatment BMPs. In order to provide guidance to developers, the City developed a sample maintenance agreement form and maintenance plan guidelines as appendices to the *Stormwater Quality Control Criteria Plan*.

- a) Did the City execute any maintenance agreements?



Yes  No – no maintenance agreements were received

The seven (7) projects requiring treatment control BMPs were conditionally approved. Maintenance agreements will be executed once the projects are constructed and prior to being turned over to the City, Homeowner Association, or Maintenance District.

## **7.7 Planning and Land Development Program Assessment**

In order to determine the effectiveness of the Planning and Land Development Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are then used to identify modifications that need to be made to the program. By conducting these assessments and modifying the program as needed, the City ensures that the iterative process is used as an effective management tool.

However, pursuant to the second term municipal stormwater permit, the City submitted a revised SWMP in September 2003. Since the revised SWMP included many new program requirements, this annual report will best serve as a baseline for future program assessments. Although future assessments will be able to include a number of year to year comparisons, following are some general conclusions regarding the effectiveness of the first year of implementation for the revised Planning and Land Development

The City has integrated stormwater quality and watershed protection principles into the planning and land development policies, procedures and review processes as indicated below:

- a) The City developed the Stormwater Quality Control Criteria Plan, developed conditions of approval for stormwater controls, and revised the Stormwater Plan Review Checklist.
- b) The MUD continued to participate on the Development Review Committee.
- c) In this reporting period the City began its program to mandate stormwater requirements into priority development projects. To date the program has required the incorporation of 38 control measures into 18 priority projects.

## **7.8 Planning and Land Development Program Modifications**

The City evaluates the results of the annual progress report assessments as well as the experience that staff has had in implementing the program and determines if any program modifications are necessary in order to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable.

The program modifications that will be made to the Planning and Land Development Program during the next fiscal year include the following:

- The City will track acreage covered by approved priority development projects.
- Review plan sign-off requirements to assess whether maintenance agreements should be addressed at the time of plan approval.

## **8.0 – Water Quality Based Program**

### **8.1 Overview**

The purpose of the Water Quality Based Program is to address specific pollutants that have been identified as impacting or potentially impacting local water quality. Specific plans were developed during the reporting year to address the following pollutants:

- Pesticides (including diazinon and chlorpyrifos);
- Pathogens; and
- Dissolved oxygen.

On behalf of the City and County, the City developed the plans to address the above noted pollutants and submitted them to the Regional Board on April 1, 2004. A summary of each of the plans is provided below along with an update as to the status of the plan review by the Executive Officer (EO) of the Regional Board.

### **8.2 Pesticide Plan**

As a part of their stormwater monitoring program, the City and County have identified pesticides (in particular diazinon and chlorpyrifos) as problematic pollutants that impact local waterbodies. In order to address the pesticide impairment of urban streams, the City and County developed a Pesticide Plan (Plan) that addresses their own use and use by others of pesticides. The overall goal of the Plan is to protect water quality by implementing Best Management Practices (BMPs) to minimize or eliminate pesticides in stormwater runoff.

The Plan is divided into four major components:

- Current Conditions – summarizes the pesticide monitoring results and identifies those policies and procedures currently used to control pesticide sources
- Pesticide Plan – summarizes the strategies to be used in identifying pesticide sources and implementing BMPs to eliminate or minimize pesticides in stormwater runoff
- Plan Assessment – describes measures to be taken to assess the effectiveness of the Plan
- Implementation Schedule – identifies when the activities identified within the Plan will occur

The Pesticide Plan addresses the permit requirements, builds upon the efforts that the City and County currently have in place and includes the following components:

- Less Toxic Alternatives
- Pesticide Materials and Uses
- Landscaping Alternatives
- Public Education and Outreach
- Pesticide Disposal
- Other Pesticide Activities

After the submittal of the Plan to the Regional Board on April 1, 2004, the Permittees initiated the 30-day public review on April 23<sup>rd</sup> (ending May 24<sup>th</sup>) and distributed the Plan to 30 interested parties via direct mail, the City website and through an advertisement in the local newspaper (Stockton Record). As a result of the public review period, one set of comments was received by the City and County. On September 2, 2004, the Regional Board completed their review of the Pesticide Plan and provided comments to the City and County. The City and County will submit the plan revisions in the form of an addendum letter to Regional Board on September 22, 2004.

### **8.3 Pathogen Plan**

Recent monitoring efforts have identified impairment of several local water bodies within the Stockton Urbanized Area due to the presence of bacteria (pathogens). In order to address the impairments, the City and County developed a Pathogen Plan (Plan). The overall goal of the Plan is to identify, monitor and mitigate the controllable sources of bacteria.

The Plan is divided into three major components:

- Current Conditions – summarizes the bacteria monitoring results and identifies those policies and procedures currently used to control bacteria sources
- Assessment of Current Conditions – evaluates the monitoring results in relation to the potential sources of bacteria. It also summarizes current microbial source tracking methodology and presents an overview of BMPs useful in controlling bacteria.
- Pathogen Plan – summarizes the strategies to be used in identifying bacteria sources and implementing BMPs to mitigate their impact. This section also includes the measures that will be taken to assess the effectiveness of the Plan as well as the implementation schedule.

The Pathogen Plan addresses the permit requirements, builds upon the efforts that the City and County currently have in place and includes the following components:

- Characterization Monitoring
- Source Identification Studies
- BMP Development and Implementation
- Effectiveness Monitoring and Plan Assessment

After the submittal of the Plan to the Regional Board on April 1, 2004, the Permittees initiated the 30-day public review on April 23<sup>rd</sup> (ending May 24<sup>th</sup>) and distributed the Plan to 30 interested parties via direct mail, the City website and through an advertisement in the local newspaper (Stockton Record). As a result of the public review period, one set of comments was received by the Regional Board's Executive Officer (EO). The Regional Board staff provided comments to the City and County on June 29, 2004 and requested modifications to the Plan. The City and County responded on August 18, 2004 with a revised Pathogen Plan. The City and County will be implementing the Plan beginning fall 2004.

## **8.4 Dissolved Oxygen Plan**

Recent monitoring efforts have identified impairment of several local water bodies within the Stockton Urbanized Area due to low dissolved oxygen concentrations. In order to address the impairments, the City and County developed a Dissolved Oxygen Plan (DO Plan). The DO Plan is a companion effort to the Smith Canal Work Plan (see Section 8.5). The overall goals of the DO Plan are to identify sources that contribute to low dissolved oxygen and evaluate potential mechanisms for controlling these sources.

The Plan is divided into six major components:

- Receiving Water - summarizes the physical characteristics of the Stockton storm drain system, San Joaquin River, and the Deep Water Ship Channel.
- Dissolved Oxygen – presents summary of factors that affect DO concentrations.
- Previous Studies on DO Impairment – provides a summary of previous studies and identifies data gaps.
- Current DO Related Studies in Stockton Waterways – summarizes the San Joaquin River circulation study and the Smith Canal water quality monitoring program.
- Contributors of Oxygen Depleting Materials to the Storm Drain System – discusses the primary contributors of low DO including BOD, nutrients, and turbidity.
- Proposed Activities – presents a monitoring program and describes ongoing efforts to implement BMPs for improving DO conditions.

The proposed activities addresses the permit requirements, builds upon the efforts that the City and County currently have in place and includes the following components:

- Storm Water System BOD/Nutrient Monitoring
- BMP Identification, Development and Implementation

After the submittal of the DO Plan to the Regional Board on April 1, 2004, the City and County initiated the 30-day public review on April 23<sup>rd</sup> (ending May 24<sup>th</sup>) and distributed the Plan to 30 interested parties via direct mail, the City website and through an advertisement in the local newspaper (Stockton Record). As a result of the public review period, one set of comments was received by the Regional Board's Executive Officer (EO). On September 2, 2004, the Regional Board completed their review of the DO Plan and provided comments to the City and County. The City and County will submit the plan revisions in the form of an addendum letter to Regional Board on October 1, 2004.

After consideration of the comments, the EO will inform the City and County of the remaining requirements for adopting the plan.

## **8.5 Smith Canal Work Plan**

Smith Canal has been identified as being impaired for the following pollutant/stressor: pathogens (bacteria), organophosphate pesticides, and low dissolved oxygen. As noted in sections 8.2 and

8.3, the City and County have developed work plans for both pathogens and pesticides for the greater Stockton urban area, which includes Smith Canal. Thus the programs developed under those work plans will eventually be applied to Smith Canal as appropriate.

For low dissolved oxygen, the Permit requires the City and County to develop two work plans: one for the DO impaired water bodies in the greater Stockton urban area (see Section 8.4) and one for Smith Canal. The Smith Canal work plan will serve as the main effort for low dissolved oxygen and it is anticipated that the information collected (including BMPs) will be directly transferable to the Stockton area DO Plan.

In August 2003 the City and County developed and submitted the Smith Canal Drainage Area Analysis Dissolved Oxygen Work Plan (Plan). The overall goal is to address the dissolved oxygen impairment by identifying and evaluating potential BMPs for mitigating the impact. The Plan is divided into five major components:

- Smith Canal Background and Data Search – summarizes the characteristics of Smith Canal and identifies how the background data search was completed
- Previous Studies on Smith Canal – summarizes the previous studies conducted within the Smith Canal that identified low DO levels
- Proposed Modeling and Monitoring – evaluation of the previous monitoring and modeling and summarizes the proposed additional monitoring and modeling to address the data gaps and provide for effective evaluation of the BMPs
- Mitigation Options – summarizes the mitigation options that are available to address the low DO levels
- Proposed Activities – describes the proposed BMPs as well as a general schedule for implementation

The proposed activities address the permit requirements, builds upon the efforts that the City and County currently have in place and includes the following components:

- Characterization Monitoring
- BMP Development and Implementation
- Feasibility Studies and Effectiveness Monitoring

The Smith Canal Work Plan has been reviewed and approved by the Regional Board. The City is currently installing the equipment necessary for the Smith Canal DO monitoring program.

