City of Visalia



Storm Water Management Program

November 2005

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1.0 INTRODUCTION

This document is the City of Visalia's Storm Water Management Program (SWMP). It is intended to outline and direct the City's storm water related priorities and activities for the years 2003 through June 2008. It is being submitted as part of the City's Notice of Intent to comply with the terms of the General Permit for storm water discharges from small municipal separate storm sewer systems (MS4s). This SWMP will be revised as needed throughout the permit term.

The City of Visalia encompasses approximately 20,000 acres in California's San Joaquin Valley, and has a population of 95,812 as of January 2002. The program responsibilities are contiguous with the city limits as of January 2004. The City has developed from agricultural land on an alluvial fan with poorly-defined drainage. Rainfall for the area averages approximately ten inches per year. The wet season generally includes the months of November through April, though rainfall can occur year-round. January has the highest average monthly rainfall with nearly two inches. In addition, Visalia and the surrounding region frequently experience extended periods of drought, especially during the months of June through October.

The City operates and maintains a vast municipal storm drainage system that consists of drainage channels, 23 detention and retention basins, 33 pump stations and 250 miles of pipe. Historically, runoff was disposed of by directing it to the natural creeks, rivers and irrigation ditches that flow through the city including the St. John's River, Mill Creek, Packwood Creek, Modoc Ditch, Evans Ditch and Persian Ditch. To mitigate the increased runoff due to urbanization, the City has invested thousands of dollars in the purchase of land and the construction of permanent retention basins.

The City of Visalia's storm drainage management plan includes mapping, land use, and system inventory study of the area to the 2020 Urban Development Boundary (35,000 acres). Holding ponds at pump stations provide an opportunity for settlement, with the ultimate discharge of large holding ponds on the west side of town. Where retention basins are not feasible, the City will require developers to build temporary drainage basins to detain storm water runoff for later disposal. Many of these retention basins incorporate water quality features for environmental restoration and preservation.

1.1 Regulatory Background

The 1972 amendments to the federal Clean Water Act (CWA) prohibited the discharge of pollutants from point sources to waters of the United States unless a permit issued under the NPDES permitting program authorized the discharge. The 1987 amendments to the CWA added Section 402(p), which defined certain storm water discharges as point sources. The amendments directed the U.S. Environmental Protection Agency (EPA) to adopt regulations establishing permitting requirements for municipal and industrial storm water discharges. The amendments also required storm water discharges from municipal separate storm sewer systems (known as MS4 systems) to obtain coverage under an NPDES permit if that system served a population greater than 100,000. This became known as Phase I of the storm water program.

In December 1999, the EPA promulgated the Storm Water Phase II Final Rule, which was intended to further protect the Nation's water resources from polluted storm water runoff. The Phase II program expands the Phase I program by requiring, through the use of NPDES permits, operators of small MS4s and operators of small construction sites to implement programs and practices to control polluted storm water runoff. A small MS4 is one that serves fewer than 100,000 residents.

In California, the federal NPDES permitting program is implemented by the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards) through the Porter-Cologne Act, a part of the California Water Code.

2.0 PROGRAM REQUIREMENTS

As a federally designated Phase II MS4, the City of Visalia is required to obtain coverage under an NPDES storm water permit. As part of the permit application to be submitted to the Regional Board, the City must develop a storm water management program (SWMP) that addresses six minimum control measures (MCMs). These minimum control measures are:

- Public education and outreach,
- Public involvement and participation,
- Illicit discharge detection and elimination,
- Construction site storm water runoff control,
- Post-construction storm water management, and
- Pollution prevention and good housekeeping.

Each of these MCMs, or program elements, are to be implemented by applying one or more Best Management Practice (BMP) designed to protect water quality, reduce the discharge of pollutants to the maximum extent practicable, and satisfy the requirements of the Clean Water Act.

SWMP will involve a range of city departments and contacts for each department are noted as below:

- James Ross, City of Visalia Wastewater Treatment Plant and key contact for the SWMP
- David Jacobs, City of Visalia Engineering Department
- Jim Funk, City of Visalia Capitol Improvement Projects (CIP)
- Mike Olmos, City of Visalia Planning Department
- Anne Magana, City of Visalia Water Conservation Department and Code Enforcement
- Dennis Lehman, City of Visalia Building Department
- Don Stone, City of Visalia Parks and Recreation Department
- Mervin Demmers, Tulare County Association of Governments
- Mike Whitlock, Tulare County Resource Management Agency

The following sections summarize the regulatory requirements of each of the six MCMs and outline the programs and BMPs that the City of Visalia will use to address each of these program elements. In addition, the person within the City organization responsible for overseeing the implementation of each BMP is identified.

2.1 Current Efforts

The City of Visalia currently utilizes many well-established programs that mitigate storm water pollution. Many of these programs were developed to improve the community.

As part of the Storm Water Management Program (SWMP), the City will continue these programs while increasing efforts in monitoring and reporting, as required.

2.1.1 Water Conservation Ordinance

Lawn and garden activities can result in contamination of storm water through pesticide, soil, and fertilizer runoff. The City of Visalia enacted a water conservation ordinance in 1984 to promote water conservation and curtail runoff from residential properties, thereby preventing these contaminants from entering the storm water system. The ordinance requires year-round water conservation measures, such as the use of a positive shutoff valve on all handheld water hoses used for the washing of vehicles, buildings, patios, etc. There are also restrictions on irrigation times and methods.

While the primary purpose of this ordinance is water conservation, it has the secondary effect of improving storm water quality by minimizing runoff. This program is widely publicized throughout the year through various media campaigns including TV, radio, bill inserts, give-a-ways and classroom presentations.

2.1.2 Household Hazardous Waste

Many products found in homes contain chemical ingredients that are potentially harmful to people and to the environment. Unless properly disposed of, the chemicals in these products have the potential to contaminate surface and groundwater. In order to facilitate proper disposal, the City of Visalia, in partnership with the County of Tulare, implemented the Household Hazardous Waste Program. The program is widely publicized throughout the community by radio and print ads and through handouts at various public events. As part of the program, used oil collection pans are offered to the general public without charge.

Cleaning products, motor oil, antifreeze, degreaser, paint, wood preservatives, batteries, and other toxic or hazardous products can be disposed of at the hazardous waste collection site free of charge. Each week, approximately 70 residents bring their household hazardous waste to the collection site.

