STORM WATER MANAGEMENT PROGRAM

For The

CITY OF LIVINGSTON

February 2007

Under the California State Water Resources Control Board
General Permit for MS4s WQ Order No. 2003-0005-DWQ

Permittee Fact Sheet

City of Livingston

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Population (2006): 12,614 per California Department of Finance

Notice of Intent

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Number Co-permittee with Merced County

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Section 1 - Introduction

This Storm Water Management Program (SWMP) describes the storm water quality management activities proposed by the City of Livingston (City) in compliance with the federal storm water quality regulations, 40 CFR, Part 122 et seq. (Phase II), Porter-Cologne Water Quality Control Act § 13376, and with the State Water Resources Control Board General Permit for Small Municipal Separate Storm Sewer Systems (MS4s), WQ Order No. 2003-0005-DWQ.

The City of Livingston, in conjunction with Merced County, has filed the Notice of Intent to participate the State's General Permit. The federal and state regulations require designated MS4s to develop a plan to undertake six Minimum Control Measures (MCMs). The permittees are also required to demonstrate a 5-year work plan, with a reasonable budget for the activities. The Storm Water Pollution Prevention Plan must also include performance measures for the work plan. This report describes the control measures, work plan, budget and performance measures for the City of Livingston.

The Minimum Control Measures include:

1. Public Outreach and Education

2. Public Participation and Involvement
3. Illicit Discharge Elimination
4. Construction Site BMPs Over 1 Acre
5. Post Construction BMPs
6. Municipal Activities

The City of Livingston provides positive storm drainage for the community. The storm drainage system includes pipelines, local and regional detention and retention basins, as well as discharges to the Merced Irrigation District (MID). Storm drainage serves residential, commercial, industrial, City parks, and undeveloped land uses. The City of Livingston is a full service municipality providing water, sewer, storm drainage, streets and park services to the community.

The objectives of this Storm Water Pollution Prevention Plan are:

- To meet the requirements of 40 CFR, Part 122, Porter-Cologne Water Quality Control Act § 13376, and the SWRCB General Permit # WQ Order No. 2003-0005-DWQ.
- To address storm water quality concerns specific to the community.
- To provide a plan consistent with the community's values and means.
- To involve the community in development and implementation of the plan in order to meet the requirements in the most cost-effective manner.

Section 2 - Storm Water System Description and Needs Assessment

This section describes the City, their storm drainage system, storm water quality concerns, projected growth, and demographics. This section also describes the current status of storm water quality control measures implemented by the City. The needs assessment for the City's Storm Water Management Program, based on current activities and the presence of potentially polluting factors in the storm water system are addressed herein. There is not enough site-specific information currently available in the City of Livingston to identify specific pollutant sources and their loading.

Description of the City Storm Water Infrastructure

The Livingston storm water system is composed of neighborhood underground collections systems, twelve detention/retention basins, twelve storm water pump stations, storm water underground trunk lines and five discharge points to the Merced Irrigation District (MID). Storm water is disposed of by percolation, and by discharge to MID laterals and canals. Discharge to the MID irrigation system from detention basins begins as soon as significant storm runoff arrives at a detention basin. The majority of storm runoff in the City goes through storm basins. A few existing neighborhoods have direct discharge to the canal. Discharge to MID facilities is permitted under Drainage Agreements between MID and the City.

The City's design previous standard for storm water facilities is based on the method as presented in the December 1992 Storm Drain Collection System Study and Master Plan by Lew-Garcia-Davis. New storm water drainage and conveyance facilities are to be designed for 10-year, 24-hour storm and detention/retention facilities are to be designed for a 100-year, 24-hour storm peak.

Some areas have flooding problems due to the lack of positive drainage facilities. Storm drain inlet plugging and street ponding are generally cleared by City crews within 2 hours. During major storms, the most significant problems are localized street flooding and the large amount of storm water that enters the sanitary sewer system causing high flow problems through the wastewater treatment plant.

The City eliminates any illegal discharges to the storm water system whenever they are found. The City of Livingston does operate a few older combined sewer and storm water pipelines or discharges. The only treatment received by the separate storm water system occurs in a limited manner at the detention and retention basins.

Storm Water Operations and Maintenance

The City conducts a variety of municipal operations that have a relationship to storm water quality, including storm water, water, sewer, street sweeping, leaf collection program, streets maintenance, parks maintenance, fire fighting, and fleet operations.

Many of these operations have current service standards that reduce impacts on storm water quality. Most of these municipal operations are housed at the Corporation Yard at 2238 Walnut Avenue.

Storm Drainage

Overall the City of Livingston's storm drainage system is in good condition. Storm water lift stations and pipelines are cleaned and repaired as needed. Drain inlets are cleaned once a year before the beginning of winter. Storm basins receive spring weed spraying, disking or mowing as needed.

Storm Water Consulting, Inc. and Harris and Associates Engineering completed a new Storm Drain Master Plan in September 2006. This Master Plan will serve as a design guide for all future storm water facilities needed to serve new development.

Water and Sewer Field Operations

Sewer collection and water distribution operations staff respond to water line breaks and sewer backups as needed. The City has an established procedure for responding to sewer spills that might impact storm drainage and public health. During a sewer spill, catch basins are sandbagged to prevent release to receiving waters, spilled sewage is vacuumed up and transported to the wastewater treatment plant, and the street is disinfected with chlorine solution.

The Waste Water Treatment Plant operates under a permit issued by the Central Valley Regional Water Quality Control Board. The City's WWTP is not required to have an industrial pretreatment program. The City does have a water conservation program that includes public education and information. This program will be expanded to include storm water quality messages for the community.

Streets

Asphalt maintenance activities include overlays, pothole patching and crack sealing. Currently, the City's capital improvement program includes reconstruction of streets. Streets operations include street lighting, traffic signals and signage.

Street Sweeping, Leaf Collection Program

Street sweeping is performed by City staff. Residential streets are swept weekly. Commercial and industrial areas are swept at least weekly. The collected street sweepings are hauled to a compost facility. The leaf collection program is performed by Public Works staff. Leaves and limbs are set out in street piles in residential areas for pickup during winter months. The collected leaves and limbs are hauled off. Street piles are a potential source of organic material in storm runoff.

Parks Maintenance

The City operates four parks and recreational facilities. Parks maintenance includes the application of fertilizer and pesticides, mowing, pruning, parking lot sweeping, and litter removal.

Three storm detention basins are dual use basins, used for recreation purposes. Chemical usage is conducted at agronomic rates and at appropriate times to minimize chemical release in runoff.