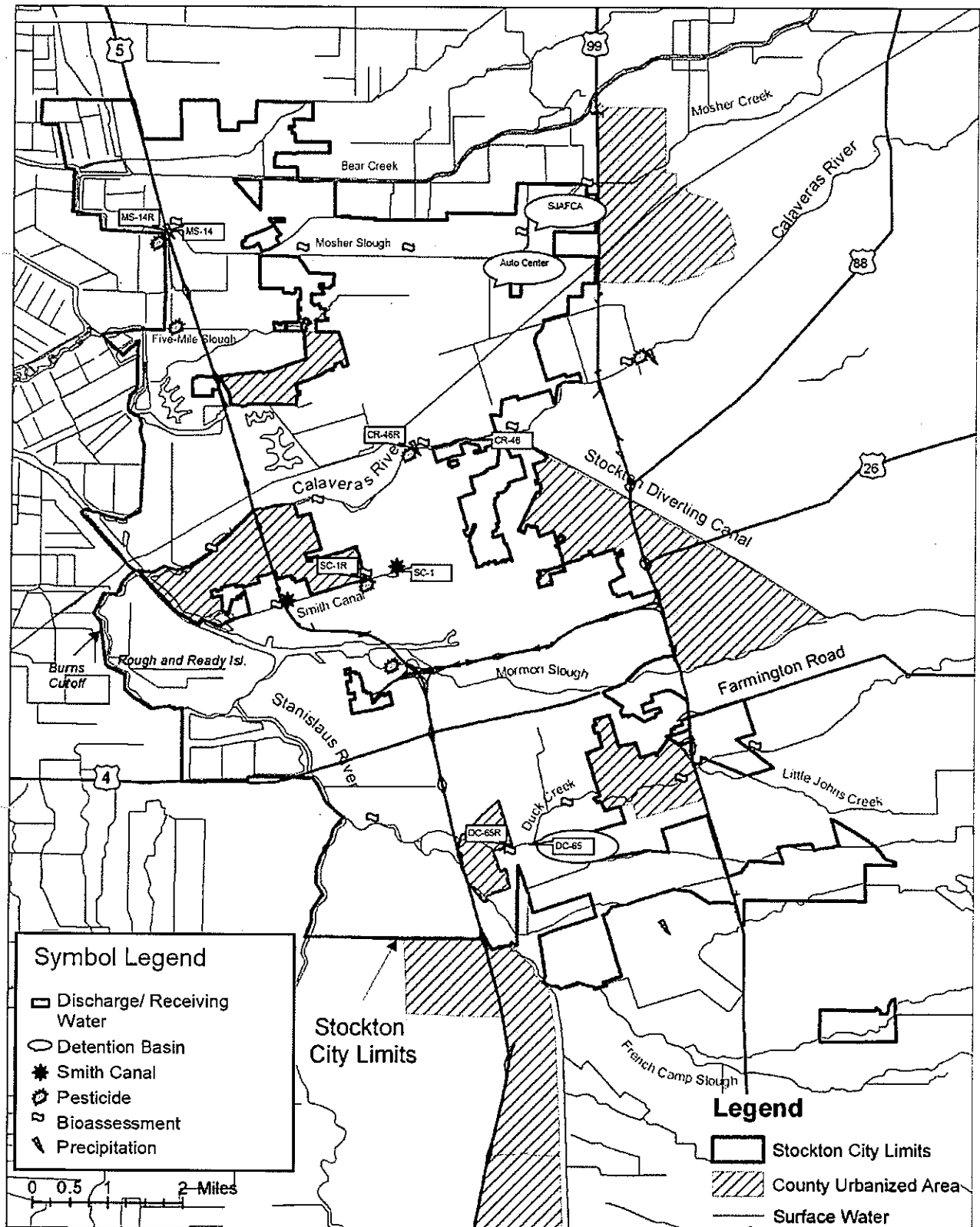
## 9.0 Monitoring Program

The Stockton Urbanized Area NPDES permit (Permit) requires monitoring of urban runoff and receiving waters as detailed in the Monitoring and Reporting Program (MRP). The MRP includes the characterization of runoff and receiving water quality and toxicity as well as an assessment of the effectiveness of control measures. Characterization elements can be used to monitor trends over longer periods and to identify specific constituents of interest. Specific characterization studies related to dissolved oxygen, pesticides, and pathogens are used to identify the geographic and temporal scope of urban runoff impact. The specific monitoring elements of the MRP are described in MRP § II.A through II.F and § III.A and III.B.

During the 2003/2004 monitoring season the Co-permittees performed all required monitoring activities and performed necessary monitoring work planning elements. These activities are summarized in Table 9-1. The urban runoff discharge and receiving water monitoring are coordinated activities (i.e., receiving water locations are downstream of the urban runoff discharge locations). All monitoring locations are shown in Figure 9-1.

Table 9-1. 2003/2004 Monitoring Program Accomplishments

Monitoring Activity	Status
Urban Runoff Discharge Characterization (four sites)	<ul style="list-style-type: none"> <li>• 2 wet weather events successfully monitored</li> <li>• 2 dry weather events successfully monitored</li> <li>• All events coordinated with receiving water monitoring.</li> </ul>
Receiving Water Monitoring (four sites)	<ul style="list-style-type: none"> <li>• 2 wet weather events successfully monitored</li> <li>• 2 dry weather events successfully monitored</li> <li>• All events coordinated with urban runoff water monitoring.</li> </ul>
Detention Basin Monitoring	<ul style="list-style-type: none"> <li>• 2 wet weather events successfully monitored</li> <li>• Sediment sampling successfully performed.</li> </ul>
Dry Weather Field Screening	<ul style="list-style-type: none"> <li>• Performed field screening of 22 outfall locations during dry weather periods.</li> </ul>
Bioassessment	<ul style="list-style-type: none"> <li>• Revised the field and laboratory protocols to the USEPA Environmental Monitoring and Assessment Program (EMAP) procedures and California Stream Bioassessment Procedures (CSBPs) (April 2004)</li> <li>• Conducted field surveys to select and characterize study reaches.</li> <li>• Submitted proposed study reaches and revised protocols to SWRCB for review and approval</li> <li>• Conducted field training and benthic macroinvertebrate sampling of approved study reaches</li> <li>• Initiated laboratory and quality assurance procedures</li> </ul>
Pesticide Monitoring	<ul style="list-style-type: none"> <li>• Pesticide Plan including monitoring submitted to Central Valley RWQCB April 2004 (See Section 8.0).</li> </ul>
Bacteriological Monitoring	<ul style="list-style-type: none"> <li>• Pathogen Plan including monitoring submitted to Central Valley RWQCB April 2004 (See Section 8.0).</li> </ul>
Smith Canal Dissolved Oxygen Study	<ul style="list-style-type: none"> <li>• Work plan submitted to Central Valley RWQCB April 2004 (See Section 8.0).</li> </ul>



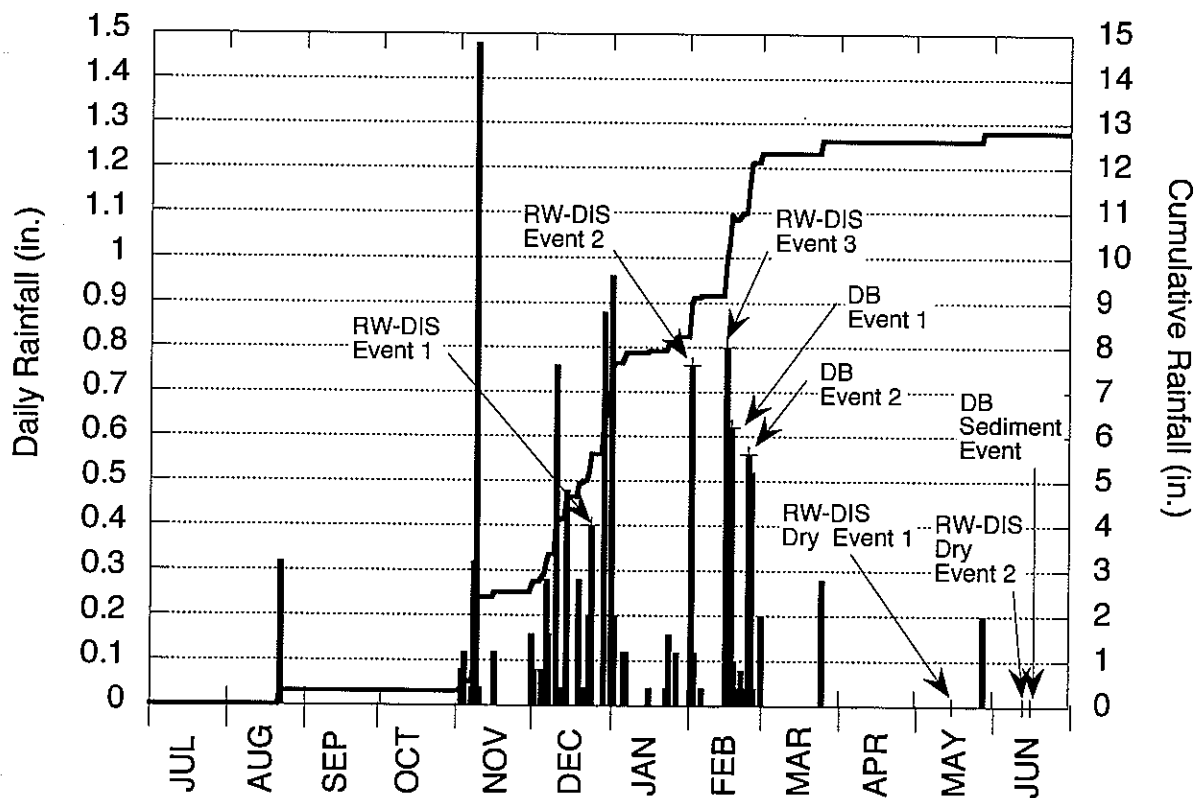
**Figure 9-1. Monitoring Locations**

### 9.1 2003/2004 Monitoring Activities

Monitoring was performed during both the wet and dry weather for the urban runoff discharge/receiving water detention basin studies. Dry weather field screening and bioassessment monitoring are performed during dry weather only. Monitoring activities for each of these studies is described in the following sections.