2.1.3 Fall Drop Off Program

The use of compost and mulches can help retain water, prevent erosion and improve the soil for plant growth, which in turn can have a positive effect on water quality. To promote the use of mulches, and simultaneously discourage illegal dumping of yard waste, the City has established a Fall Drop Off Program, whereby homeowners can receive compost and mulch, without charge, in exchange for their yard waste. This program has been in place for several years and has been extremely successful, with several hundred tons of compost distributed annually.

2.1.4 Street Sweeping

Monthly street sweeping is practiced in the City of Visalia to remove sediment buildup and large debris from curb gutters. This practice has a significant impact on storm water quality.

2.1.5 Detention Basins

The Storm Drain Master Plan incorporates the use of localized storm drain basins in order to minimize flooding and allow particles and pollutants to settle. Whenever feasible, storm water retention basins are used. In addition, all industrial sites have individual storm drain basins to contain any localized spills and prevent contaminants from reaching receiving waters. This practice will continue to be utilized as the City develops.

2.1.6 Sewer System Maintenance

A schedule of regular maintenance of the sanitary sewer collection system is an effective way to avoid more expensive repairs due to system failure. Preventative maintenance through scheduled inspections and routine cleaning of the sewer system can identify and help eliminate many of the causes of Sanitary Sewer Overflows (SSOs). The City sanitary sewer collection system is cleaned and TV inspected on an ongoing basis to help eliminate SSOs.

Routine cleaning of the storm drain system reduces the amount of pollutants, trash, and debris both in the drain system and in receiving waters. Clogged drains and inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of stream habitats. As part of its established maintenance program, the City regularly cleans its storm catch basins and cross drains. Each storm pump wet well is cleaned yearly to remove accumulated pollutants.

2.1.7 Septic Systems

The City of Visalia has established an ordinance prohibiting the installation of new private sewerage disposal systems within city limits. In addition, whenever it is determined that an existing private sewerage disposal system is in need of major repairs, the dwelling or structure served must be connected to the public sewerage system within sixty (60) days.

3.0 PUBLIC EDUCATION AND OUTREACH

Regulatory Requirements:

You must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

The Public Education and Outreach element is the cornerstone of the City Visalia's Storm Water Management Program. Whether dealing with the general public, local industries, developers, or City officials and departments, the goal of the Public Education and Outreach element is to generate awareness of storm water pollution prevention by educating people about the storm drain system and its relationship to the health of local waterways. It is through education that behavior patterns are changed and active participation in water pollution prevention is established.

Storm water education starts with a well-thought-out and well-developed outreach plan. The outreach plan must identify goals and objectives, classify the target audience, identify the message to be conveyed, and explain how the message will be distributed to the audience.

Examples might include a campaign to educate citizens of the importance of proper septic system maintenance, the proper use and disposal of landscape and garden chemicals, the proper disposal of used motor oil and household hazardous wastes, or the need to protect and restore riparian vegetation. The public education program can be tailored to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

Outreach and education can be implemented in several ways. Common distribution mechanisms include direct mail, door-to-door distribution, telephone, targeted businesses, presentations, handouts at events, media outlets, and messages posted in public places. However, educational materials (posters, flyers, magnets, etc.) will not help prevent storm water pollution if the target audience does not receive and read them. Targeted groups and distribution methods will be evaluated annually throughout the permit term.

3.1 Interagency Agreement

The public education campaign is expected to be the cornerstone of all SWMPs in the surrounding region. Therefore, to increase the effectiveness of all media campaigns and to avoid duplication of effort, it is vital that the MS4s in the vicinity act in a coordinated manner.

The City will coordinate media and outreach efforts with other local agencies to enhance the effectiveness of the storm water program. The City will enter into an agreement or MOU with the Tulare County Association of Governments and other local cities regarding this coordinated effort.

The educational outreach effort is expected to be coordinated through the Tulare County Association of Governments (TCAG). Meetings to this end are already underway. TCAG, through the cities are currently:

- 3.1.1 Distributing bilingual Storm Water Pollution Prevention flyers. (See Appendix "B") "Protect your Water"
- 3.1.2 Implement and coordinate with Real Estate agencies, Developers and Chamber of Commerce to insert Household Hazardous Waste flyers into new home packets.
- 3.1.3 Working with local retailers for counter displays for general storm water flyers (for example, Wal-Mart, K-mart, and Auto Parts stores).

3.2 Illegal Dumping Control

One focus of the public education campaign will be the illegal dumping of household and commercial waste. This waste has a variety of impacts on water quality. Hazardous chemicals generated from household, commercial, and industrial sources can contaminate ground and surface water supplies, affecting drinking water and public health as well as aquatic habitat. Increased runoff due to blockage of streams, culverts and drainage basins can result in flooding and channel erosion. Open burning associated with some illegal sites can cause fires that threaten property, create severe erosion and cause sediment

loading in streams. Economically, property values decrease as a result of illegal dumping and affects the local tax base and the ability to maintain pollution prevention programs.

The illegal dumping of litter occurs primarily to avoid disposal fees or the time and effort required for proper disposal at landfills or recycling facilities. This dumping happens at abandoned industrial, commercial, or residential buildings, vacant lots, and poorly lit areas such as rural roads and railway lines. In Visalia, it is not abnormal to see residents disposing of yard debris in adjacent waterways as flows begin to rise.

Illegal dumping control as a management practice involves using public education to familiarize residents and businesses with the effects of illegal dumping on storm water quality. By locating and correcting illegal dumping practices through education and enforcement measures, the risks to public safety and water quality associated with illegal disposal actions can be prevented.

Trash and floating debris in waterways have become significant pollutants in Visalia. Besides contributing to visual pollution and detracting from the aesthetic qualities of the landscape, this debris increases sediment buildup in streams and can reduce dissolved oxygen levels resulting in the disruption of aquatic life cycles. In addition, it threatens property by restricting the water flow in flood channels.

- **3.2.1** As part of its public awareness campaign, the City will educate residents, particularly those adjacent to city waterways, of the importance of proper trash disposal.
- **3.2.2** Signage will be placed in areas easily accessible by the public that are frequently used as illegal dumpsites.
- **3.2.3** Storm water quality information will be incorporated into presentations, community events, outreach efforts and promotional give-aways.