Fire Fighting

The Merced County Fire Department is responsible for fire fighting within City limits. Fire fighting can result in runoff of excess fire fighting water to storm drains. The potential for fire fighting water containing pollutants has not been assessed, but is not expected to be a significant source.

Fleet

The City operates a fleet of cars, work trucks and heavy equipment for Public Works, Municipal Services, and Park/Recreation functions. The fleet is operated and maintained at the Corporation Yard. Vehicle maintenance is conducted under cover. Vehicle washing occurs on a paved area. There are two above ground fuel tanks located at the Corporation Yard.

Corporation Yard

The City's Corporation Yard, is the site for vehicle parking and maintenance, building maintenance supplies, and the field office for streets, water, sewer and storm drain operations. The Corporation Yard would benefit from a detailed review of its activities and their potential for exposing deleterious materials to storm runoff. The containment of paving materials, industrial chemicals, batteries, vehicle drips, and painting materials need to be addressed. The City does not have a formal program for training its field employees in storm water quality management.

Storm Water Quality

The City's land uses include residential, commercial and industrial areas. These land uses have the potential to generate pollutants. Community activities that are likely to be contributing to runoff pollution include automobile maintenance and washing, building construction, landscape maintenance, pest control, restaurants, aging sewers, pet waste disposal, municipal infrastructure maintenance, industrial activities, new development and redevelopment.

The City of Livingston does not conduct any specific or routine monitoring of storm water quality. No particular chronic or acute concerns have been identified with Livingston's storm water quality to date. City staff has not observed non-storm water discharges or flows from the following list (as defined in the General Permit section D.2.c(6)) that are significant contributors of pollutants to their MS4:

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground waters
5. Uncontaminated ground water infiltration to separate storm sewers
6. Uncontaminated pumped ground waters
7. Discharges from potable water sources
8. Foundation drains
9. Air conditioning condensation
10. Irrigation water
11. Springs
12. Water from crawl space pumps
13. Footing drains
14. Lawn watering
15. Individual residential car washing
16. Flows from riparian habitats and wetlands, and
17. Dechlorinated swimming pool discharges

Projected Community Growth

Livingston is mostly a residential community, with a downtown commercial core, and a small industrial area. The City's population was estimated at 12,614 by the State Department of Finance in 2006. The population increased about 10% last year making it a relatively the fast growing City. The City continues to add or replace infrastructure to accommodate residential and commercial growth.

The total maintained streets is now approximately 36 miles. The City is currently finalizing the update to its General Plan and future planned growth of the City is being included. The plan for future storm water infrastructure requires that new development will construct and dedicate necessary storm drainage facilities as shown in the Storm Drainage Master Plan.

The community is diverse, both in an economic and ethnic sense. The two most commonly used languages are English and Spanish. There is also a significant population utilizing the Punjabi language.

Funding of Storm Water Activities

Storm water operations and maintenance costs are funded by the General Fund and newly formed lighting and landscape districts. There is a separate line item for Storm Water Operations & Maintenance in the City budget.

New storm drainage infrastructure is constructed by developers in accordance with City design standards, and then dedicated to the City, or constructed by the City through the use of funds already collected through developer fees. Some ongoing operations and maintenance costs for newly developed areas are covered by assessment districts, managed by the City. Capital funding for rehabilitation of existing storm drainage facilities is provided by local transportation, gas taxes, and State or Federal grants. The capital improvement program funding level for storm water purposes varies depending on annual funding and over all capital improvement program priorities.

Legislative Authority for Storm Water Activities

Livingston was incorporated in 1922, empowered to provide public works services, collect service fees, and to set regulations related to storm water quality. The City establishes an annual budget based on established service standards for storm drainage and other municipal maintenance activities.

The City of Livingston's Municipal Code addresses various aspects of storm water quality control. The Municipal Code will need to be updated to incorporate storm water quality measures relevant to the SWRCB General Permit. Among the topics to be evaluated are the prohibition on pollutant discharges to the storm drainage system, construction activity procedures and fees, and the enforcement protocol for violations.

Receiving Streams

Storm Runoff

The City of Livingston storm water system discharges to several locations along the MID canal, which then discharges to the Merced River, and ultimately flows in the San Joaquin River. Because the Merced River is a major watershed of the State, the City's storm water discharge volume represents a minor percentage of the river's storm event flow. No data is available on the quantity of non-storm runoff from the City of Livingston.

Receiving Stream Quality

The City of Livingston discharges a significant amount of its storm water to the Merced and then ultimately the San Joaquin River. Both the Merced and San Joaquin River are listed as an impaired water body on the 2002 California 303(d) list by the Central Valley Regional Water Quality Control Board (CVRWQCB). Table 2.1 is an extract of the relevant 303(d) listing information.

Table 2.1

Extract of 2002 California CWA Section 303(d) List and TMDL Priority Schedule (CVRWQCB)

Pollutant/Stessor	Source	Priority
Merced River (McSwain Reservoir to San Joaquin River)		
Chlorpyrifos	Agriculture	Medium
Diazinon	Agriculture	Medium
Group A Pesticides	Agriculture	Low
San Joaquin River (Merced River to South Delta Boundary)		
Boron	Agriculture	High
Chlorpyrifos	Agriculture	High
DDT	Agriculture	Low
Diazinon	Agriculture	High
Electrical Conductivity	Agriculture	High
Group A Pesticides	Agriculture	Low
Mercury	Resource Extraction	Medium
Unknown Toxicity	Unknown	Low

The 303(d) listed pollutants of concern in the rivers to which Livingston storm water system is tributary are chlorpyrifos, DDT, diazinon, electrical conductivity, Group A pesticides, mercury, unknown toxicity, organic enrichment, and boron. Of these, only chlorpyrifos, diazinon, organic enrichment and unknown toxicity are shown as potentially related to urban runoff and storm sewers.

To the extent that the City's runoff is a source of these pollutants or stressors, Livingston may be called on in the future to participate in TMDL proceedings to reduce the load of these pollutants to the river. Chlorpyrifos is the most widely used pesticide in the US. It is used in agriculture, commercial and residential landscaping and as termiticide. Diazinon is a dormant spray pesticide used in orchards and on backyard fruit trees, and has been documented as being present in urban runoff in other cities in the San Joaquin Valley.

Organic enrichment occurs when dissolved nutrients, such as nitrate, potassium or phosporus are contained in discharges to a river, caused reduced dissolved oxygen in the stream. Organic enrichment usually is present in urban runoff due to garden fertilizers, animal waste, and trash washed off streets.