#### Storm Tracking and Selection

Stormwater runoff is key component of the urban runoff program and requires a high level of coordination of equipment and field crews. Incoming storm events are tracked throughout the year and assessed against storm selection criteria (amount of precipitation, days since last event, duration of event, etc.) and the forecasted reliability that the storm will occur in the Stockton area. During the 2003/2004 monitoring year (July 1, 2003 to June 30, 2004), 12.8 inches of rainfall were recorded at the Stockton Fire Station as shown in Figure 9-2. Wet weather events are timed to capture urban runoff impacts with highest possible representation of the storm event (i.e., high percent capture) using flow based compositing techniques when possible. Grab sampling is necessary at some locations and for certain constituents.



Notes:  
 RW-DIS - Receiving Water and Urban Runoff Discharge Event  
 DB - Detention Basin Event

**Figure 9-2. 2003-04 Precipitation at Stockton Fire Station**



**Urban Runoff Discharge and Receiving Water Monitoring**

Urban runoff discharge and receiving water monitoring activities were coordinated both in location and timing. Urban discharge monitoring characterizes the quantity and quality of urban runoff discharged directly to receiving waters within the Stockton urbanized area. Four urban runoff discharge monitoring locations are specified in the current Permit. The monitoring locations are outfalls representative of the various land uses within the urbanized area. The monitoring stations are located at sites that are representative of commercial, industrial, residential, and mixed land uses within the City of Stockton. During the 2003/2004 reporting period, monitoring was completed at each site twice during the wet season and twice during the dry season. During 2003/2004, receiving water monitoring was conducted at sites downstream from the urban discharge sites. The receiving water samples were collected after discharges from the urban discharge monitoring sites occurred. The watershed included in the monitoring program are:

- Mosher Slough (MS)
- Calaveras River (CR)
- Duck Creek (DC)
- Smith Canal (SC)

The urban discharge and receiving water sites are summarized in Table 9-2. The locations of receiving water, urban discharge, and detention basin monitoring sites are shown in Figure 9-2.

**Table 9-2 Urban Runoff Discharge and Receiving Water Monitoring Sites**

Monitoring Program	Station ID	Monitoring Site Location	Predominant Land Use	Watershed (acres)
Urban Discharge	MS-14	9211 Kelly Drive	Residential	533
	CR-46	4250 North West Lane	Commercial	169
	DC-65	555 Zephyr Drive	Industrial	343
	SC-1	840 Baker Place	Mixed use	1,866
Receiving Water and Water Column Toxicity	MS-14R	Mosher Slough at Mariners Drive	Residential	NA
	CR-46R	Calaveras River at El Dorado St.	Commercial	NA
	DC-65R	Duck Creek at O'Dell Ave. Over-Crossing	Industrial	NA
	SC-1R	Smith Canal at Pershing Avenue	Mixed use	NA

Notes: "NA" – not available

Four events, two wet weather and two dry weather, were monitored at all eight urban discharge and receiving water sites in 2003/2004. A third wet weather event was required at the Duck Creek locations (DC-65 and DC-65R) because the composite bottle during the second monitoring event was accidentally broken during transport. During each event samples were collected according to the 2003-04 analyte "schedule" as shown in Table 9-3. All water quality results for these

programs are included with this report as Appendix I. A discussion of data quality evaluation (i.e., quality assurance/quality control – QA/QC) is included in the next section of this report.

**Table 9-3. Constituent Analysis for Urban Runoff Discharge and Receiving Water**

Constituent	Sample Type	EPA Method	Target Reporting Limit	Units
<i>CONVENTIONAL</i>				
Total Phenols	Flow-based composite Grab at receiving water stations	420.1	0.1	mg/L
Cyanide (Total)		335.2	0.005	mg/L
Turbidity		180.1	0.1	NTU
Total Suspended Solids		160.2	2	mg/L
Total Dissolved Solids		160.1	2	mg/L
Volatile Suspended Solids		160.2	2	mg/L
Total Organic Carbon		415.1	1	mg/L
Biochemical Oxygen Demand		405.1	2	mg/L
Chemical Oxygen Demand		410.4	20-900	mg/L
Alkalinity		SM2320	2	mg/L
MBAS		425.1	0.5	mg/L
Chloride		300	2	mg/L
Fluoride		300	0.1	mg/L
Oil and Grease		1664	5	mg/L
Total Petroleum Hydrocarbons	1664	5	mg/L	
Specific Conductance	Grab	Field	1	umho/cm
pH		Field	0.0 – 14.0	std. units
Temperature		Field	0.1	deg C
Dissolved Oxygen		Field	0.1	mg/L
<i>NUTRIENTS</i>				
Dissolved Phosphorous	Flow-based composite Grab at receiving water stations	365.3	0.05	mg/L
Total Phosphorous		365.3	0.05	mg/L
Nitrate-Nitrite		300	0.1	mg/L
Total Ammonia-Nitrogen		350.3	0.1	mg/L
Total Kjeldahl Nitrogen		SM4500	0.1	mg/L
<i>BACTERIA</i>				
Total coliform	Grab	SM9221B	20	MPN/100mL
Fecal coliform		SM9221E	20	MPN/100mL
E. coli (fresh waters)		SM9221F	20	MPN/100mL

**Table 9-3 (cont.). Constituent Analysis for Urban Runoff Discharge and Receiving Water**

Constituent	Sample Type	EPA Method	Target Reporting Limit	Units
<i>METALS (total metals only)</i>				
Aluminum (Al)	Flow-based composite Grab at receiving water stations	200.8	100	µg/L
Antimony (Sb)		200.8	0.5	µg/L
Arsenic (As)		200.8	1	µg/L
Beryllium (Be)		200.8	0.5	µg/L
Cadmium (Cd)		200.8	0.25	µg/L
Chromium (total) (Cr)		200.8	0.5	µg/L
Copper (Cu)		200.8	0.5	µg/L
Hex. Chromium		200.8	5	µg/L
Iron (Fe)		200.7	100	µg/L
Lead (Pb)		200.8	0.5	µg/L
Mercury (Hg)		200.8	0.5	µg/L
Nickel (Pb)		200.8	1	µg/L
Selenium (Se)		200.8	1	µg/L
Silver (Si)		200.8	0.25	µg/L
Thallium (Tl)		200.8	1	µg/L
Zinc (Zn)		200.8	1	µg/L
Hardness		200.7	2	µg/L
<i>VOLATILE ORGANIC COMPOUNDS</i>				
2-Chloroethyl vinyl ether	Grab	8260	1	µg/L
MTBE			1	
<i>SEMI-VOLATILE ORGANIC COMPOUNDS</i>				
Acid Extractibles	Flow-based composite Grab at receiving water stations	8270 or 625		µg/L
Base/Neutral Extractibles				µg/L
PAHs			0.005-10	µg/L
<i>CHLORINATED PESTICIDES</i>				
<i>POLYCHLORINATED BIPHENYLS</i>		8081 or 608		µg/L
<i>ORGANOPHOSPHATE PESTICIDES</i>		8082 or 608		µg/L
		8141A		µg/L

In addition to the constituents listed in Table 9-3, water column toxicity monitoring is conducted at the receiving water locations during two non-consecutive years of the five year Permit term. Samples are collected from each receiving water monitoring station on four occasions during the year: two collections during storm events, including the first storm event of the year, and two collections during the dry season. Toxicity Monitoring was not scheduled for the 2003/04 Monitoring Year.

### *Wet Weather Event No. 1 – December 24, 2003*

Crews and sampling equipment were mobilized in advance of the incoming storm event. Clean carboys were installed at each of the four urban runoff discharge monitoring stations and samplers were programmed to take sample aliquots and fixed flow volume increments (a.k.a., volume-to-sample). For the purposes of establishing the sampling “flow pacing” the total storm volume is estimated based on forecasted precipitation. If the runoff volume is considerably different than the estimated volume (high or low), percent capture may be reduced, additional bottle changes may be required, or insufficient sample volume may be collected. No significant sampling problems were reported in the field notes or event summaries. However, based on field observations and the rainfall records at the fire station rain gage, the datalogger data from Smith Canal (a.k.a. Legion Park Pump Station) appears to be one hour off and set to Pacific Daylight Savings time (PDST). The date/times reported below reflect a one hour (earlier) adjustment. An overview of the sampling and antecedent conditions is provided in Table 9-5. Receiving water monitoring was performed successfully at all sites during the wet weather event.

### *Wet Weather Event No. 2 – February 2, 2004*

Crews and sampling equipment were mobilized in advance of the incoming storm event. This event occurred during the latter part of the dormant spray period. Clean carboys were installed at each of the four urban runoff discharge monitoring stations and samplers were programmed to take sample aliquots and fixed flow volume increments. This flow pacing was left at the same setting as was done for the first event in December 2003. The only significant problem that occurred was a broken composite bottle at the Duck Creek urban runoff location (DC-65). No composite sample volume for the storm event was recovered or analyzed, and an additional event was scheduled at this site and its associated receiving water location (see discussion below). Datalogger data were not downloaded from the Calaveras River urban runoff discharge monitoring location. An overview of the sampling and antecedent conditions is provided in Table 9-6. Receiving water monitoring was successfully performed at all locations, including Duck Creek, during this wet weather event.

### *Wet Weather Event No. 3 – February 16, 2004*

Crews and sampling equipment were mobilized in advance of the incoming storm event that was scheduled at the Duck Creek urban runoff discharge and receiving water locations only. This event was scheduled after the urban runoff discharge bottle was dropped and broken during the February 2, 2004 event. This event also occurred during the later part of the dormant spray period.

A clean carboy was installed at the Duck Creek urban runoff discharge monitoring station and the sampler was programmed to take sample aliquots and fixed flow volume increments. This flow pacing was left at the same setting as was done for the first two events. An overview of the sampling and antecedent conditions is provided in Table 9-7. Receiving water monitoring was successfully performed. No significant problems occurred and urban runoff discharge and receiving water samples were forward to the appropriate laboratories for analysis.