3.3 Commercial Activities/Business Outreach

Industries and businesses can be a very influential component of the watershed. Many commercial activities have the potential to contribute significantly to storm water pollution; therefore, it is important to address commercial activities. In most cases, incentives need to be provided to encourage businesses to change their behavior. The City will establish a business outreach program that will help businesses reduce the amount of pollutants entering the drainage system. A prioritized list of businesses will be prepared, which may include auto body shops, restaurants, strip malls with fast food, and pool supply and maintenance companies. Business-specific materials will be prepared and distributed accordingly.

- **3.3.1** To further reduce grease discharge into the sanitary sewer system, informational material will be provided to restaurant operators to better explain the importance of proper grease trap maintenance.
- **3.3.2** Pamphlets, brochures, and flyers will be distributed to outline how to properly dispose of used motor oil and other automotive fluids.
- **3.3.3** To target home mechanics specifically, materials will be placed in automotive supply outlets or other easily accessible location

3.4 Element Evaluation, Public Education and Outreach

There are many methods of evaluating the effectiveness of the Public Education and Outreach element. The number of materials distributed, number of people reached, or the frequency of the message, for example, may be used to measure media campaigns. A reduction in sanitary sewer overflows may be an indication of the success of commercial outreach efforts.

The table on the following page summarizes the BMPs the City of Visalia will use to conduct its Public Education and Outreach program. Also included are the goals, milestone dates, and assessment methods for each BMP, as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the program and to gauge the program's effectiveness.

3.5 Program Summary, Public Education and Outreach

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
3.1.1	Form a partnership and coordinate media efforts through local agencies (TCAG, Protect your Water)	December-05	Adopt an MOU or adopt other agreement	Based on TCAG printing, City will distribute Bilingual general storm water flyers to 1,000 residents each year	James Ross
3.1.2	Implement and coordinate with Real Estate agencies, Developers and Chamber of Commerce to insert Household Hazardous Waste flyers into new home packets.	March - 06	Involve the Real Estate industry with public education of their new home buyers. (1) flyer for each new home sold	Newer developments with fewer issues due to education of it's residences.	James Ross
3.1.3	Working with local retailers for counter displays for general storm water flyers. (currently ongoing with Orchard Supply Hardware)	Ongoing	Record number of pamphlets released on an annual basis.	Reduction of automotive type pollutants in storm drains inspections.	James Ross
3.2.1	Distribute material on proper trash disposal	December-05	500 door hangers each year.	Reduced trash in waterways	James Ross
3.2.2	Signage placed in illegal dumping areas	July-05	10 areas with 5 new sites each year	50% reduction in trash disposal in selected areas	James Ross
3.2.3	Citizen Outreach: Presentations and community events	Ongoing	3 presentations or events per year	# of events or presentations w/ # of attendees & agendas on record for each event	Anne Magana

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
3.3.1	Restaurant guide on grease (Restaurants; approximately 175 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	\pm 175 Restaurants 50% (88) of restaurants by the 2nd year, and with the remainder. the following year (3 rd year)	SSO decrease w/ inspections conducted twice a yr.	James Ross
3.3.2	Business Outreach: Auto repair facility guide on fluid disposal (Automotive Repair; approx. 100 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	\pm 100 Repair services 25% (25) of outlets with 25% increase each year	Number of pamphlets distributed	James Ross
3.3.3	Display material in automotive supply outlets (Automotive Supply; approx. 25 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	\pm 25 Supply outlets 25% (6) of outlets in year 1 with a 25% increase each year	Number of pamphlets distributed	James Ross

4.0 PUBLIC INVOLVEMENT AND PARTICIPATION

Regulatory Requirements:

You must, at a minimum, comply with state, tribal, and local public notice requirements when implementing a public involvement/participation program.

It is desirable to involve the public in the development, implementation and review of the Storm Water Management Program. An active and involved community is crucial to the success of a Storm Water Management Program because it allows for:

- Broader public support. Citizens who participate in the development and decision-making process feel partially responsible for the program and are less likely to raise legal challenges and more likely to take an active role in program implementation;
- Shorter implementation schedules due to fewer obstacles in the form of public and legal challenges and increased sources in the form of citizen volunteers,
- A broader base of expertise and economic benefits since the community can be a valuable, and free, intellectual resource; and
- A conduit to other programs, as citizens involved in the storm water program process provides important cross-connections and relationships with other community and government programs.

4.1 Storm Drain Stenciling

Storm drain stenciling involves labeling storm drain inlets with placards or painted messages warning citizens not to dump pollutants into the drains. The stenciled messages are generally a simple phrase to remind passersby that the storm drains connect to local water bodies and that dumping pollutes those waters. Commonly stenciled messages include: "No Dumping. Drains to Water Source," "Drains to River," and "You Dump It, You Drink It. No Waste Here." Visalia's storm drains are not stenciled.

4.1.1 The City will work with public groups to stencil a subset of storm drains that will reach the maximum number of citizens, and that will target drains leading to water bodies where illegal dumping is identified as a source of pollution.

The City will evaluate the means by which the stenciling will occur; i.e. City staff or volunteer groups in cooperation with staff.

4.1.2 In new developments, the developer will stencil drain inlets as part of the project, which would serve as an education tool for the developers and their staff. The stenciling will be made a requirement in the Permit Approval process.

4.2 Hotline

Because regulators and authorities cannot monitor all water bodies at once, it is necessary to rely on the public to keep them informed of water polluters. Community hotlines provide a means for concerned citizens and agencies to contact the appropriate authority when they see water quality issues. A typical call might report a leaking automobile, concrete wash-out dumped on the street, paint in a creek, or debris in a drainage system or waterway.

All calls will be logged into a database. The general response to a hotline call would be a site visit. If a problem exists and the responsible party can be identified, they are informed of the problem, instructed as to how to resolve the immediate issue, and given alternative future disposal options. If the issue is not resolved by the responsible party (or the party cannot be identified), action is taken by the proper authority to remediate the situation and prevent future violations.

A hotline can serve as a link between the citizens and the municipality's government. It can be an avenue for citizens to feel more involved in their community. It also can be an inexpensive way to catch illegal polluters or to stop accidental spills that might otherwise go unnoticed.

4.2.1 A water quality hotline & database will be established. The details for publicizing the hotline will be developed at a future date. The details for the responsibility, data recording, and enforcement will be identified through the ordinance. (City Standard database)

4.3 Pet Waste/Bark Parks

The City of Visalia has several parks equipped with dog waste baggies for pick up and currently operates and maintains two parks designated for dogs. The City provides bags for owners to pick up after their dogs. These designated areas are fenced and allow owners to remove dog leashes, making these parks very popular. This type of environment encourages positive peer pressure and will provide a great venue allowing the City to target dog owners. These areas are also good public outreach locations, housing signage thanking participations for using the facility and explaining its effect on Storm water. Also cycling, the posting of pamphlets on other storm water issue, household waste and over watering maximizes the effectiveness of these locations.