The sources of unknown toxicity have yet to be determined for the San Joaquin valley's stream. It is possible that toxicity to aquatic wildlife occurs due to a combination of pollutants and stressors in runoff to the streams. The mitigation of unknown toxicity by the CVRWQCB will take a coordinated effort by scientists, discharges and wildlife agencies. The elimination of other known pollutants and stressors will likely be the CVRWQCB's first approach to addressing toxicity on a regional basis.

Related Regulatory Activities on the Merced River

The Merced River is a critical waterway of the State, and is the subject of a number of varied water quality activities. MID has been closely involved the river's water quality by means of their canals that discharge irrigation and storm water. The discharges of storm water to the Merced River are relevant to water quality. The Merced is tributary to the San Joaquin River, the Delta and San Francisco Bay. This means that the Merced River's water quality is also a concern of the Bay-Delta proceedings of the SWRCB, for both water quality and quantity.

The efforts of regulatory agencies and responsible parties to address other water quality impairments in the San Joaquin River watershed will have a relationship to the quality of Livingston's storm water runoff over time. Therefore, the City will need to remain involved in regional water quality issues to make sure the City's Storm Water Management Program is coordinated with regulatory actions for multiple pollutants.

Section 3 - Storm Water Management Program

Approach

The City of Livingston assumes that a typical level of urban runoff pollution exists in its storm water runoff and that a variety of citywide pollution prevention activities can be adopted to minimize that pollution. Insufficient evidence is available about specific sources of pollutants and their loading rates to develop a more targeted approach. The pollution prevention activities to be undertaken are organized into the following Minimum Control Measures:

1. Public Outreach and Education
2. Public Participation and Involvement
3. Illicit Discharge Elimination
4. Construction Site Best Management Practices
5. Post Construction Best Management Practices
6. Municipal Activities

The approach to storm water pollution prevention will also be an adaptive management plan. The results of each year's activities will be evaluated in preparation for the next year's work. Priorities and scheduling of activities may change from this initial plan based on the needs of the community to meet the overall objective of reducing the potential for pollution in urban runoff.

This section outlines the control measures in each of the 6 categories to be undertaken during the 5-year permit period. It is proposed that the City hold an annual planning meeting to determine which tasks they will conduct. This decision should then be incorporated into the City's annual budget preparation.

1. PUBLIC OUTREACH AND EDUCATION

City of Livingston Storm Water Management Program

Minimum Control Measures #1: Public Outreach and Education				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 1.A.1 Purchase Bi-Lingual Education Materials	Acquire education materials in English and Spanish. Translate in to Punjabi.	Jul-07	Public Works/Staff	Purchase bilingual flyers.
Task 1.A.2 Distribute Educational Materials by Mail	Send out flyers in City water/sewer bills.	Oct-07	Public Works/Staff	Survey 100 residents annually by phone to verify receipt.
Task 1.A.3 Distribute Educational Materials at Events	Attend four community events to distribute education materials.	Jul-07	Public Works/Staff	Distribute bilingual flyers annually to 500 residents.
Task1.A.4 Review Results of Public Education Program	Summarize and document all storm water materials distributed annually.	Aug-08	Public Works/Director	Include distribution log in annual report to RWQCB.
Task 1.B.1 Distribute BMP Materials to Auto Repair/Restaurants	Create priority list of businesses for participation in education workshop.	Jul-07	Public Works/Staff	Survey businesses annually by phone to verify receipt.
Task 1.B.2 Follow-up with Auto Repair Shops and Restaurants	Annually visit and provide materials to priority businesses.	Dec-07	Public Works/Staff	Survey 5 restaurants and 3 auto repair shops to discuss.
Task 1.B.3 Distribute BMP Materials to Businesses	Hold workshop for all City businesses to educate them on the storm water program and responsibilities.	Oct-07	Public Works/Staff	Maintain a workshop attendance log and agenda.

The objectives of the Public Outreach and Education Element of this Storm Water Management Plan are:

- To raise public awareness that citizen actions has an impact on storm water quality in the City's system.
- To involve the public in the development of the Storm Water Management Plan, and
- To develop support for the necessary funding.

A. General Public Education on Storm Water Quality Impacts and Prevention Measures.

The purpose of these tasks is to provide the widest communication with the general public about what they can do to prevent storm water pollution. Because Livingston has a significant multi-lingual population, public information needs to be provided in at least English, Spanish and Punjabi. Public outreach should also be implemented at cultural events where different groups may be reached most effectively.

Task 1.A.1
Develop or purchase bi-lingual public outreach and education materials, such as brochures, magnets, posters, and coloring books for general public information about storm water quality control. This purchase of materials will be made the first year. Since the NPDES Storm Water Program was established in 1991, a number of the Phase I permittees have developed a wide range of public education materials that are in the public domain, and available for use by Phase II permittees. Examples can be found in the Model Urban Runoff Program or by contacting Phase I permittees.

Task 1.A.2
Distribute educational materials to the public, schools, multi-cultural events and libraries, and through the City's utility bills. Perhaps as many as 10,000 flyers may be required.

Task 1.A.3
Distribute educational materials at point of sale of household, automotive and garden chemicals, at multi-cultural events, and other relevant venues. The goal is to cover all such events.

Task 1.A.4
Review needs and results, and conduct additional public education, based on
the community's response to the first three years of outreach. At the completion of each year's public education program, the City needs to review the results and set priorities for the next year's target audience for storm water quality control education. For example, if a neighborhood has been the focus of education related to crankcase oil dumping in storm drains, results can be measured by the number of occurrences of such dumping before and after the education effort.

B. Education of Specific Community Groups

The purpose of this task is to focus on certain business types that have a higher potential to generate pollutants in municipal runoff. The first of these are restaurants and automotive repair shops. But other businesses that may benefit from focused education include poultry processing facility, farm equipment repair, farm fertilizer and chemical distributors, commercial/residential landscape service providers, vehicle steam cleaning services, pool service companies, and pest control companies. This program element can include incentives and public recognition for good environmental citizenship by businesses.

Task 1.B.1
Prepare and distribute education materials to all restaurants and auto repair shops about Best Management Practices for their business. Since the NPDES Storm Water Program was established in 1991, a number of the Phase I permittees have developed public education materials to focus on the high risk behaviors of certain businesses. Many of these public education materials are in the public domain, and available for use by the Phase II permittees. Examples can be found in the Model Urban Runoff Program, or by contacting the Phase I permittees. Santa Clara Valley Water District and the Fresno Metropolitan Flood Management District are leaders in this area.