**Table 9-5. Rainfall, Runoff and Antecedent Conditions 12/24/03 Wet Weather Urban Runoff Event**

	Mosher Slough MS-14	Calaveras River CR-46 [1]	Duck Creek DC-65 [1]	Smith Canal SC-1 [1,2]
<b>Rainfall/Runoff</b>				
Time of first rain	12/23/03 13:36	12/24/03 3:00	12/24/03 3:00	12/24/03 3:00
Time of last rain	12/24/03 12:32	12/24/03 13:00	12/24/03 13:00	12/24/03 13:00
Total rain (in.)	0.42	0.4	0.4	0.4
Time of first sample	12/23/03 14:37	12/24/03 4:41	12/23/03 14:08	12/23/03 10:37
Time of last sample	12/24/03 14:12	12/24/03 13:13	12/24/03 14:12	12/23/03 12:56
Total runoff volume (kcf)	1,131	52	253	1,721
Peak flow (cfs)	59	2	34	72
Percent storm capture	>95%	76%	>95%	>50% [3]
Number of successful aliquots	18	53	66	24
End runoff period	NA	12/24/03 18:00	12/24/03 16:00	NA
Total sampling time	23.6 hours	8.5 hours	24.1 hours	2.3 hours
Grab time	12/24/03 8:10	12/24/03 8:40	12/24/03 7:20	12/24/03 7:15
<b>Receiving Water Flow</b>				
Sampling Time	12/24/03 11:40	12/24/03 10:30	12/24/03 14:00	12/24/03 9:05
Flow Measurement Time	12/24/03 10:00	12/24/03 14:30	12/24/03 10:30	12/24/03 9:36
Velocity (fps)	[4]	[4]	2.5	[4]
Width (ft)	[4]	[4]	35.7	[4]
Depth (ft)	[4]	[4]	14.2	[4]
<b>Antecedent Conditions [1]</b>				
Time of last precipitation		12/23/03 12:00		
Time since last precipitation		0.07 days		
Date of last storm $\geq$ 0.1 in.		12/23/03		
Time since last storm $\geq$ 0.1 in.		1 days		
Date of last storm $\geq$ 0.25 in.		12/19/03		
Time since last storm $\geq$ 0.25 in.		5 days		
Cumulative rainfall to date (in.)		5.2		

**Notes:**

- [1] Rainfall data based on Stockton Fire Station gage data (taken from CDEC).
- [2] Datalogger time shifted one hour earlier based on on-site observation that datlogger was set to PST.
- [3] Data records do not appear to cover entirety of runoff period. Percent capture is an estimate.
- [4] Not Recorded

**Table 9-6. Rainfall, Runoff and Antecedent Conditions 2/2/04 Wet Weather Event**

	Mosher Slough MS-14	Calaveras River CR-46 [1]	Duck Creek DC-65 [1,2]	Smith Canal SC-1
<b>Rainfall/Runoff</b>				
Time of first rain	2/2/04 6:04	2/2/04 7:00	2/2/04 7:00	2/2/04 6:00
Time of last rain	2/2/04 12:40	2/3/04 6:00	2/3/04 6:00	2/3/04 5:00
Total rain (in.)	0.56	0.88	0.88	0.9
Time of first sample	2/2/04 7:20			2/2/04 5:00
Time of last sample	2/2/04 14:20			2/2/04 14:09
Total runoff volume (kcf)	340			1,897
Peak flow (cfs)	49			133
Percent storm capture	100%	Data Not Available		65%
Number of successful aliquots	39			123
End runoff period	2/2/04 15:20			2/3/04 7:42
Total sampling time	7.0 hours			9.1 hours
Grab time	2/2/04 13:10	2/2/04 0:00	2/2/04 13:03	2/2/04 12:00
<b>Receiving Water Flow</b>				
Sampling Time	2/2/04 13:56	2/2/04 14:33	2/2/04 13:00	2/2/04 15:01
Flow Measurement Time	2/2/04 14:00	2/2/04 13:45	2/2/04 14:05	2/2/04 13:30
Velocity (fps)	2.0	7.0	0.3	1.0
Width (ft)	88.0	53.0	48.0	120.0
Depth (ft)	5.0	6.0	4.0	11.0
<b>Antecedent Conditions [1]</b>				
Time of last precipitation		1/27/04 18:00		
Time since last precipitation		5.50 days		
Date of last storm $\geq$ 0.1 in.		1/27/04		
Time since last storm $\geq$ 0.1 in.		6 days		
Date of last storm $\geq$ 0.25 in.		1/11/04		
Time since last storm $\geq$ 0.25 in.		22 days		
Cumulative rainfall to date (in.)		8.24		

[1] Rainfall data based on Stockton Fire Station gage.  
 [2] Urban runoff discharge composite sample not analyzed.

**Table 9-7. Rainfall, Runoff and Antecedent Conditions 2/16/04 Wet Weather Event**

	<b>Duck Creek DC-65 [1]</b>
<b>Rainfall/Runoff</b>	
Time of first rain	2/16/04 3:00
Time of last rain	2/16/04 13:00
Total rain (in.)	0.8
Time of first sample	2/16/04 3:42
Time of last sample	2/16/04 12:44
Total runoff volume (kcf)	415
Peak flow (cfs)	48
Percent storm capture	100%
Number of successful aliquots	88
End runoff period	2/16/04 13:03
Total sampling time	9.0 hours
Grab time	2/16/04 9:40
<b>Receiving Water Flow</b>	
Sampling Time	2/16/04 9:11
Flow Measurement Time	2/16/04 10:30
Velocity (fps)	1/0/00 2:24
Width (ft)	2/17/00 0:00
Depth (ft)	1/10/00 19:12
<b>Antecedent Conditions [1]</b>	
Time of last precipitation	2/6/04 22:00
Time since last precipitation	9.21 days
Date of last storm $\geq$ 0.1 in.	2/3/04
Time since last storm $\geq$ 0.1 in.	13 days
Date of last storm $\geq$ 0.25 in.	2/3/04
Time since last storm $\geq$ 0.25 in.	13 days
Cumulative rainfall to date (in.)	9.16

[1] Rainfall data taken from Stockton Fire Station gage.
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*Dry Weather Event No. 1 – May 16, 2004*

Composite and grab samples were collected at the urban runoff discharge sites and one-time grab samples were collected at all receiving water sites. Sample collection was performed during a dry weather period when the receiving water sites were not influenced by storm-related runoff. Table 9-8 summarizes sampling and antecedent conditions at all monitoring locations.

**Table 9-8. Sampling and Antecedent Conditions 5/16/04 Dry Weather**

	<b>Mosher Slough MS-14</b>	<b>Calaveras River CR-46</b>	<b>Duck Creek DC-65</b>	<b>Smith Canal SC-1</b>
<b>Urban Runoff Discharge</b>				
Grab time	5/16/04 12:00	5/16/04 12:15	5/16/04 13:15	5/16/04 13:30
<b>Receiving Water</b>				
Sampling Time	5/16/04 12:30	5/16/04 13:15	5/16/04 14:05	5/16/04 14:50
Flow Measurement Time	5/16/04 12:15	5/16/04 12:40	5/16/04 12:10	5/16/04 13:00
Velocity (fps)	1.0	[1]	2.0	2.5
Width (ft)	88	45	48	120
Depth (ft)	2.0	4.0	1.0	4.8
<b>Antecedent Conditions</b>				
Time of last precipitation		3/25/04 19:00		
Time since last precipitation		51.71 days		
Date of last storm $\geq$ 0.1 in.		3/25/04		
Days since last storm $\geq$ 0.1 in.		52 days		
Date of last storm $\geq$ 0.25 in.		3/25/04		
Days since last storm $\geq$ 0.25 in.		52 days		
Cumulative rainfall to date (in.)		12.6		

[1] Not recorded.

*Dry Weather Event No. 2 – June 13, 2004*

Composite and grab samples were collected at the urban runoff discharge sites and one-time grab samples were collected at all receiving water sites. Sample collection was performed during a dry weather period when the receiving water sites were not influenced by storm-related runoff. No significant problems were reported in the field notes. Table 9-9 summarizes sampling and antecedent conditions at all monitoring locations.



**Table 9-9. Sampling and Antecedent Conditions 6/13/04 Dry Weather**

	Mosher Slough MS-14	Calaveras River CR-46	Duck Creek DC-65	Smith Canal SC-1
<b>Urban Runoff Discharge</b>				
Grab time	6/13/04 12:15	6/13/04 12:10	6/13/04 13:00	6/13/04 13:00
<b>Receiving Water</b>				
Sampling Time	6/13/04 12:05	6/13/04 13:36	6/13/04 14:30	6/13/04 14:00
Flow Measurement Time	6/13/04 12:30	6/13/04 12:50	6/13/04 12:00	6/13/04 13:00
Velocity (fps)	2.0	0.3	3.0	2.0
Width (ft)	88	60	48	120
Depth (ft)	2.4	4.5	2.0	4.5
<b>Antecedent Conditions</b>				
Time of last precipitation		3/25/04 19:00		
Time since last precipitation		79.72 days		
Date of last storm $\geq$ 0.1 in.		3/25/04		
Days since last storm $\geq$ 0.1 in.		80 days		
Date of last storm $\geq$ 0.25 in.		3/25/04		
Days since last storm $\geq$ 0.25 in.		80 days		
Cumulative rainfall to date (in.)		12.6		

#### 9.1.7 Detention Basin Monitoring

During 2003/04, detention basin monitoring was conducted at three facilities: San Joaquin Area Flood Control Agency (SJAFCA), Duck Creek, and the Auto Center. The locations of these facilities are shown in Figure 9-1. One-time grab samples were collected from the inlet and outlet at all three detention basins during two separate storm events that generated sufficient runoff to produce a discharge from the detention basins (February 18 and 25, 2004). During each event the grab samples were analyzed for Turbidity, TSS, TDS, total coliform, fecal coliform, E. coli, and organophosphate pesticides. Three basin sediment samples (to a depth of 6 inches) were collected and composited. Sediment samples were collected from the detention basins during the 2003/04 dry period (June 16, 2004) as grab samples from the lower end of the basin where the greatest amount of stormwater collects. A discussion of data quality evaluation (i.e., quality assurance/quality control – QA/QC) is included in the next section of this report.