4.3.1 The City will provide pamphlets at the parks regarding pet waste and storm water quality. Visual inspections of the parks will continue as a means to evaluate the effectiveness of the program.

4.4 Participation Booth at County Fair

The booth at the annual county fair will be coordinated with TCAG. The booth was first started in 2004. The purpose of the booth will be to educate the public regarding the local storm drain systems and the impacts of pollutants. The community's knowledge of storm water issues and the effectiveness of public education programs will be evaluated using a questionnaire.

4.4.1 Provide annually, a participation booth at the county fair with questionnaires used to evaluate and record the public's knowledge of storm water issues. Typical average fair attendance is approximately 80,000.

4.5 Element Evaluation, Public Involvement and Participation

There are many methods of evaluating the effectiveness of the Public Involvement and Participation element. Participation in community events such as the storm drain stenciling program, household hazardous waste collection program, and the fall green waste drop off could all be used to measure the effectiveness of the program.

The table on the following page summarizes the BMPs the City of Visalia will use to conduct the Public Involvement and Participation element of the program. Also included are the goals, milestone dates and assessment methods for each BMP as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the Program and to gauge the program's effectiveness.

4.6 **Program Summary, Public Involvement and Participation**

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
4.1.1	Storm drain Stencils or Markers	December-06	500 storm drains per year	Number of storm drains stenciled and number of groups participating	James Ross
4.1.2	New developments, the developer will stencil drain inlets as part of the project requirement in the Permit Approval process.	January-06	100% new developments in compliance	Report direct correlation between new developments and new storm drains stenciled.	James Ross
4.2.1	Establish water quality hotline	December-05	Establish Hotline	Hotline established w/ a database providing responsibility, data recording, and enforcement to log calls	James Ross
4.3.1	Bark Parks and other City Parks Post signage & pamphlets regarding effects of pet waste and appreciation.	Ongoing	Establish two dedicated areas within the community.	Number of bags used & monthly visual inspections. Cycle pamphlets quarterly	James Ross
4.4.1	Annual participation in booth @ County Fair (w/ storm water questionnaire – started in 2004)	December-05	500 questionnaires filled out each year	Number of questionnaires filled out each year and feedback regarding the public knowledge of storm water issues	James Ross

5.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

Regulatory Requirements:

You must develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at Sec. 122.26(b)(2)) into your small MS4.

- (ii) You must:
 - Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
 - To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, nonstorm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;
 - Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system; and
 - Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

You need to address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if you identify them as significant contributors of pollutants to your small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the United States).

An illicit discharge is defined as any discharge to the municipal separate storm sewer system that is not composed entirely of storm water, except for discharges allowed under an NPDES permit or waters used for firefighting operations. These non-storm water discharges can occur due to illegal connections to the storm drain system from both residential and commercial establishments. As a result of these illicit connections, contaminated wastewater enters into storm drains without receiving treatment from a wastewater treatment plant.

This illicit discharge detection and elimination program is designed to prevent contamination of ground and surface water by identifying and eliminating these illegal non-storm water discharges.

EPA recommends that the plan to detect and address illicit discharges include the following four components:

- Procedures for locating priority areas likely to have illicit discharges;
- Procedures for tracing the source of an illicit discharge;
- Procedures for removing the source of the discharge; and
- Procedures for program evaluation and assessment.

Illicit discharge education actions may include storm drain stenciling, programs to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

5.1 Storm Water Ordinance

An essential element of any SWMP is an ordinance granting the authority to inspect properties suspected of releasing contaminated discharges into storm drain systems. Guaranteed "right of entry" to private property is critical to allowing inspectors to identify and take corrective actions on individual sources of illicit discharges. Another important factor is the establishment of enforcement actions for those properties found to be in noncompliance or that refuse to allow access to their facilities. Among the enforcement actions that have been used in ordinances are cease and desist orders, suspension of water or sewer service, and criminal and civil penalties including charging the owner of the property for the cost of abatement. Methods for appeal are often included in these enforcement measures that provide owners with avenues for compliance with the ordinance.

The City does not currently have an ordinance to give it the authority to regulate illicit discharges, storm water discharges or enforce corrective actions.

5.1.1 The City will enact an ordinance to give it the legal authority to fully implement this SWMP including provisions for a tiered level of enforcement of this program.

5.2 Storm Water Master Plan

Maintaining an inventory of the basic storm water system structures and outfalls is a pivotal component of any storm water management program. The regular inspection and maintenance of these items ensures that the structures in the inventory are clean, serviceable and operating properly. Through inspection, illicit discharges can be detected, and the source eliminated. Inspection forms and databases will aid in the identifying, recording and updating of GIS maps, to better monitor existing and new discharges.

The City currently uses GIS to map its storm water collection system, inlets, and pump stations. This GIS data is updated on a regular basis as new developments are completed. However, not all of the outfall locations are currently identified. The addition of regulated inspections will help identify additional outfall locations. The City's Industrial area has been organized to have all large facilities discharging to their own privately owned detention basins. This forethought minimizes the effect the Industrial area has on the overall City storm water system.

- **5.2.1** A survey of the storm drain system will be made to identify and map outfalls. This information will be incorporated into the GIS database, and updated annually as a minimum.
- **5.2.2** An annual inspection of identified outfalls will be conducted during extended dry periods to identify non-storm water discharges and their source. (City standard database)

If a discharge results from an illicit connection to the system, the City will take appropriate actions to identify and eliminate the connection. After the illicit connection is eliminated, the City will re-inspect the outfall to ensure that there are no further illicit discharges from the outfall.

5.3 Non Storm Water Discharges

The City will establish an emergency hotline for the general public to report complaints. If a call is received regarding the storm sewer system, City staff will investigate. A database will be used to log calls.

- **5.3.1** Public Reporting: Establish a hotline for violations, complaints, tracking a designated database for annual reporting and evaluations. (City standard database)
- **5.3.2** The existing Household Hazardous Waste program allows the drop off of oil, paints, batteries, some appliances and other household hazardous wastes.
- **5.3.3** Continue to publicize and fund the existing household hazardous waste drop off program.