The City should also consider developing incentive programs or public recognition programs for good environmental citizenship by businesses. Such programs may incorporate aspects of solid waste management, hazardous waste management or water conservation that relate to other City programs and objectives.

Task 1.B.2
Follow-up education with restaurants and auto repair shops.

Task 1.B.3
Educate additional targeted business groups, with the highest potential for storm water polluting actions. Depending on the results in the first three years of public education for targeted businesses, and new information gathered during the early years of the SWMP, the City should adapt their management plan for educating certain businesses. For example, if good results are

achieved with restaurants and vehicle repair shops, then public education for business could be shifted to the next highest priority business sector.

2. PUBLIC PARTICIPATION AND INVOLVEMENT

City of Livingston Storm Water Management Program

Minimum Control Measures #2: Public Participtionand Involvement				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 2.A.1 Purchase Storm Drain Markers/Stencils	Acquire storm drain markers in English and Spanish.	Jul-07	Public Works/Staff	Purchase 300 bilingual storm drain markers.
Task 2.A.2 Recruit Volunteers to Identify Storm Drains	Contact service clubs and community groups to participate. Develop schedule.	Jul-07	Public Works/Staff	Log contacts with community groups.
Task 2.A.3 Mark/Stencil One-Third of Storm Drains	The location and number of storm drain inlets marked will be documented.	Dec-07	Public Works/Staff	Identify on map the storm drains marked.
Task 2.A.4 Mark/Stencil One-Third of Storm Drains	The location and number of storm drain inlets marked will be documented.	Apr-08	Public Works/Staff	Identify on map the storm drains marked.
Task 2.A.5 Mark/Stencil One-Third of Storm Drains	The location and number of storm drain inlets marked will be documented.	Jul-08	Public Works/Staff	Identify on map the storm drains marked.
Task 2.A.6 Maintain Marking Program	The location and number of storm drain inlets re-marked will be documented.	Jul-09	Public Works/Director	Update on map the storm drains re-marked.
Task 2.A.7 Annual Community Clean-Up Day	Contact service clubs and community groups to participate. Develop schedule.	Oct-07	Public Works/Director	Track the volume of material collected.
Task 2.B.1 Public Workshop on Storm Drains	Provide updates on storm water at City Council and Planning Commission meetings.	Dec-07	Public Works/Director	Present storm water update quarterly.
Task 2.B.2 Update Storm Water Ordinance	Review, revise and document proposed ordinance changes annually to maintain. enforcement authority.	Jul-06	Engineering/City Engineer	Document annual review.
Task 2.B.3 City Council Adopt	Annually as needed.	Dec-07	Engineering/City Engineer	Document

Ordinance Update				ordinance updates.
Task 2.B.4 Update Businesses on Revised Ordinance	Contact all businesses before ordinance revisions are approved by City Council.	Dec-07	Public Works/Director	Phone contact each business.

The objectives of the Public Participation and Involvement Element are:

- To educate the public about the relationship between community activities and runoff pollution,
- To educate about specific pollutants and what citizens can do about them, and
- To foster participation in community-based projects and volunteer activities regarding pollution prevention.

The purpose of these activities is to support community participation in preventing and eliminating sources of pollution in urban runoff. The second purpose is to provide opportunities for the community to prioritize the types of activities that should be included in the Storm Water Management Program and any implementing ordinances, as adopted by the City Council. These two processes provide a key connection between the behaviors of the community and most cost effective means of preventing pollution.

A. Storm Drain Marking and Community Cleanup Days

Task 2.A.1
Purchase storm drain stencils or placards, depending on durability and the ability of volunteers to mark storm drains. Begin organizing volunteers. Since 1991, vendors have developed and Phase I permittees have tested the effectiveness of storm drain marking devices. The City will need to evaluate marking devices best suited for their storm drain system, and the work force available to install them. For example, Eagle Scouts may want to participate in gluing placards at storm drains.

Task 2.A.2
Begin organizing volunteers to stencil storm drains and do community cleanups.
The City has some experience in working with volunteers for other community efforts. For example, Eagle Scouts have planted trees. Other options include environmental organizations and after school sports fundraising organizations.

Task 2.A.3
Mark one-third of the City's storm drains or install marking tiles using volunteers whenever possible. Use City crews or alternative work programs when volunteers not available or appropriate. Based on past experience, painted storm drain stencils have a useful life of
about 4-5 years. Replacement of storm drain marking devices, whether painted or glued placards or tiles, will require a replacement program.

Task 2.A.4
Mark the next third of the City's storm drains, as in Task 2.A.3.

Task 2.A.5
Mark the final third of the City's storm drains, as in Task 2.A.3.

Task 2.A.6
Maintain marking program.

Task 2.A.7
Continue the annual community cleanup day with volunteers. This cleanup day can be coordinated annually with the County's household hazardous waste disposal schedule.

B. Legislative Action

Task 2.B.1
Conduct a public workshop on the proposed Storm Water Management Program, to educate the community on upcoming activities, and seek their input on the most appropriate approach.

Task 2.B.2
Prepare a draft Storm Water Quality ordinance or update an existing ordinance. The Storm Water Quality ordinance needs to address allowable non-storm water discharges to the storm drain system, a prohibition on the discharge of pollutants to the storm drainage system, and a tiered enforcement protocol and due process for violations. The ordinance may include provisions to recover the cost of enforcement actions. The ordinance may include the authority for incentive programs or public recognition of businesses that display good environmental citizenship.

Task 2.B.3
City Council adoption of Storm Water Quality ordinance. The City Council should take legislative action to enact or update the Storm Water Quality ordinance, in order to provide the authority for City staff to undertake certain actions required in the SWMP, and by the SWRCB Small MS4 General Permit.

Task 2.B.4
Educate businesses and all new developments about the new Storm Water Ordinance. City staff should develop press releases, attend business organization meetings, and create handouts, newsletters or other materials to provide business and the development community with the information they need on their role in preventing storm water pollution. Again, examples are available from Phase I permittees on how to undertake this kind of business education. The public information should inform businesses about any incentives or public recognition programs for good environmental citizenship.