#### 9.1.4 Dry Weather Monitoring

The primary purpose of the dry weather monitoring program is to identify dry weather flows and potential illicit discharges and illegal connections (see SWMP Section 2). During the 2003/04 Monitoring Year, twenty-two outfalls were monitored between May 1 and September 30. Of these twenty two, seven were monitored twice. Temperature, pH, chlorine, total copper, total phenols, and methyl blue activated substances (MBAS – surfactants) were field tested at any outfall that had sufficient for proper measurement. Table 9-10 summarizes the dates and location of the

screening events.

**Table 9-10 Dry Weather Field Screening Events and Locations**

Station ID	Monitoring Site Location	Field Screening
14-35	Fort Donelson and Fourteen Mile Slough	6/25/04
14-36	I-5 and Fourteen Mile Slough	6/28/04
5M-129	5 Mile Creek 129	9/23/03
CR-43	West and the Calaveras River (north)	6/24/04, 6/25/04
CR-45	West and the Calaveras River (south)	5/16/04, 6/13/04
DC-65	Western Pacific Industrial Park and Duck Creek	5/16/04, 6/13/04
DC-69	Stagecoach and Duck Creek	6/28/04
DV-50	Singuinetti and the Diversion Channel	6/24/04, 6/25/04
DW-108	Wilshire at the Deep Water Channel	8/11/03
DW-111	San Jose at the Deep Water Channel	8/11/03
DW-113	Edison at the Deep Water Channel	8/12/03
DW-116	Van Buren at the Deep Water Channel	8/12/03
DW-117	Madison at the Deep Water Channel	8/12/03
DW-120	Commerce at the Deep Water Channel	8/14/03, 8/15/03
MS-21	El Dorado at Mosher Slough	6/28/04, 6/29/04
MS-172	Mosher Slough 172	6/29/04
PS-105	Pixie Slough near Deep Water Lane	9/23/03
SC-102	Occidental at Smith Canal	8/15/03
SC-103	Smith Canal near 2922 Shimizu	9/23/03
SC-104	Kingsley at Smith Canal	8/15/03
SJ-61	Eighth Street and the San Joaquin River	8/18/03, 8/19/03
SJ-161	Buckley Cove at the San Joaquin River	8/15/03

#### 9.1.5 Bioassessment Monitoring

Activities associated with the bioassessment monitoring during the 2003/04 Monitoring Year included:

- Continued coordination with the State Water Resources Control Board's (SWRCB's) Surface Water Ambient Monitoring Program (SWAMP);
- Revised the field and laboratory protocols (standard operating procedures [SOPs]) originally proposed in the October 2003 bioassessment monitoring plan based on modifications to the U.S. Environmental Protection Agency Environmental Monitoring and Assessment Program (EMAP) procedures and California Stream Bioassessment Procedures (CSBPs);
- Conducted field surveys to select and characterize study reaches;
- Submitted proposed study reaches and revised protocols to SWRCB for review and approval;

- Conducted field training and benthic macroinvertebrate (BMI) sampling of approved study reaches; and
- Initiated laboratory and quality assurance procedures.

The field and laboratory SOPs proposed in the original work plan prepared by Jones & Stokes for the City of Stockton (October 2003) were based on the U.S. Environmental Protection Agency's Environmental Monitoring and Assessment Program (EMAP) procedures and the California Stream Bioassessment Procedures (CSBP). At that time, modifications to these procedures were being developed but not yet available. After these modifications became available, members of SWAMP were contacted for recommendations. Jim Harrington of the California Department of Fish and Game's (CDFG's) Aquatic Bioassessment Laboratory (ABL) generally agreed with the methods proposed in the original work plan but had several recommendations based on the modified EMAP and CSBP procedures. Based on these recommendations, revisions to the monitoring work plan and schedule were prepared.

Following field surveys on April 27 and 28, 2004, seventeen reaches in the Stockton urbanized area were selected for bioassessment monitoring (see Table 9-11). Following approval of these reaches by the Central Valley RWQCB, a field crew was trained and collected BMI samples in these reaches from May 14 through May 21, 2004, using the revised field protocols.

Laboratory procedures (sample processing and taxonomic identification) and quality assurance procedures were initiated in June and are currently in progress. The remaining tasks, scheduled for completion by September 30, 2004, include bioassessment validation by CDFG's ABL, data management and analysis, and report preparation.

**Table 9-11. Bioassessment Monitoring Reaches for the City of Stockton and County of San Joaquin**

Reach	Watershed	Reach Length (feet)	Tidal Influence (Y/N)	UTM (NAD 83)	Location Description, Street Crossings	Sampling Method
WD-1	Walker Slough	500	Y	10 649917E 4198107N	Below I-5 crossing	ponar dredge
WD-2	Walker Slough	500	Y	10 651126E 4197663N	Above O'dell Avenue Crossing	ponar dredge
WD-3	Duck Creek	400	Y	10 651945E 4198435N	Above Railroad Yard, Below Airport Way Crossing	kick net
WD-4	Duck Creek	300	N	10 655076E 4199494N	Below Hwy. 99	kick net
WD-5	Duck Creek	250	N	10 656137E 4199974N	Above Stagecoach Road	kick net
CR-1	Calaveras River	500	Y	10 647417E 4205038N	Above I-5, Below Pershing Avenue	ponar dredge
CR-2	Calaveras River	500	Y	10 648707E 4205867N	Below El Dorado Street bridge	ponar dredge
CR-3	Calaveras River	500	N	10 650138E 4206446N	Below West Lane crossing	kick net
CR-4	Stockton Diverting Canal	500	N	10 654907E 4204601N	Above Hwy. 99, Below Fremont Street	kick net
CR-5	Stockton Diverting Canal	500	N	10 657753E 4202961N	Above East Main Street crossing	kick net
M-1	Mosher Slough	500	Y	10 643467E 4210678N	Below Mariners Road crossing	ponar dredge
M-2	Mosher Slough	500	Y	10 644843E 4210260N	Below Don Avenue crossing	ponar dredge
M-3	Mosher Creek	250	N	10 647860E 4210290N	Above El Dorado Street crossing	kick net
M-4	Mosher Creek	200	N	10 651468E 4211509N	Above Morada Lane	kick net
M-5	Mosher Creek	200	N	10 655708E 4213437N	Above Hildreth Lane crossing	kick net
S-1	Smith Canal	500	Y	10 646041E 4202724N	Below I-5 crossing	ponar dredge
S-2	Smith Canal	500	Y	10 647499E 4203209N	Below Pershing Avenue crossing	ponar dredge

## 9.2 Data Quality Evaluation

Quality assurance/quality control (QA/QC) refers to the process of reviewing laboratory and “field” initiated checks on the sampling and analytical process. These checks are used to confirm that data are of sufficient quality to report as “usable” These checks are also used to attach data qualifiers to usable data if a description of data quality is necessary. All water quality data are reviewed according to EPA guidance<sup>1</sup>. Laboratory reports are initially screened for missing analytical data (environmental and QA/QC), holding time violations, discrepancies in analytical methods or detection limits, and any apparent out-of-range environmental results. If the analytical work appears to be missing any requested analysis, the laboratory is asked to complete the missing analysis if it is possible to do so within the specified holding time. Data qualifiers are appended to the environmental data points where appropriate, applying the data quality objectives (DQOs) provided by the laboratories and based on Program experience.

The QA/QC analysis process identifies isolated incidents of out-of-range QA/QC performance, but more importantly identifies potentially larger trends in laboratory and sampling performance. An important and ongoing component of the QA/QC program is to report and correct these problems as they arise. In general, the data collected and reported here are considered of high enough quality for future use with only the qualifications noted in the Appendix I data report.

No significant problems with data quality were identified, however, there were some isolated instances of data rejection when it was determined that the lab performing *E. Coli.* analysis was not certified for that analysis. There were also isolated instances of high relative percent differences between duplicate samples. This likely occurred because of the significant heterogeneity of composite samples and the sample splitting process. Composite samples are manually mixed during sample splitting, however, particulates and other “rough” material tends to increase sample-to-sample differences. Finally, there were some instances when the required minimum levels (ML) were not achieved, especially for chlorpyrifos and some pesticides. The Program makes all efforts to find labs that are able to meet these requirements, and changed labs during mid-season to move closer to ML requirements.

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<sup>1</sup> Environmental Protection Agency. February 1994. *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*. (EPA-540/R-94-013)

Environmental Protection Agency. December 1994. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-94-090)

Environmental Protection Agency. April 1995. *Guidance on the Documentation and Evaluation of Trace Metals Data Collected for Clean Water Act Compliance Monitoring* (EPA-821/B-95-002)

### 9.3 Report of Water Quality Exceedances

Pursuant to Monitoring and Reporting Program requirements contained in the City and County's NPDES Permit, the Permittees must provide a summary of the monitoring data, including the identification of water quality improvements or degradation, and recommendations for improvements to the Stormwater Management Plan. All receiving water monitoring data must be compared with applicable water quality standards contained in the Basin Plan, the California Toxics Rule, and California Title 22. In addition, the Permit, in Provision D.1, requires the Permittees to develop a Report of Water Quality Exceedances when the Permittees determine that their stormwater discharges have caused or are causing an exceedance of applicable water quality standards.

A relatively simple and straight forward approach was used by the Permittees to address these Permit requirements. The approach consisted of two steps. First, water quality data collected at the receiving water sites were compared against available water quality objectives (WQOs) including the California Toxics Rule (CTR), the Central Valley Basin Plan and Title 22 incorporated drinking water maximum contaminant levels (MCLs), the USEPA dissolved aluminum aquatic life criterion, and California Department of Fish and Game (CDFG) pesticide objectives. Second, in cases where the reported receiving water concentration did not comply with the WQO, the potential impact from urban runoff was considered by comparing urban runoff concentrations to the WQO and the receiving water concentrations. Based on these comparisons receiving water WQO exceedances were classified as likely caused by urban runoff, possibly caused of urban runoff, or not caused by urban runoff. Those constituents that likely have an impact on receiving water WQO exceedances are discussed in more detail according to the report of water quality exceedances (RWQE) Permit requirements.