5.4 Water Conservation Ordinance

The existing ordinance will continue to be enforced or may be revised to incorporate more stringent enforcement as required to reduce residential and commercial non-storm water runoff.

5.4.1 Water Conservation Ordinance

The existing ordinance will continue to be enforced with a specific goal of reducing commercial and residential irrigation runoff. Involve educating public with billing inserts.

5.5 Public Employee Training

The City will train inspectors and develop a program that will detect non-storm water discharges. This program may include the following:

- SIC Code database for the industrial park
- Dry weather screening
- Response to public complaints
- **5.5.1** Train employees involved in the program.

5.6 Illicit Discharge Detection and Elimination

The effectiveness of the Illicit Discharge and Elimination element is dependent on reductions in the number of discharge incidents and the quantity of pollutants discharged to the drainage system as well as continued control of illicit connections. Efforts to measure effectiveness through quantification methods (e.g., "number of discharge incidents" or "pounds of pollutants") are not valid because they actually measure the effectiveness of identification and reporting programs that are continuing to develop and improve.

Other quantification efforts such as the gallons of waste oil collected might indicate a quantity of pollutants that was potentially kept out of the storm drains, but the annual increase or decrease might also be attributed to better record keeping or the availability of other collection or disposal alternatives. Also measured with this data is new and continuing public education.

Assessments will include feedback from City staff directly responsible for the day-to-day operation of the storm system, storm water monitoring results, and public comments.

5.6.1 Review Hotline data, Public Inspection, Municipal Reports and Building Department (Planning Review) input.

The City has identified several methods of detecting, reporting and preventing illicit discharges. The database provides accountability and a system to track data to measure the effects of the program and display the details related to the elimination of discharge.

The table on the following page summarizes the BMPs the City of Visalia will use to conduct the Illicit Discharge and Detection element of the program. Also included are the goals, milestone dates and assessment methods for each BMP, as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the program and to gauge the program's effectiveness.

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
5.1.1	Storm water Ordinance	December-05	Ordinance adopted	A City Ordinance will give the city the "legal" right to fully implement the SWMP. The City will have the authority to: "right of entry", "Cease and Desist orders", and "Criminal and Civil Penalties".	James Ross
5.2.1	Storm Water Master Plan (identify and map outfalls) G.I.S .	December-06	100% mapped Updated annually (min.)	Add locations of all outfalls & names of receiving ditches & creeks to current mapping.	James Ross
5.2.2	Inspection of outfalls Dry season inspection	-Procedure and forms by September 06 -Annually	Establish standard inspection procedures & inspect discharges annually. Review of data gathered for enforcement and/or improvements.	Number the illegal discharges eliminated each year based upon dry season inspections conducted each fall. Record enforcement or maintenance activities in database.	James Ross
5.3.1	Public Reporting: Hotline for violations & complaints	December-05	Establish Hotline and database	Hotline established w/ a database provided to log, monitor, and evaluate calls. Post violations and resolutions, monthly in local paper.	James Ross
5.3.2	Household Hazardous Waste program (City Corporation yard)	Ongoing	70 residents/ week	Volume and traffic at the disposal area	James Ross

5.7 Program Summary, Illicit Discharge Detection and Elimination

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
5.3.3	Publicize and Fund Household Hazardous Waste Drop off Program	Ongoing	20% increase in volume – Continue to support program and track volume. Publicize with print, radio and public events.	Increase in participants based upon record keeping and annual reporting.	James Ross
5.4.1	Water Conservation Ordinance (Reduce residential runoff of pesticides, fertilizers, wash water, etc.)	Ongoing	Continue to enforce program and track violations. 1 st yr. set baseline. 10% annual improvement thereafter. Educate public with billing inserts.	Reduction in number of violations per year of residential runoff in waterways	Anne Magana
5.5.1	Train all public employees involved in program	Ongoing	Adopt a program per public employee input and inspections	-Two meetings per year -Reduction in illicit discharges	Dennis Lehman
5.6.1	Illicit Discharge; Assessment & Evaluations Tracking System	Ongoing quarterly reviews	Review 80% (min.) of data collected quarterly. Detect patterns and areas of improvement and awareness.	Review of hotline data, public inspection, municipal reports and Building Department input.	James Ross

6.0 CONSTRUCTION SITE RUNOFF CONTROLS

Regulatory Requirements:

You must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for storm water discharges associated with small construction activity in accordance with Sec. 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

Your program must include the development and implementation of, at a minimum:

- An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;
- *Requirements for construction site operators to implement appropriate erosion and sediment control (ESC) best management practices;*
- Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- Procedures for site plan review which incorporate consideration of potential water quality impacts;

- *Procedures for receipt and consideration of information submitted by the public, and*
- Procedures for site inspection and enforcement of control measures.

Sediment runoff rates from construction sites are typically 10 to 20 times greater than those of agricultural lands, and 1,000 to 2,000 times greater than those of forest lands. Polluted storm water runoff from construction sites often flows to MS4s and is ultimately discharged into local rivers and streams. Sediment is usually the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades, resulting in physical, chemical, and biological harm to our nation's waters.

Visalia currently has measures in place to prevent storm water pollution from construction activities. The City's current building guidelines state

"... The contractor shall keep the work site clean and free of rubbish and debris. The contractor shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other method.

"... Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.

"... Failure of the Contractor to comply with engineer cleanup order may result in an order to suspend work until the condition is corrected."

6.1 Storm Water Ordinance

The City will develop a thorough storm water ordinance to meet the Phase II compliance requirements for construction runoff.

The ordinance will address erosion control, sediment and non-sediment construction wastes, and non-storm water discharges, along with authoritative enforcement information. The City will review the CASQA BMP handbooks and adopt BMP standards from this source or other equivalent. The approved construction standards will be provided to all developers, and approached in the Plan Review process.

- **6.1.1** The City will adopt a storm water ordinance with a tiered level of enforcement, which will be used as a mechanism to deter violations. This may include requirements to implement improved BMPs, bonding requirements, fines, work stoppages and/or permit denials.
- **6.1.2** The City will establish a tracking system for inspections, violations, and site prioritization.