3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

City of Livingston Storm Water Management Program

Minimum Control Measures #3: Illicit Discharge Detection and Elimination				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 3.1 Develop Program Outline for Detection/Elimination	Coordinate with all City departments to document potential sources of discharge.	Jul-06	Public Works/Director	Review program with all City managers quarterly.
Task 3.2 Develop Map of System for Tracking Water Quality	Prepare map and update annually to include all new development.	Sep-06	Public Works/Director	Review updated map with all City managers quarterly.
Task 3.3 Coordinate with Industry for Permitting	Meet with all industries and review permit requirements.	Jul-05	Public Works/Director	Annually meet with Foster Farms and Fresenius to discuss.
Task 3.4 Conduct Pilot Surveillance of Suspect Areas	Schedule staff to monitor specific sites during high rainfall events.	Jul-07	Public Works/Director	Monitor 3 priority locations annually.
Task 3.5 Eliminate Discharges by Property Owners	Advertise local drop off locations for used motor oil and other contaminants.	Jul-07	Public Works/Director	Track volume of materials collected at drop locations.
Task 3.6				

Annual Survey for Illicit Discharges	Review map and survey annually to include all new development.	Sep-07	Public Works/Director	Conduct as survey using updated map in October each year.
Task 3.7 Eliminate Illicit Discharges Found in Annual Survey	Implement BMP for discharge source or appropriate enforcement per ordinance.	Oct-07	Public Works/Director	Include number to RWQCB in report.

The objectives of the Illicit Discharge Detection and Elimination Element are:

- To control illicit discharges or illegal connections to storm drains by methodical field surveys and investigations of the storm drain system,

- To prevent improper disposal of wastes in a program that combines public education, alternative disposal options, incentives, and enforcement as needed, and

- To contain and clean up accidental spills with proper methods.

The purpose of this section is to provide a program under which uncontrolled sources of pollution directly discharged to storm drains are eliminated. The work plan for the Illicit Discharge Detection and Elimination Element will establish permissible discharges to storm drains, establish enforcement procedures for violations of the discharge standards, conduct field investigations and provide a complaint/spill response program. Some of these tasks overlap with the Public Involvement and Participation Element previously described.

Illicit discharges can include sewer lines improperly connected to storm drains, or improper dumping of crankcase oil, household chemicals, illegal drug lab chemicals or other deleterious materials into storm drains. It can even include the discharge of chlorinated swimming pool water into a storm drain. This part of the program is the most detection and enforcement oriented part of the SWMP.

The City will need to conduct an assessment of the extent and nature of illicit discharges that are occurring in their City. Then the detection and elimination program can be prioritized towards the most probable source of illicit discharges.

The City has only a few businesses that may be subject to the SWRCB Industrial General Storm Water Permit. The potential for pollutants from these businesses is considered low, and so this work plan does not include a requirement to monitor these industries' compliance with the SWRCB industrial permit.

Task 3.1

Develop the outline of Illicit Discharge Detection and Elimination Program. The City should be scheduled to adopt this Program by the third year. This task should include the work plan for periodic inspection of the storm drain system, and the plan of action for responding to any illicit discharges identified. Illicit discharges may include fixed pipeline connections from non-storm water sources, and illegal dumping into the City's storm drain system.

A two-part approach is needed for each of these possible pollution sources. Illicit discharges are discovered by periodic inspection of pipelines and by responding to complaints of odors or foul water in storm drains. Illegal dumping detection may require a hotline system for citizen reporting of observed dumping, and education of City employees and the public to report illegal dumping. The work plan needs to set priorities among the activities, and include an annual assessment step to adapt the management of the Illicit Discharge Detection and Elimination Program to the highest priorities.

Task 3.2

Develop a map of the City’s storm drain system, showing areas to be targeted for illicit discharge surveillance. The map should be the basis for geographically tracking storm water quality data as monitoring data accumulates, in order to address site-specific pollution sources. It is intended this mapping be developed during years two and three. The permittee has maps of the City's storm drain system, included in the 2006 Storm Drainage Master Plan.

Storm Water Management Program for Livingston

The objective of this task is to utilize the City's computer based GIS system that is a management tool for storm water quality as well as other storm water system functions. By the end of the 5-year permit period, the ideal mapping system would include maps that can track and report on storm water management activities, storm water quality data, and enforcement actions, as well as system hydraulics and maintenance management. Funding will determine how far the City is able to move towards this ideal mapping system. For storm water quality purposes, mapping of storm water quality data and enforcement actions should be given higher priority.

Task 3.3
Use the Municipal Code requirements to review the participation of local industries with the storm water industrial permit program, as applicable. The relationship with Industrial Permittees can be a forum for communicating about industry's role in preventing storm water pollution from their sites. Some industries may be subject to the SWRCB Phase I Industrial General Permit. The City should seek cooperative efforts with Industrial Permittees in accomplishing storm water quality control.

Task 3.4
Conduct pilot surveillance of the targeted areas for illicit discharges. Review and revise the scope and the approach to detecting illicit discharges, for the purpose of refining the multi-year program. The first year's work on illicit discharge detection and elimination should be focused on understanding the scope of the problem, if any, and the effort that will be required to address the entire City. A pilot program will inspect a section of town, with the highest likelihood of illicit discharges. The pilot program will test various detection methods, such as TV inspection, smoke testing, or pipeline sediment testing to assess costs, equipment needs and effectiveness in detecting illicit discharges. The results of the pilot test should be used to refine a multi-year program to address illicit discharges City wide on a periodic basis.

Task 3.5
Eliminate illicit discharges by cooperation of property owners whenever possible, or by City action or enforcement action if necessary. Inspections will be ongoing, being performed as a part of the City's service inspections. The City needs to develop a tiered procedure for eliminating illicit discharges and illegal dumping. The tiers may include education and incentives, voluntary compliance, mandatory compliance with a violation citation, and legal action, as each case warrants. Staff responsibilities should be established for each tier of enforcement. Protocols to involve the RWQCB should be included. Whenever an illicit discharge or illegal dumping situation is identified, the City needs to take action with the responsible parties to eliminate the pollution source.

Task 3.6
Conduct annual survey of targeted areas of the City for illicit discharges. The performance measure should be to survey the entire City on a 5-year rotation.

Task 3.7
Eliminate illicit discharges as they are found. This task will also include training of staff and provide for community education.

4. CONSTRUCTION SITE RUNOFF CONTROL, OVER 1 ACRE

City of Livingston Storm Water Management Program

Minimum Control Measures #4: Construction Site Runoff Control, Over 1 Acre				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 4.1 Educate Developers and Contractors on BMPs	Formally notify of City requirements for storm water runoff control measures.	Jul-05	Engineering/Inspector	Log contacts with developers and contractors.
Task 4.2				

Require SWPPPs for Construction Activities	Revise storm water ordinance to require SWPPPs for all construction.	Jul-05	Engineering/City Engineer	Ordinance in place for enforcement authority.
Task 4.3 Implement Storm Water Enforcement Provisions	Inspect sites once per storm season and re-inspect if violations found.	Jul-05	Public Works/Director	Number of violations per year.
Task 4.4 Grading Ordinance for Sediment Control	Develop and adopt ordinance.	Jul-06	Engineering/City Engineer	Ordinance in place for enforcement authority.
Task 4.5 Train Inspectors on SWPPPs	Provide BMP training every six months to construction personnel. Document the training subject matter and attendees.	Jul-05	Engineering/City Engineer	Training conducted in January and July.