However, it should be noted that direct comparisons of receiving water constituent concentrations to the WQOs does not consider the duration or frequency of exceedances. Toxicity-based WQOs are based on both of these factors. Chronic and human health WQOs may not actually be exceeded because urban runoff influence is short term and episodic. Human health WQOs generally refer to a consistent exposure period over a lifetime (i.e., three liters of water consumed per day for seventy years), and chronic aquatic life WQOs refer to an exposure period of four days. The duration of storm event exposure depends on the hydrology of the creek or river, but is most likely more akin to an acute (instantaneous) exposure than a chronic exposure. As a result of these constraints, the approach used in this Annual Report should be viewed as a planning level effort to assess WQO exceedances.

Summaries of the exceedance analyses are presented in Tables 9-14 through 9-17 and indicate that urban runoff likely causes or contributes to receiving water WQO exceedances for three general constituent groups. Pathogen indicators (fecal coliform and *E. Coli*), some total metals, and diazinon were most consistently identified in the receiving water and urban runoff at concentrations above WQOs. Some other legacy pesticides and organic constituents were less consistently detected at concentrations above the WQO.

### Pathogen Indicators

The Basin Plan 30-day average objective (400 MPN/100mL) for fecal coliform has been removed and replaced with an instantaneous limit for E. coli (235 MPN/100mL) via Basin Plan Amendment adopted by the RWQCB. This amendment has not yet been approved by the Office of Administrative Law (OAL) and the USEPA. All receiving waters and urban runoff locations reported values as measured as event mean concentrations above both (current and proposed) WQOs during at least one event.

The typical sources of bacteria/pathogens are as noted below:

- Soils
- Birds
- Animals
- Sewage from leaks, spills and illicit connections
- Outdoor defecation
- Pet and livestock waste
- Diaper cleaning and disposal
- Landfills containing animal and human waste
- Wastewater Treatment Plant

The City already has in place control strategies that directly address pathogen and bacteriological concentrations in urban runoff. The existing programs include street sweeping, storm drain system cleaning and stenciling, illicit discharges elimination, and pet waste disposal stations at City parks. The Program submitted a Pathogen Plan in April 2004 that details a comprehensive monitoring and analysis program that will begin during the 2004/05 monitoring year. A primary effort of the Pathogen Plan is to identify bacteria sources and to expand or modify a program to address controllable sources (see Section 8.0 for a more complete discussion regarding the Pathogen Plan).

### Metals

Several metals were detected at concentrations above the WQO at both the receiving water and in urban runoff. Urban runoff may cause or contribute to exceedances of WQOs for the following metals:

- Copper (Cu), dissolved (CTR chronic and acute aquatic life objective)
- Copper (Cu), total (CTR chronic and acute aquatic life objective)
- Lead (Pb), total (CTR chronic aquatic life objective)
- Zinc (Zn), total (CTR chronic and acute aquatic life objective)

- Aluminum, total (Title 22 Secondary MCL)
- Iron (Fe), total (Title 22 Secondary MCL)

CTR metals criteria consider both acute and chronic compliance/exposure periods. Many of these metals have criteria that are hardness dependent. These CTR metals WQOs are promulgated as dissolved concentrations, however, the State Implementation Plan (SIP) requires use of total recoverable concentrations when developing effluent limitations for compliance. The total recoverable concentration is calculated using a default “translator” factor unless a site specific translator is developed. Both total recoverable and dissolved compliance is considered in this analysis. The measured values of copper, lead, and zinc exceeded freshwater CTR objectives. Chronic criteria refer to 4-day average concentrations and acute criteria refer to the highest concentration to which aquatic life can be exposed for a short period.

### *Copper*

Total and dissolved copper were reported above the CTR acute and chronic WQOs during one event (2/2/04) at the Calaveras River monitoring location and also at the associated urban runoff discharge location. Total copper also exceeded the CTR acute and chronic WQOs during the other wet weather event (12/24/03). The copper concentration at the Duck Creek sites during the third wet weather event (2/16/04) exceeded the CTR chronic criteria. As is also typical in other urban areas, urban runoff likely causes or contributes to the occurrence of WQO exceedances in the Calaveras River and Duck Creek.

The typical sources of copper are shown below:

- Atmospheric
  - Dust suspension
- Natural
  - Erosion
  - Water Supply
- Human Activities
  - Laundry gray water
  - Human waste
  - Vehicle service/repair
  - Corrosion
  - Coil coaters
  - Dry cleaners
  - Machine shops
  - Metal finishers
  - Household products
  - Food waste
  - Pools/spas
  - Tailpipe emissions
  - Carpet cleaners
  - Food service/ restaurants
  - Medical service
  - Plumbers
  - Illegal dumping
  - Vehicle washing
  - Root control CuS
  - Industrial facilities
  - Dentists
  - Laboratories
  - Metal fabricators
  - Printers



Radiator repair	Food processors	Surface cleaners
Wineries	Brake pad wear	Roof runoff

The City through the implementation of its Stormwater Management Plan has a number of control measures/BMPs that address metals in general. These control measures include street sweeping, catch basin cleaning, industrial/commercial inspections, illicit discharge elimination, and public education.

### *Lead*

The total lead CTR chronic WQO was exceeded at each of the four receiving water sites and their associated urban runoff discharge sites. The acute and dissolved-based WQO comparisons did not identify any additional WQO exceedances. Dissolved concentrations in urban runoff were not found to cause or contribute to exceedances of WQO, and are known to be the more bioavailable form of lead to aquatic life.

As is also typical in other urban areas, urban runoff likely causes or contributes to the occurrence of WQO exceedances in Stockton area receiving waters. Sources of lead in urban runoff are similar to copper and include the following:

#### Atmospheric

Dust suspension

#### Natural

Erosion

Water Supply

#### Human Activities

Carpet cleaning	Cooling tower blowdown	Paint
Surface cleaner	Industrial manufacturers	Tailpipe emissions
Auto recycling facilities	Vehicle service facility	Vehicle washing
Vehicle fluids/spills	Textiles/ceramics	Electronics
Machine shops	Metal finishers	Roof runoff
Airports/Aircraft	Ammunition	Arc lamps
Batteries	Laboratories (hospital, dentist, etc.)	

The City through the implementation of its Stormwater Management Plan has a number of control measures/BMPs that address metals in general. These control measures include street sweeping, catch basin cleaning, industrial/commercial inspections, illicit discharge elimination, and public

education.

### *Zinc*

The chronic and acute total zinc WQOs were exceeded during two wet weather events at the Calaveras River receiving water and urban runoff discharge sites and during one event at the Duck Creek receiving water and urban runoff discharge sites. No dissolved concentration based WQOs were exceeded at any of the monitoring sites during 2003-04.

As is also typical in other urban areas, urban runoff likely causes or contributes to the occurrence of WQO exceedances in Stockton area receiving waters. Sources of zinc in urban runoff are similar to copper and include atmospheric deposition, erosion, vehicle maintenance facilities, metal finishers, laboratories, surface cleaners, brake pads, and others. The City through the implementation of its Stormwater Management Plan has a number of control measures/BMPs that address metals in general. These control measures include street sweeping, catch basin cleaning, industrial/commercial inspections, illicit discharge elimination, and public education.

### *Total Aluminum*

The total aluminum Title 22 secondary MCL (1,000  $\mu\text{g/L}$ ) is incorporated into the Basin Plan by reference as potential taste or odor nuisance in drinking water. This WQO was exceeded only once in Smith Canal and associated urban runoff discharge. Although there are no drinking water intakes in the Smith Canal, this WQO is applied because of downstream locations. These downstream intakes are much further down the San Joaquin River after the influence of other significant creeks and rivers that may provide dilution. Application of WQOs should also consider these effects.

The aluminum WQO (87  $\mu\text{g/L}$ ) is based on a USEPA promulgated chronic (4-day average) criterion for the protection of aquatic life and is generally recognized as a dissolved concentration. There were no cases of both a receiving water and its associated urban runoff discharge exceeding this WQO.

Aluminum is a naturally occurring component of soil and composes 7-9% of the earth's crust by weight. Total aluminum is less bioavailable than the dissolved form. In most ambient cases, the total load of aluminum is heavily weighted toward the particulate bound form of aluminum that is suspended in turbid water conditions that often occur and can be more common in storm runoff conditions. A comparison to dissolved aluminum WQOs would be more appropriate and protective of aquatic life and human health.

Control of naturally occurring aluminum is difficult and there are no specific City source control programs for aluminum. However, solids control programs and efforts can directly affect the aluminum concentrations.

### *Total Iron*

Total iron concentrations were reported above the Title 22 Secondary MCL (300  $\mu\text{g/L}$ ) at receiving water and urban runoff discharge monitoring locations. However, all dissolved

concentrations of iron in the receiving water were below this WQO. Like aluminum, iron is naturally occurring in the earth's crust at relatively high concentrations and is predominantly transported in the environment bound to solids or as a solid. Urban runoff likely contributes to exceedances of the total iron drinking water MCL.

Control of naturally occurring iron is difficult and there are no specific City source control programs for iron. However, solids control programs and efforts can directly affect the total iron concentrations.

### Diazinon

Diazinon was reported above the CDFG chronic (0.05 µg/L) and acute (0.08 µg/L) WQOs at every receiving water location and every urban runoff discharge location except the Duck Creek discharge. As is typical in other urban and many agricultural areas, urban runoff contributes to exceedances of the CDFG WQOs. Diazinon is commonly used in household and agricultural pesticide applications. In December 2000, the USEPA initiated a program to phase out residential use of diazinon by 2004.

The Program prepared and submitted a Pesticide Study Work Plan in April 2004 that include monitoring and outreach programs to better understand the impact of diazinon on aquatic life and to perform outreach to the community on the appropriate usage of pesticides.