6.2 Site Inspections

Construction sites are considered for all forms of storm water pollution and preventative measures. BMPs are implemented per site with considerations to before, during and after development. However, due to the flat topography and soil types in Visalia, there are few erosion or storm water runoff concerns. In this area, sediment leaving the site as mud and sediment attached to motorized vehicles is a more common occurrence. When these issues are encountered, they are resolved by implementing Best Management Practices. Many contractors have used stabilized gravel beds placed at entrance and exit points, for example. If dirt is tracked from the job site, the contractor is required to sweep the area where the dirt has been tracked.

Construction site inspections are routinely performed by authorized representatives of the City of Visalia. Such inspections are performed randomly and concurrently with other standard building inspections and are designed to ensure that necessary BMPs are being properly implemented and maintained and to ensure that there is no polluted runoff leaving the site and entering the storm sewer system.

- **6.2.1** The City will develop inspection procedures, inspection checklists, and instruct staff to use it in evaluating construction projects.
- **6.2.2** The City will provide training for all building inspectors, construction inspectors and plan checkers covering BMP measures, the City SWMP, and enforcement. Continue training w/ requirements for refreshers every other year.
- **6.2.3** The City will establish/identify priority sites, based on storm drain design, topography of area, past non-compliance, proximity to surface waters, etc., for inspections and communicate that to the staff.

6.3 Site Plan Review

The City currently reviews all new development and redevelopment projects greater than one acre. Through the site plan review process, city engineers, planners and building inspectors review storm water quality and controls with the developer during the preliminary design phases of the projects.

- **6.3.1** Continue to use site plan review process as a conduit to communicate and enforce the storm water ordinance. Organize ongoing refresher programs for continuous learning.
- **6.3.2** Use site plan review process as an opportunity to educate developers regarding the NPDES Phase II requirements. The City will advise developers of any approved construction BMP standards or new criteria. Organize ongoing refresher programs for continuous learning.
- **6.3.3** Require Notice of Intent submittal and Water Pollution Control Drawing verification through Plan Review process. The number of permits over 1 acre should directly correlate w/ project permits 1 acre or more.

6.4 Element Evaluation & Controls, Construction Site Runoff Controls

The effectiveness of the Construction Site Runoff element will be based on several factors, including the establishment of an effective program to enforce erosion control, the overall contractor compliance level and by runoff reduction from construction sites. City staff conducting field inspections or other appropriate means will assess this. Assessment information will be used by staff to plan and schedule the resources required to conduct the program and to gauge the program's effectiveness.

6.4.1 Plan review comments and Hotline calls, enforcements, and or follow ups, compiled in database, for full issue evaluation.

The table on the following page summarizes the BMPs the City of Visalia will use to conduct the Construction Site Runoff Control element of the program. Also included are the goals, milestone dates and assessment methods for each BMP as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the program and to gauge the program's effectiveness.

6.5 **Program Summary, Construction Site Runoff Controls**

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
6.1.1	Adopt a storm water ordinance and establish source control & pollution prevention standards and enforcement procedures	June-06	Obtain City Council approval and buy-in	Ordinance approved	David Jacobs
6.1.2	Establish a tracking system for inspections and violations	June-06	Program adopted and database established	Number of violations per year	Dennis Lehman
6.2.1	Develop Inspection procedures & train staff	June-06	 Plan in place Develop inspection procedures Establish checklist for evaluating construction projects Annual training; refresher and new staff. 	Plan in place June – 06 June – 06	Mike Olmos
6.2.2	The City will provide training for all building inspectors, construction inspectors and plan checkers covering BMP measures, the City SWMP and enforcement.	Dec-06	 Standards adopted (CASQA or equivalent) -50% of plan checkers trained by June-06 w/ difference by June-07 ongoing training for new employees and refreshers every other year as needed or min. 	Plan in place	David Jacobs
6.2.3	The City will establish/identify priority sites for inspections, Based on storm drain design, topography of area, past non-compliance, proximity to surface waters, etc., and communicate that to the staff.	Dec-06	 -Establish & implement procedures and training guidelines (refresher seminars every other year) 50% of Inspectors trained by June-06 w/ difference by June- 07 	Procedures in place and trained employees	David Jacobs

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
6.3.1	Procedures for site plan review & train plan checkers on requirements and conditions of approval for storm water management	June – 07	-Establish & implement procedures and training guidelines (refresher seminars every other year)	Procedures in place and continuing training for employees	David Jacobs
6.3.2	Conduct outreach to construction professionals (developers) during and after site plan review	Dec-07	Communicate storm water quality requirements to 100% of all projects processed through site plan	Site inspections & feedback from developers during site plan review & construction	David Jacobs
6.3.3	NOI submittal and WPCD verified through Plan Review process	Dec -06	100% correlation w/ permits approved	# of permits 1 or more acres should directly correlate w/ project permits 1 or more acres.	David Jacobs
6.4.1	Plan review comments and Hotline calls, enforcements, and or follow ups, compiled in database, for full issue evaluation.	June – 06	Program adopted and database established	Start, maintain and evaluate for annual reporting and prioritizing.	Dennis Lehman

7.0 POST-CONSTRUCTION RUNOFF CONTROLS

Regulatory Requirements:

You must develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

You must:

- Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;
- Use an ordinance or other regulatory mechanism to address postconstruction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law;
- Ensure adequate long-term operation and maintenance of BMPs.

Post-construction storm water management in areas undergoing new development or redevelopment is necessary because runoff from these areas has been shown to significantly affect receiving water bodies. Planning and design for the minimization of pollutants in post-construction storm water discharges is the most cost-effective approach to storm water quality management.

There are generally two forms of substantial impacts of post-construction runoff. The first is caused by an increase in the type and quantity of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients. These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams.

The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the water body during storms. Increased impervious surfaces interrupt the natural cycle of gradual percolation of water through vegetation and soil. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank scouring and downstream flooding, which can lead to property damage.

7.1 Site Plan Review

If water quality impacts are considered from the beginning stages of a project, new development, and potentially redevelopment, projects provide opportunities for water quality protection. The adoption of a planning process, coupled with the new storm water ordinance will identify the municipality's program goals, implementation strategies, and enforcement procedures is consistent with this measure's intent. Public and industry participation in the development of this planning process is highly desirable.

- **7.1.1** The City will adopt an ordinance including enforcement for post construction runoff and establishing a tiered level of enforcement for violations. This will include implementing required of BMPs, and possible fees, and/or fines.
- **7.1.2** The City will develop a planning process to incorporate new criteria, standards, and BMPs which will minimize, to the highest extent practical, the water quality impact for post-construction for new development and redevelopment.
- **7.1.3** Develop and implement a program incorporating the design standards contained in Attachment 4 requirements in the MS4 Permit and the new City ordinance into the site plan review and plan checks. (See Appendix "E" for Attachment 4)
- **7.1.4** Develop requirements for maintenance of privately-owned controls and establish a database for tracking private and public controls.