The objective of the Construction Site Runoff Control Element is:

- To develop and implement a control program to reduce the potential for the discharge of pollutants into urban runoff from construction sites over 1 acre in size.

In March 2003, the Federal regulations required construction sites over 1 acre to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). Construction of over 5 acres has been subject to the regulations since 1991. A SWPPP describes the Best Management Practices that will be used during construction to reduce the sources of potential pollution, control sediments and educate construction workers. Under the General Storm Water Permit for Small MS4s, City participating in the General Permit will be delegated the regulatory authority and responsibility to require SWPPPs and inspect their implementation at construction sites. The City may consider using the existing resources such as the State Storm Water Handbook for Construction as guidance for Best Management Practices.

Task 4.1

Educate all local developers, construction firms and building department staff about the new requirements for Best Management Practices during construction. Developers and construction firms in the San Joaquin Valley have already been working with the storm water pollution program in Phase I cities and for any project over 5 acres. Building departments in Phase I cities should be able to assist the permittee in developing their own program, design standards and plan review procedures to incorporate storm water pollution prevention measures. Prepare handouts, design standards and guidance documents specific to the City. Conduct workshops in association with other communities on a quarterly basis. This would help to reduce overhead costs and facilitate the sharing of knowledge. Develop and distribute a newsletter informing the development community of the new requirements and BMP's. Require SWPP brochures with sale of houses and businesses.

Task 4.2

Require Storm Water Pollution Prevention Plans, (SWPPPs) in accordance with the SWRCB General Permit for Construction Activities, after March 10, 2003, for all construction over 1 acre, for both public and private projects. The City will review all SWPPP's. The City will also develop inspection procedures and checklist for inspections and procedures to identify priority sites for inspection and enforcement. Establish a tracking system for inspections and develop a reporting system for submittal of public information and development procedures for responding to information.

Each project over 1 acre will now be required to include storm water pollution prevention measures in the design and construction of the project. Then the owner or developer is required to prepare a Storm Water Pollution Prevention Plan (SWPPP) and to submit a Notice of Intent (NOI) and fee to the RWQCB. The RWQCB sends the developer back a notice

with the project's WDID number. In order to obtain a building permit, the developer will also have to provide the City with a copy of the project's NOI and SWPPP. The City reviews the SWPPP and the project plans to determine that the construction and postconstruction BMPs are appropriate for controlling the potential pollutant sources from the site. This review is part of the regular plan review and building permit issuance.

Once the project is permitted, the building inspectors observe the implementation of the BMPs to assure that they are effective. This can include observing where concrete and stucco washout is occurring, the containment of construction chemicals, the control of dirt being tracked off-site, the installation of on-site pollution prevention structures such as oil-water separators, etc. When the project is complete, the developer sends the RWQCB a Notice of Termination.

Task 4.3
Implement Storm Water ordinance enforcement provisions to deal with problem sites. The task goal is to establish a system for enforcement of storm water violations. Site inspections would include all construction sites. All effort will be made to perform inspections prior to and after rain events and during the winter months. Priority sites will require more frequent inspection, based upon job site conditions.

The adoption or upgrading of a storm water ordinance will provide a tiered enforcement protocol to deal with any problems in storm water control at construction sites. The Building Department, the storm water team and perhaps the City Attorney's office will make a team to address such problems.

Task 4.4
Revise as necessary the City's grading ordinance to incorporate sediment control measures for storm water quality protection. The requirements of job site SWPPP's and BMPs shall be complied with. Establish a storm water hotline for the public and develop procedures for receiving and responding to complaints. The ordinance will include enforcement provisions including fines and the ability to stop work on construction if significant problems are identified and not corrected by the developer. The City's grading ordinance may be to be revised to coordinate with the storm water pollution prevention measures called for in this Storm Water Management Program.

Task 4.5
Continue training for building inspectors and plan review staff on SWPPP requirements and best management practices. After the initial phases of the Work Plan, the Building Department may need continuing education in new materials and methods of stormwater pollution prevention, that are relevant to new construction. The products and methods used in stormwater pollution prevention are rapidly evolving.

5. POST CONSTRUCTION BMPs

City of Livingston Storm Water Management Program

Minimum Control Measures #5: Post Construction BMPs				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 5.1 Educate Contractors on Post Construction BMPs	Include post construction BMP training in bi-annual construction training.	Jul-05	Engineering/Inspector	Training conducted in July.
Task 5.2 Develop Post Construction BMP Agreements	Include storm water program in new development agreements.	Jan-06	Engineering/City Engineer	Requirements in place for all agreements.
Task 5.3 Require Post Construction BMP on Developments	Include provisions for funding of long term maintenance activities.	Jan-06	Engineering/City Engineer	Requirements in place for all

				agreements.
Task 5.4 Train Staff Annually on BMPs and Inspection	Conduct training session annually in the fall before wet season.	Sep-05	Engineering/City Engineer	Training conducted annually in July.
Task 5.5 Implement Storm Water Enforcement Provisions	Inspect sites once per storm season and re-inspect if violations found.	Sep-05	Public Works/Director	Number of violations per year.
Task 5.6 Include BMPs in City Standard Specifications	Modify standard specifications for construction projects.	Sep-05	Engineering/City Engineer	Specifications put in place.

The objective of the Post Construction Best Management Practices (BMP) Element is:

- To reduce the potential for discharge of pollutants from new development and redevelopment areas, using a strategy that combines reducing and eliminating sources of pollutants, managing site runoff volumes and flow rates such that they are similar to pre-construction levels, and treating runoff as appropriate.

Existing development which generates pollution will be addressed by Public Outreach and Education, and if warranted by a serious condition, by the Illicit Discharge Elimination element of the SWMP. The City may use the existing Storm Water Handbooks or may consider Post-Construction BMPs guidance documents developed by Phase I Cities.

Task 5.1
Educate local developers, engineering firms and building department staff about post-construction BMP requirements. Prepare handouts and guidance documents. Conduct two workshops. Training will continue as required in subsequent years.