### Other Organics

A few additional pesticides and organic constituents were reported in the receiving water and the urban runoff discharge above a WQO. These pesticides (or chemical by-products of pesticide degradation) have been banned for residential use and are not in general circulation in California.

#### *Dieldrin*

Dieldrin was detected in one receiving water and one urban runoff discharge sample during the 2003/04 monitoring year. Dieldrin is a pesticide that was primarily used for cotton production and termite control, and is no longer commercially available for residential use in California. Dieldrin was banned by the USEPA for all uses except termite control in 1974 and for all uses in 1987/ Dieldrin is a persistent pesticide that can strongly bind to soil and solids and breaks down very slowly while bound to soil or in water.

#### *DDD and DDE*

DDD and DDE were reported above the CTR human health criteria in both dry and wet weather sampling of urban runoff discharge and receiving water locations. DDD and DDE are chemical degradation by-products of DDT. DDT was banned in the United States more than thirty years ago, but is still found in some locations because of its chemical persistence from the pre-1972 high level of use and is less likely due to present day illegal use. DDT tightly binds to soil and is primarily particulate borne.

*Pentachlorophenol*

The samples from the second wet weather monitoring event at the Calaveras River (receiving water and urban runoff discharge) monitoring site exceeded the CTR human health WQO (0.28 µg/L) for pentachlorophenol. However, the Calaveras River receiving water concentration was reported less than the minimum level, but above the method detection limit and is considered an estimate of the actual value. Because the concentration cannot be accurately quantified, it cannot be demonstrated that the WQO was exceeded.

**Table 9-14. Water Quality Objective Exceedances at Mosher Slough (MS-14)**

	Wet		Dry	
	SE33 12/24/03	SE34 2/2/04	DW01 5/16/04	DW02 6/13/04
<b>Pathogen Indicators</b>				
E. Coli	X√			
Fecal Coliform	X√	X√	√	X√
<b>Metals</b>				
Aluminum, total		√		X
Lead (Pb), total recoverable [1]	X√	√		
Iron (Fe), total	X	X	X	X
Mercury (Hg), total		X	X	X
<b>Pesticides</b>				
4-4'-DDT		X		
Diazinon	X√	X√	X√	√
<b>PAHs</b>				
Benzo (a) anthracene	X			
Benzo (b) fluoranthene	X			
Benzo (k) fluoranthene	X			
Chrysene	X			

Notes:

'X' - indicates WQO exceeded in receiving water

'√' - indicates WQO exceeded in urban runoff

SE33 - Storm event No. 33 (12/24/03)

SE34 - Storm event No. 34 (2/2/04)

DW01 - Dry weather event No. 01 (5/16/04)

DW02 - Dry Weather event No. 02 (6/3/04)

[1] Based on hardness adjusted CTR WQO and assumed default translator.

**Table 9-15. Water Quality Objective Exceedances at Calaveras River (CR-46)**

	Wet		Dry	
	SE33 12/24/03	SE34 2/2/04	DW01 5/16/04	DW02 6/13/04
<b>Pathogen Indicators</b>				
E. Coli	X√			
Fecal Coliform	X√	X√	√	√
<b>Metals</b>				
Aluminum, total		X√		
Copper (Cu), dissolved [1]	√	X√		
Copper (Cu), total recoverable [2]	X√	X√		
Iron (Fe), total	X√	X√	X√	X√
Lead (Pb), total recoverable [2]	X√	X√		√
Zinc (Zn), total recoverable [2]	X√	X√		
Mercury (Hg), total		X	X	X
<b>Organic Compounds and PAHs</b>				
Benzo (k) fluoranthene	X			
Dibenzo(a,h)anthracene		X		
Bis(2-ethylhexyl)phthalate	X			
Bis(2-chloroethyl)ether			X	
Pentachlorophenol	√	X√		
<b>Pesticides</b>				
4,4'-DDE	X		√	
4,4'-DDT	X	X		
4,4'-DDD	X			
Diazinon	X√	X√	√	

**Notes:**

'X' - indicates WQO exceeded in receiving water

'√' - indicates WQO exceeded in urban runoff

SE33 - Storm event No. 33 (12/24/03)

SE34 - Storm event No. 34 (2/2/04)

DW01 - Dry weather event No. 01 (5/16/04)

DW02 - Dry Weather event No. 02 (6/3/04)

[1] Based on hardness adjusted CTR WQO

[2] Based on hardness adjusted CTR WQO and assumed default translator.

**Table 9-16. Water Quality Objective Exceedances at Duck Creek (DC-65)**

	Wet			Dry	
	SE33 12/24/03	SE34 2/2/04	SE35 2/16/04	DW01 5/16/04	DW02 6/13/04
<b>Pathogen Indicators</b>					
E. Coli	X√		X√		
Fecal Coliform	X√	X√	√	√	X√
<b>Metals</b>					
Aluminum, total			X		
Aluminum, dissolved				X	
Copper (Cu), total recoverable [1]	√		X√		
Iron (Fe), total	√		X√	X√	√
Lead (Pb), total recoverable [1]	√		X√	X	
Zinc (Zn), total recoverable [1]			X√		
Mercury (Hg), total	X	X		X	
<b>Organic Compounds and PAHs</b>					
Bis(2-chloroethyl)ether				X	
Benzidine	X				
Bis(2-chloroethyl)ether				X	
Dibenzo(a,h)anthracene		X			
<b>Pesticides</b>					
Dieldrin			X√		
4,4'-DDT		X			
Diazinon		X	X		

**Notes:**

'X' - indicates WQO exceeded in receiving water

'√' - indicates WQO exceeded in urban runoff

SE33 - Storm event No. 33 (12/24/03)

SE34 - Storm event No. 34 (2/2/04)

SE35 - Storm event No. 35 (2/16/04)

DW01 - Dry weather event No. 01 (5/16/04)

DW02 - Dry Weather event No. 02 (6/3/04)

[1] Based on hardness adjusted CTR water quality objective and assumed default translator.

**Table 9-17. Water Quality Objective Exceedances at Smith Canal (SC-1)**

	Wet		Dry	
	SE33 12/24/03	SE34 2/2/04	DW01 5/16/04	DW02 6/13/04
<b>Pathogen Indicators</b>				
E. Coli	X√			
Fecal Coliform	X√	X√	√	X√
<b>Metals</b>				
Aluminum, total		X√		
Iron (Fe), total	X√	X√	X√	X√
Lead (Pb), total recoverable [1]	√	X√		
Mercury (Hg), total	X	X	X	X
<b>Pesticides</b>				
4,4'-DDD	X√		√	X√
4,4'-DDE	√	√	√	X√
Diazinon	X√	X√		
Heptachlor	X			

Notes:  
 'X' - indicates WQO exceeded in receiving water  
 '√' - indicates WQO exceeded in urban runoff  
 SE33 - Storm event No. 33 (12/24/03)  
 SE34 - Storm event No. 34 (2/2/04)  
 DW01 - Dry weather event No. 01 (5/16/04)  
 DW02 - Dry Weather event No. 02 (6/3/04)  
 [1] Based on hardness adjusted CTR WQO  
 [2] Based on hardness adjusted CTR WQO and assumed default translator.

## **10.0 – Program Implementation, Evaluation, and Reporting**

### **10.1 Overview**

The Stormwater Management Plan (SWMP) is implemented by various departments and divisions within the City. To ensure that the various department and division staff understand their roles and responsibilities under the SWMP, the City conducts a series of classroom and field training sessions which, among other things, address the program specific Control Measures and Performance Standards.

In addition to training, the City evaluates and reports on the effectiveness of its program by compiling and reviewing the program data on an annual basis. These assessments allow the City to identify trends, necessary improvements or data gaps and modifications that should be made within the SWMP in order to ensure that it remains effective in addressing stormwater pollutants.

### **10.2 Control Measures**

The City has developed several Control Measures to ensure that the stormwater program is effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Program Implementation, Evaluation, and Reporting Control Measures consist of the following:

<b>Control Measure</b>	
<b>Training</b>	
	Illicit Connections/Illegal Discharges Training
	Municipal Program Training
	Industrial/Commercial Program Training
	Construction Program Training
	Planning and Land Development Program Training
	Water Quality Monitoring Program Training
<b>Program Evaluation</b>	
	Annual Evaluation
<b>Reporting</b>	
	Annual Work Plan
	Annual Report
	Report of Waste Discharge

The next section of the annual report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Program Implementation, Evaluation, and Reporting Performance Standards and implementation schedules.



### 10.3 Training

The ultimate success of the SWMP is directly related to and dependent upon the implementation and effectiveness of the training program efforts. In fact, an effective training program is one of the most effective pollution prevention Best Management Practices (BMPs) that can be implemented because it prompts behavioral changes that are fundamentally necessary to protect water quality.

The control measures and corresponding performance standards and activities for training that have been initiated and/or completed during this reporting period are summarized below.

#### 10.3.1 Control Measure – Illicit Connections/Illegal Discharges Training

##### 10.3.1.1 Performance Standard – Develop Training Modules

An Illicit Connection/Illegal Discharges (IC/ID) classroom training module was developed for key staff identifying or responding to complaints. The training module provides a general overview of the stormwater program and illicit discharge element as well as specific information regarding the detection, response, investigation and elimination of illicit discharges and illegal connections. The training module will assist staff by identifying how they can respond to and correct the illicit connections and illegal discharges encountered.

##### 10.3.1.2 Performance Standard – Provide/Attend Bi-Annual Training

- a) Did the City provide and/or have key staff attend IC/ID training this past reporting period?  
*(required once by June 30, 2004 and once by June 30 2006)*

**Yes**  No, the bi-annual training is not required this year

- b) If **yes**, a summary of the training session(s) that was held is provided below

Date of Training	Number of Attendees	Staff Positions Trained	City Departments or Divisions Participating
6/15/04	1	Environmental Control Officer	City of Stockton, Municipal Utilities Department
6/15/04	4	Environmental Control Officers (3) Environmental Control Supervisor (1)	OMI-Thames Water Stockton, Inc.