7.1.5 The existing site plan review and approval procedures will be incorporating the Attachment 4, CASQA BMP into requirements to ensure long-term water quality protection. These efforts will include "outreach and guidance to the development community" and to City staff "on construction and post-construction control requirements."

The above effects work together to reach the developer and the City in an effort to inform and enhance the overall development of sustaining storm water maintenance and control.

7.1 Education and Training

In order to effectively enforce and implement the Attachment 4 development and postconstruction runoff requirements, the City will need to educate staff of the new program.

- **7.1.2** Train staff on the Attachment 4 requirements and CASQA BMPs. (Post-construction requirements and conditions of approval.)
- **7.1.3** Train staff in maintenance of BMPs, long-term operations, and tracking.

7.2 Element Evaluation, Post Construction Runoff Controls

The success of the Post Construction Runoff element will be based on the degree to which water quality considerations have been incorporated into the design process. City staff will assess this during the site plan review process, field inspections or other appropriate means.

7.3.1 Establish procedures for tracking maintenance activities. (Hotline) Database will tabulate entries and proper responses implemented. (i.e. responses and follow up actions, etc.)

The table on the following page summarizes the BMPs the City of Visalia will use to conduct the Post Construction Runoff element of the program. Also included are the goals, milestone dates and assessment methods for each BMP as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the Program and to gauge the program's effectiveness.

7.4 Program Summary, Post Construction Runoff Controls

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
7.1.1	Draft and adopt ordinance, include enforcement for runoff & establish a system and procedures for enforcement of violations along with Attachment 4 requirements.	Dec-06	Ordinance adopted	Ordinance adopted	James Ross
7.1.2	Develop post-construction plan & technical criteria based on CASQA BMP's for selected control strategies	Dec-05	Plan in place	Plan in place	Mike Olmos
7.1.3	Develop and implement program requiring the design standards contained in Attachment 4. Incorporate Attachment 4 SWMP requirements into site plan review and plan checks.	June-07 Dec-07 June-06	- Plan Checkers - Field Inspectors -Educate City Engineers (provide Attachment 4 document MS4)	Identify the number of projects with Attachment 4 requirements/year	David Jacobs
7.1.4	Establish regulatory requirements for maintenance of privately-owned controls. Develop a database for tracking private and public structural controls. Will likely be GIS, but other means may be used.	Dec-07	Plan in place with storm water layer in GIS System	Tracking of structural controls and inspections	James Ross
7.1.5	Provide outreach and guidance to the development community through site plan review process and include Attachment 4 requirements in discussion and requirements.	June – 06	100% by June-06	Procedures established and number of attendees and records of sessions	David Jacobs
7.2.1	Train staff on post-construction requirements and conditions of approval.	Dec-05	Procedures established and 2 training sessions/year	Procedures established and number of attendees and records of sessions	David Jacobs

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
7.2.2	Train staff in maintenance of BMPs, long-term operation and tracking	Dec-05	2 training sessions/year	Number of attendees and records of sessions	David Jacobs
7.3.1	Establish procedures for tracking maintenance activities	Dec-05	Procedures established and 2 training sessions/year	Procedures established and summarized periodically	David Jacobs

7 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

Regulatory Requirements:

You must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. Using training materials that are available from EPA, your State, Tribe, or other organizations, your program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance

EPA recommends that, at a minimum, the following be considered when developing the Pollution Prevention and Good Housekeeping section of the SWMP:

- Maintenance activities, maintenance schedules, and long-term inspection procedures for structural and nonstructural storm water controls to reduce floatables and other pollutants discharged from your separate storm sewers,
- Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, and waste transfer stations,
- Procedures for properly disposing of waste removed from the separate storm sewers and areas listed above (such as dredge spoil, accumulated sediments, floatables, and other debris), and
- Ways to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

The City conducts numerous municipal operational and maintenance activities, some of which have the potential to result in discharges of pollutants in runoff or be sources of non-storm water discharges. It is important that the City evaluate these activities to identify those that could be significant sources of pollutants in runoff, develop appropriate measures to reduce the discharge of pollutants from these sources to the maximum extent practicable (MEP), and identify and control discharges of non-storm water from facilities owned or operated by the City.

Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems. Operation and maintenance of the storm system should be an integral component of this storm water management program.

7.1 System Evaluation

Visual inspection is a Best Management Practice (BMP) in which members of a storm water pollution prevention team visually examine material storage and outdoor processing areas, the storm water discharges from such areas, and the environment in the vicinity of the discharges, to identify contaminated runoff and its possible sources. The EPA has recognized visual inspection as a baseline BMP for over 10 years.

In a visual inspection, storm water runoff may be examined for the presence of floating and suspended materials, oil and grease, discoloration, turbidity, odor, or foam, and storage areas may be inspected for leaks from containers, discolorations on the storage area floor, or other indications of a potential for pollutants to contaminate storm water runoff. Visual inspections may indicate the need to modify a facility to reduce the risk of contaminating runoff.

8.1.1 The City will establish a Storm Water Pollution Prevention Team with representatives from throughout the organization. This team will periodically (quarterly) inspect City facilities and monitor activities on a regular basis (annually as a minimum) to determine what water quality improvements can be made. Information will be input to storm water database for compiling, sorting and evaluating.

8.1.2 The Storm Water Pollution Prevention Team will survey city departments and activities to determine those activities that may significantly contribute pollutants to the storm water system. Recommendations will be provided to staff.

8.2 Employee Training

The City's pollution prevention program cannot be successful without the support and involvement of the front-line employees and a strong commitment from senior management personnel.

- **8.2.1** A training program will be established to educate employees about storm water management, potential sources of contaminants, and Best Management Practices (BMPs).
- **8.2.2** The Municipal sites will include SWMP review in staff meetings. Review suggestions, improvements and implementations. Record for annual reporting.

The employee training program will be designed to:

- Instill personnel with an understanding of their role in pollution prevention and the practices and procedures for preventing discharges,
- Ensure strong commitment and periodic input from senior management,
- Communicate timely information to ensure adequate understanding and reinforcement of goals and objectives,
- Utilize the experiences from past spills to prevent future spills,
- Inform employees of BMP monitoring and spill reporting procedures, and
- Develop operating manuals and standard procedures.