Task 5.2
Develop a model Long-term Maintenance and Monitoring Agreement for Post Construction BMPs, that will assure that BMPs are being operated and maintained on private property, and to cover costs of annual inspection. All staff shall receive training. Phase I cities have found the need to assure long-term maintenance and measurable effectiveness of post-construction BMPs by entering into an agreement with the developer. Not every project will require an agreement, just those with a high potential for pollution and complex post-construction BMPs, such as oil-water separators at gas stations. Examples of such Agreements are available from Phase I cities. Enter into and implement an Agreement on appropriate projects.

Task 5.3
Require appropriate post-construction BMPs on new development. Each site shall be reviewed for application of appropriate BMPs. Include post-construction BMPs as part of the plan review and building permit process.

Task 5.4
Training will continue on a yearly basis updating staff to latest BMPs and storm water inspection processes.

Task 5.5
Implement Storm Water ordinance enforcement provisions to deal with problem sites, where post-construction BMPS are not being utilized or maintained.

Task 5.6
Include SWPPP BMP needs in regular update of City standard specifications. Whenever the City updates its design standards, post-construction BMPs should be included.

6. MUNICIPAL ACTIVITIES

City of Livingston Storm Water Management Program

Minimum Control Measures #6: Municipal Activities				
BMP	**Measurable Goal**	**Timeline**	**Lead Department/Contact**	**Assessment**
Task 6.1 Develop Training Program for Municipal Activities	Provide BMP training every six months to City personnel. Document the training subject matter and attendees.	Jul-07	Public Works/Director	Training conducted in January and July.
Task 6.2 Inspect and Assess Municipal Activities	Survey all City departments and facilities for activities that may contribute to storm water pollution.	Jul-07	Public Works/Director	Survey all City managers annually for potential.
Task 6.3 Obtain or Update General Permit for City	Obtain General Permit.	Jul-04	Public Works/Director	Permit in place.
Task 6.4 Participate in Regional Regulatory Activities	Attend regional storm water training as available.	Jul-09	Public Works/Director	Attend 2 training classes annually.
Task 6.5 Conduct BMP Training for City Construction Projects	Conduct training session annually in the fall before the wet season.	Oct-07	Public Works/Director	Conduct annual training in July.
Task 6.6 Implement BMPs for Municipal Operations	Implement storm drain system maintenance schedule and document all activities.	Oct-07	Public Works/Staff	Program in place.
Task 6.7 Update SOPs for Spills into Storm Drains	Annually review and revise SOPs to include new regulatory requirements.	Sep-05	Public Works/Director	Include lessons learned from enforcement actions.
Task 6.8 Conduct Followup Training for City Staff	Provide annual training to City staff of changes to SOPs.	Sep-06	Public Works/Director	Conduct annual training in July.
Task 6.9 Assess Street Sweeping Effectiveness	Document sweeping frequency and miles swept.	Jul-07	Public Works/Staff	Benchmark against other cities in the Central Valley.
Task 6.10 Evaluate New Street Sweeping Methods	Evaluate frequency of street sweeping versus quantity of debris removed from storm drain inlets.	Jul-07	Public Works/Staff	Track volume of debris removed versus miles swept.
Task 6.11				

Review and Revise BMPs for Municipal Operations	Annually review and modify BMPs as necessary.	Jul-07	Public Works/Director	Include feedback from contractors, developers and staff.
Task 6.12 Conduct Pilot Testing for Metals in Storm Basins	Sample and test runoff in storm basins at first wet season rain event.	Nov-07	Public Works/Director	Test 4 basins per year.

The objective for the Municipal Activities Element is:

- To identify, develop and implement Best Management Practices and good housekeeping procedures to address urban runoff pollution associated with municipal operations.

The City provides water, sewer, storm drain, streets, parks and recreation services. The City is also the owner of a number of public works construction projects that have potential to generate pollutants and sediment in runoff. The program is a progression of activities that educate City staff and then take positive action to eliminate the potential sources of storm water pollution from municipal activities.

Task 6.1
Develop a training program regarding BMPs for municipal activities, such as good housekeeping, landscape maintenance chemical use, containment of industrial chemicals and fuels, sediment and erosion control.

Task 6.2
Conduct an inspection and assessment of all municipal activities, such as the Corporation Yard, pipeline repair procedures, street pavement maintenance activities, parks fertilizer and pesticide applications, etc. prioritize the BMPs to be implemented within City operations. The State BMP Handbooks and the Model Urban Runoff Program provide guidance on how a City should conduct an assessment of their physical plant for the potential to release pollutants to storm drainage. Potential sources such as material storage, vehicle maintenance, and field activities are included.

Task 6.3
Obtain or update General Permit participation for any industrial activities conducted by the City. Certain municipal activities such as the wastewater treatment plant, and fleet maintenance are required to participate in the SWRCB General Storm water Permit for Industrial Activities, unless certain very limited exemptions exist. The City should review its compliance in the industrial permit requirements.

Task 6.4
Participate in related regional regulatory activities that involve the water quality of the Merced and San Joaquin Rivers, to coordinate the City's SWMP with regional, multi-pollutant remediation measures. Participation can include the Storm Water Task Force, any TMDL committees, and the river groups that have a relationship to either the sources of pollution or the health of the receiving streams.

Task 6.5
Conduct BMP training for all field supervisors, construction inspectors and design engineers for the City's own construction projects. Training efforts might be combined with sessions from other municipalities including Atwater and Merced.

Task 6.6
Begin implementation of BMPs for municipal operations and capital improvement projects. Develop and implement Facility Pollution Prevention Plans at all applicable municipal facilities.

Task 6.7
Develop or update the Standard Operating Procedure (SOP) for responding to chemical or sewer spills onto City streets and into storm drains. The SOP should include first responder risk assessment methods, notification procedures, public access control, collaboration with public safety officials, cleanup protocols, incident closure, and outside resources such as hazardous

materials cleanup contractors or mutual aid agreements. The type of spills to be covered should include raw sewage, hazardous materials, unknown materials and explosive materials.

Task 6.8
Conduct follow-up training for City staff, on an as-needed basis for specific topics related to municipal activities.

Task 6.9
Assess street sweeping effectiveness. Conduct targeted studies to optimize street sweeping effectiveness with existing equipment, reviewing the frequency of sweeping or speed of sweepers for residential, commercial and industrial areas.

Task 6.10
Research street sweeping options, to improve sweeping effectiveness. Evaluate available research in other cities regarding street sweeping methods and equipment, for possible improvements in the City.

Task 6.11
Review and revise BMPs for municipal activities with operational and construction staff input.