10.3.2 Control Measure – Municipal Program Training

10.3.2.1 Performance Standard – Develop Training Modules

A Municipal Program classroom training module was developed for key staff responsible for managing facilities and conducting field activities. The training module provides a general overview of the stormwater program and municipal program element as well as specific information regarding the practices that should be implemented while managing facilities such as pollution prevention activities, landscape and pest management and parking lot maintenance. The module also provides specific information regarding the practices that should be implemented while conducting field based municipal activities such as storm drain stenciling, storm drain system maintenance, and street cleaning and maintenance.

10.3.2.2 Performance Standard – Provide/Attend Annual Training

- a) Did the City provide and/or have key operations staff attend municipal program training this past reporting period?

Yes  No

- b) If **yes**, a summary of the training session(s) that was held for is provided below

<b>Date of Training</b>	<b>Number of Attendees</b>	<b>Staff Positions Trained</b>	<b>City Departments or Divisions Participating</b>
Beginning 1/27/04 and throughout the month	300	Firefighter, Engineers, Capt., Battalion Chiefs	City Fire Dept. – safety personnel
3/26/04	52	Road Maintenance, Engineers, Building Inspectors, Construction Inspectors (both line staff and supervisors)	Public Works – Engineering, Road Maintenance Community Development – Building Inspectors Admin. Services - Central Building Maintenance Municipal Utilities Dept. - Stormwater Division.

10.3.2.3 Performance Standard – Provide/Attend Bi-Annual Training

- a) Did the City provide and/or have key design staff attend municipal operations training this past reporting period? (*required once by June 30, 2005 and once by June 30 2007*)

Yes  No, the bi-annual training is not required this year

b) If **yes**, a summary of the training session(s) that was held is provided below

Date of Training	Number of Attendees	Staff Positions Trained	City Departments or Divisions Participating
6/22/04	12	Collection System Operators & Supervisor	OMI/Thames Water
6/22/04	1	Environmental Control Officer	City of Stockton Municipal Utilities Dept.

10.3.3 Control Measure – Industrial/Commercial Program Training

10.3.3.1 Performance Standard – Develop Training Modules

An Industrial/Commercial classroom training module was developed for key staff conducting inspections. The training module provides a general overview of the stormwater program and industrial/commercial inspection element as well as specific information regarding common industrial and commercial facility activities and the Best Management Practices that should be implemented in order for the facility to be protective of water quality.

The training module will assist staff conducting inspections of selected industrial and commercial businesses by identifying problematic activities and conditions as well as appropriate follow-up actions to ensure pollutants are reduced in runoff.

10.3.3.2 Performance Standard – Provide/Attend Bi-Annual Training

a) Did the City provide and/or have key staff attend industrial/commercial training this past reporting period? (*required once by June 30, 2004 and once by June 30 2006*)

**Yes**  No, the bi-annual training is not required this year

b) If **yes**, a summary of the training session(s) that was held is provided below

Date of Training	Number of Attendees	Staff Positions Trained	City Departments or Divisions Participating
6/15/04	1	Environmental Control Officer	City of Stockton, Municipal Utilities Department
6/15/04	4	Environmental Control Officers (3) Environmental Control Supervisor (1)	OMI-Thames Water Stockton, Inc.

10.3.4 Control Measure – Construction Program Training

10.3.4.1 Performance Standard – Develop Training Modules

A training module will be developed to ensure that staff conduct comprehensive inspections of active construction sites and provides appropriate follow-up action to reduce pollutants in runoff.

a) Did the City develop a module for training construction program staff?

Yes  No

If **yes**, describe the subject material and format for the training program module.

Two three-hour sessions were held on March 26, 2004 for 52 City of Stockton employees who work in the construction program. The training was presented by Hossain Kazemi of Stormwater Compliance Specialists. The first session was specifically directed to those in the construction program, the second was focused on road maintenance. The information was presented in PowerPoint and began with an overview of the Clean Water Act and the NPDES program requirements. The six program areas were discussed with the use of photos to illustrate the right and wrong ways to implement BMPs. The TOP 13 Problems on Construction Sites gave an overview of potential construction problems. Each attendee was given a packet of material which included a hardcopy of the PowerPoint program. In addition, the packet included two hand-outs: 1) Construction Site Pollution Prevention Measures – What Inspectors Should Look For; 2) Erosion and Sediment Control Measures – What Inspectors Should Look For. Each attendee also completed a Training Course Evaluation. (See attached for training materials)

10.3.4.2 Performance Standard – Provide/Attend Annual Training

a) Did the City provide and/or have key inspection staff attend construction training this reporting period? (*required annually*)

Yes  No

b) If **yes**, a summary of the training session(s) that was held for is provided below

<b>Date of Training</b>	<b>Number of Attendees</b>	<b>Staff Positions Trained</b>	<b>City Departments or Divisions Participating</b>
10/20/2003	65	Contractors/Developers & City & County Inspectors	SJ County and City of Stockton Municipal Utilities Dept.
3/26/04	52	Road Maintenance, Engineers, Building Inspectors, Construction Inspectors (both line staff and supervisors)	Public Works – Engineering, Road Maintenance Community Development – Building Inspectors Admin. Services - Central Building Maintenance Municipal Utilities Dept. - Stormwater Division.

10.3.4.3 Performance Standard – Provide/Attend Bi-Annual Training

a) Did the City provide and/or have key plan review staff attend construction training this past reporting period? (*required once by June 30, 2005 and once by June 30 2007*)

Yes  No, the bi-annual training is not required this year

10.3.5 Control Measure – Planning and Land Development Program Training

10.3.5.1 Performance Standard – Develop Training Modules

A Planning and Land Development classroom training module was developed for key staff involved in developing, reviewing and approving development projects. The training module provides a general overview of the stormwater program and planning and land development element as well as specific information regarding applicable projects and the criteria/standards for selecting stormwater pollution control measures in order for the development to be protective of water quality. The training module will assist staff in ensuring that new and re-development projects to comply with the Stormwater Quality Control Criteria Plan

10.3.5.2 Performance Standard – Provide/Attend Annual Training

a) Did the City provide and/or have key staff attend training this reporting period (*required annually*)?

Yes  No

b) If **yes**, a summary of the training session(s) that was held is provided below

<b>Date of Training</b>	<b>Number of Attendees</b>	<b>Staff Positions Trained</b>	<b>City Departments or Divisions Participating</b>
2/3/2004	57	Planning Staffs, Plan Checkers, Engineers, Consultants, Building and Construction Inspectors, Developers and Contractors	Private Contractors and Developers, Consulting Firms, City of Modesto, SJ County, City of Stockton PWs, Community Development, Housing & Redevelopment, and Municipal Utilities Departments
2/4/2004	61	Planning Staffs, Plan Checkers, Engineers, Consultants, Building and Construction Inspectors, Developers and Contractors	Private Contractors and Developers, Consulting Firms, City of Modesto, SJ County, City of Stockton PWs, Community Development, Housing & Redevelopment, and Municipal Utilities Departments

10.3.6 Control Measure – Water Quality Monitoring Program Training

10.3.6.1 Performance Standard – Develop Training Modules

A Water Quality Monitoring classroom training module was developed for key staff implementing the monitoring program. The training module provides a general overview of the stormwater program and water quality monitoring program plan/objectives as well as specific information regarding field sampling logistics, preparation activities, and clean sampling techniques. The training module will assist staff conducting the water quality monitoring program so that they are consistent with the monitoring work plans and standard monitoring protocols.

10.3.6.2 Performance Standard – Provide/Attend Annual Training

a) Did the City provide and/or have key staff attend training this reporting period?

**Yes**  No

b) If **yes**, a summary of the training session(s) that was held is provided below

<b>Date of Training</b>	<b>Number of Attendees</b>	<b>Staff Positions Trained</b>	<b>City Departments or Divisions Participating</b>
6/15/04	11	Environmental Control Officers (4) Environmental Control Supervisor (1) Laboratory Supervisor (1) Mechanical Maintenance (5)	OMI-Thames Water Stockton, Inc. City of Stockton, Municipal Utilities Department

**10.4 Program Evaluation**

The Stormwater Management Program is evaluated on an annual basis to assess the overall effectiveness of the stormwater program. To complete this overall assessment each program element is evaluated individually based on the identified control measures, performance standards and assessment tasks. These performance standards are considered to be the level of implementation that the City must achieve in order to have an effective program. As discussed in each section of the Annual Report each program element has been evaluated and appropriate modifications identified.

**10.5 Reporting**

The City and County of San Joaquin coordinated their efforts in developing standardized formats for all reports that are required pursuant to the stormwater Permit. This includes annual reports, fiscal analysis reports and program effectiveness reports. Pursuant to the federal regulations, all work plans and reports are signed and certified.

#### 10.5.1 Performance Standard – Annual Work Plan

The Annual Work Plan is developed and submitted to the Regional Board by April 1 of each year. The Work Plan summarizes the proposed activities that the City will undertake during the next fiscal year.

- a) Did the City compile and submit the Annual Work Plan by April 1 to the Regional Board?

Yes  No

- b) Based on the annual evaluation of the stormwater management program are there any changes to the April 1 Work Plan?

Yes  No

#### 10.5.2 Performance Standard – Annual Report

The annual report is submitted in both electronic and hard copy to the Board by September 1 of every year. The purpose of the Annual Report is to document the status of the SWMP implementation, present results from activities implemented, provide a compilation of deliverables and milestones reached during the previous fiscal year and report on the overall status and effectiveness of the SWMP.

Although the format used for the annual report was, in part, based on the original format that was included as Attachment B to the Permit, the Permittees revised the standardized format and submitted it to the Regional Board on June 30, 2004. It is expected that the format will change slightly from year to year due to the dynamic nature of the program.

#### 10.5.3 Performance Standard – Report of Waste Discharge

The municipal stormwater Permit expires on October 1, 2007. As a result, the City and County are required to submit a Report of Waste Discharge (ROWD) to the Board 180 days prior to its expiration (April 1, 2007). The ROWD serves as the application for the re-issuance of the permit.

- a) Did the City initiate the preparation of the Report of Waste Discharge?

Yes  No, it is not due until April 1, 2007