Task 6.12
Conduct pilot testing for metals in the oldest detention and retention basins, to determine whether metals accumulation is occurring, and to assess the need for routine evaluations of storm basins. Collect data on the construction date, maintenance activities and land use in the tributary area of storm basins, to characterize the potential for heavy metals sources. Test the soil in each basin using standard EPA methods to determine the concentration of heavy metals at various levels of soil, and at the inlet and outlet of each basin. Compare the metals concentrations found to the standards for related metals limits, such as toxic pits and cumulative metals concentrations allowable in biosolids land application. Analyze the probable accumulation rate of metals in storm basins in the City to begin to assess whether Best Management Practices such as soil stripping or metals source controls are needed to prevent excess metals accumulation.

Section 4 - 5 Year Work Plan Budget

Table 4.1 estimates costs for the activities proposed to be included in the SWMP. Table 4.2 projects the 5-year program activities cost. These activities are in addition to current City services that have a beneficial impact on storm water quality, such as system maintenance, street sweeping, and solid waste disposal. The actual costs of each task will depend on the amount of volunteer contributions, and the extent of a particular activity. This estimate provides costs per activity. Not all activities will occur on one year. Some activities will occur every year. The staff time is for each year that the activity occurs.

Table 4.1
Estimate of Costs and Staff Time
Additional Storm Water Activities

Control Measure	Probable Annual Material Cost	Annual Staff Time
Public Education/Outreach *(Distribute public education materials)*	$5,000	80 hours
Public Participation *(Storm drain stencils or markers)*	$3,500	50 hours
Storm Water Ordinance *(Review and update as required)*	$0	40 hours
Illicit Discharge Detection/Elimination *(Conduct investigations and correct)*	$5,500	100 hours
Construction Site Runoff Control *(Educate developers/contractors)*	$1,500	40 hours
Post- Construction Runoff Control *(Educate developers/engineers)*	$1,500	40 hours
Pollution Prevention *(Provide staff BMP training, assess general maintenance practices, implement BMPs)*	$2,500	80 hours
Permitting/Reporting Requirements *(Annual report to RWQCB and fee to SWRCB)*	$5,000 to $10,000 (includes permit fees)	40 hours
Total Annual Program Costs	$24,500 to $29,500	
Population (12,614)		
Estimated Program Cost per Resident	$1.94 to $2.34/year	

Table 4.2
Projected 5-Year Costs
Based on Planned Activities

Control Measure (Task)	**Year 1** (2004)	**Year 2** (2005)	**Year 3** (2006)	**Year 4** (2007)	**Year 5** (2008)
Public Education/Outreach			$5,000	$5,000	$5,000
Public Participation			$3,500	$3,500	$3,500
Storm Water Ordinance	$0	$0	$0	$0	$0
Illicit Discharge Detection/Elimination		$5,500	$5,500	$5,500	$5,500
Construction Site Runoff Control	$1,500	$1,500	$1,500	$1,500	$1,500
Post- Construction Runoff Control	$1,500	$1,500	$1,500	$1,500	$1,500
Pollution Prevention	$2,500	$2,500	$2,500	$2,500	$2,500
Permitting/Reporting Requirements	$10,000	$10,000	$10,000	$10,000	$10,000
Total Program Cost	**$15,500**	**$21,000**	**$29,500**	**$29,500**	**$29,500**

Section 5 - Performance Measurement and Reporting

The purpose of this Section is to establish the methods by which the permittee will measure and report on their efforts to implement the Storm Water Management Program. The City performance under the General Permit will be measured in two ways:

1. Storm Water Management Program activities completed as scheduled.

2. Tabulation of potential pollutants removed from the City's environment each year.

These include measures such as the number of pounds of street sweepings collected each year, or the number of illicit discharges discovered and eliminated. The performance measures are organized on the suggested worksheet shown in Figure 5.1, for routine use by field supervisors during the year.

In the event the City is not able to comply with the General Permit, or with the planned activities of their Storm Water Management Program, the City shall notify the Central Valley Regional Water Quality Control Board (CVRWQCB) within 30 days. If an emergency condition exists that endangers human health or the environment, the City shall notify the CVRWQCB within 24 hours of becoming aware of the circumstances, and follow-up with a written report within 5 days.

Figure 5.1

Storm Water Management Program
Monthly Tabulation of Storm Water Quality Activities

City of Livingston **Month/Year_____**

Activity	Amount	Notes
Garden Refuse/Bulk Items Collection (tons)		

Street Sweeping, (tons)		
Illicit Discharges or Illegal Connections Found/Eliminated		
Storm Water Drains and Inlets Marked		
Corporation Yard Cleanup		
Catch Basins and Storm Drains Cleaned		
Storm Water Detention Basin Maintenance		
Public Education Activities		

By September 15th of each year, the City must submit an annual report to the Central Valley Regional Water Quality Control Board. The report shall include:

1. The status of compliance with permit conditions.
2. An assessment of the appropriateness and effectiveness of the identified BMPs.
3. Status of identified measurable goals,
4. Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
5. A summary of the storm water activities the City plans to undertake during the next reporting cycle;
6. Any proposed changes to the SWMP along with a justification of why the changes are necessary, and
7. A change in the person or persons implementing and coordinating the SWMP.

Below is an annotated outline of the annual report to be submitted by the City. The City will retain the records corresponding to the SWMP implementation for at least 5 years, or during the duration of the General Permit. Such records are public documents, accessible to the public in accordance with the Public Information Act. The final draft report form to be submitted to the CVRWQCB is included as Appendix A.

Storm Water Management Program
Outline of Annual Report to CVRWQCB

I. Executive Summary

(This section should summarize the main challenges encountered and accomplishments achieved by the City during the year.)

II. Control Measures Implemented

a. Public Involvement and Outreach
b. Public Participation
c. Illicit Discharge/Illegal Connection Elimination
d. Construction BMPs
e. Post-Construction BMPs.
f. Municipal Operations.

(This section should record the Tasks completed for each control measure. This discussion may include an assessment of the effectiveness of the various Tasks. Measurements of actual potential pollutants removed from the City's environment, such as tons of street sweepings or bulky items, should be tabulated. The section should also include a report of any enforcement actions taken. If the year's tasks included any monitoring, the monitoring data should be attached to the annual report.)

III. Funding Status

(This section should present the current and next year's budget for storm water quality activities for the City. This section may also include a discussion of the cost effectiveness of any of the control measure tasks.)

IV. Next Year's Work Plan

(This section should present the SWMP tasks to be accomplished during the coming year. This discussion can include the justification for any adaptive management changes in the planned work, based on the effectiveness or lack thereof of a previous year's task.)

Appendix A - RWQCB Annual MS4 Report Form

Appendix B - 2006 Storm Water Drainage Master Plan