8.3 Implement Storm Water Quality Programs

The City currently has a number of programs in place that fall under this MCM. However, the existing activities will be reevaluated during this permit term and activities will be documented better. In addition, visual inspections will be completed to verify effectiveness of certain efforts.

- **8.3.1** Continue to complete street sweeping activities. Log the number of miles swept per month.
- **8.3.2** The Pollution Prevention Plan for the City corporation yard will continue to be implemented.
- **8.3.3** Continue to monitor and implement maintenance activities on storm water control facilities. Document activities and complete visual inspections on a regular basis. (minimum annually prior to wet season)

8.4 Element Evaluation, Pollution Prevention and Good Housekeeping

The effectiveness of the Pollution Prevention and Good Housekeeping element is dependent on adequate training, resources, and staff to ensure that City operations and facilities are reducing storm water pollution and controlling non-storm water discharges. Assessments will include site visits, improved procedures for managing target pollutants, review of feedback from City staff, and public comments. Quantitative measurements of effectiveness include evaluation of sediment removed from sump maintenance and street sweeping, as well as estimated reductions in pollutant loadings.

8.4.1 Implement SWMP/BMPs into regularly scheduled staff meetings. Open forum for issues, improvements, maintenance, and training.

The table on the following page summarizes the BMPs the City of Visalia will use to conduct the Pollution Prevention and Good Housekeeping element of the program. Also included are the goals, milestone dates and assessment methods for each BMP as well as the person (or position) responsible for implementation. Assessment information will be used to plan and schedule the resources necessary to conduct the program and to gauge the program's effectiveness.

8.5 Program Summary, Pollution Prevention and Good Housekeeping

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
8.1.1	Establish Storm Water Pollution Prevention Team and inspect City facilities (currently there are 12 City Facilities to maintain)	Dec-05	Establish team 50% of city facilities per year	Team established	James Ross
8.1.2	Storm Water Team will survey city departments and & record activities to determine areas for improvement (currently there are 12 City Facilities to maintain)	Dec-07	50% of sites annually	Number of problems detected versus corrected	James Ross
8.2.1	Employee educational program. Develop and implement a program for municipal maintenance of structural storm water controls	Dec-07	50% employees / year	Number of employees reached	James Ross
8.2.2	The Municipal sites will include SWMP review in staff meetings. Water Treatment Facility	Dec - 06	Implement 50% of approved suggestions	Reduction in suggestions indicates better daily control	Andrew Benelli
8.3.1	Continue street sweeping operations and develop database	Ongoing	Maintain clean streets and environment	 Number of miles per month Volume & type of debris collected 	Andrew Benelli
8.3.2	Continue implementation of corporation yard SWPPP	Ongoing	Reduction in maintenance indicates better daily control	Record number of BMPs and maintenance. Periodic review	Andrew Benelli
8.3.3	Continue storm system maintenance activities and update database to log activities and inspections	Ongoing	Reduction in maintenance indicates better daily control	Record number of BMPs and maintenance. Periodic review and update database	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
8.4.1	Implement SWMP/BMPs into regularly scheduled staff meetings	Jan 06	Reduction in input indicates better daily control and opens for additional training	Record issues and improvements	Andrew Benelli

9.0 CITY OF VISALIA STORMWATER MANAGEMENT PROGRAM SUMMARY

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
3.1.1	Form a partnership and coordinate media efforts through local agencies (TCAG, Protect your Water)	December-05	Adopt an MOU or adopt other agreement	Based on TCAG printing, City will distribute Bilingual general storm water flyers to 1,000 residents each year	James Ross
3.1.2	Implement and coordinate with Real Estate agencies, Developers and Chamber of Commerce to insert Household Hazardous Waste flyers into new home packets.	March - 06	Involve the Real Estate industry with public education of their new home buyers. (1) flyer for each new home sold	Newer developments with fewer issues due to education of it's residences.	James Ross
3.1.3	Working with local retailers for counter displays for general storm water flyers. (currently ongoing with Orchard Supply Hardware)	Ongoing	Record number of pamphlets released on an annual basis.	Reduction of automotive type pollutants in storm drains inspections.	James Ross
3.2.1	Distribute material on proper trash disposal	December-05	500 door hangers each year.	Reduced trash in waterways	James Ross
3.2.2	Signage placed in illegal dumping areas	July-05	10 areas with 5 new sites each year	50% reduction in trash disposal in selected areas	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
3.2.3	Citizen Outreach: Presentations and community events	Ongoing	3 presentations or events per year	# of events or presentations w/ # of attendees & agendas on record for each event	Anne Magana
3.3.1	Restaurant guide on grease (Restaurants; approximately 175 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	+ 175 Restaurants 50% (88) of restaurants by the 2nd year, and with the remainder. the following year (3rd year)	SSO decrease w/ inspections conducted twice a yr.	James Ross
3.3.2	Business Outreach: Auto repair facility guide on fluid disposal (Automotive Repair; approx. 100 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	+ 100 Repair services 25% (25) of outlets with 25% increase each year	Number of pamphlets distributed	James Ross
3.3.3	Display material in automotive supply outlets (Automotive Supply; approx. 25 listed in the SBC, Yellow Pages, Aug. 2005)	December-06	+ 25 Supply outlets 25% (6) of outlets in year 1 with a 25% increase each year	Number of pamphlets distributed	James Ross
4.1.1	Storm drain Stencils or Markers	December-06	500 storm drains per year	Number of storm drains stenciled and number of groups participating	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
4.1.2	New developments, the developer will stencil drain inlets as part of the project requirement in the Permit Approval process.	January-06	100% new developments in compliance	Report direct correlation between new developments and new storm drains stenciled.	James Ross
4.2.1	Establish water quality hotline	December-05	Establish Hotline	Hotline established w/ a database providing responsibility, data recording, and enforcement to log calls	James Ross
4.3.1	Bark Parks and other City Parks Post signage & pamphlets regarding effects of pet waste and appreciation.	Ongoing	Establish two dedicated areas within the community.	Number of bags used & monthly visual inspections. Cycle pamphlets quarterly	James Ross
4.4.1	Annual participation in booth @ County Fair (w/ storm water questionnaire – started in 2004)	December-05	500 questionnaires filled out each year	Number of questionnaires filled out each year and feedback regarding the public knowledge of storm water issues	James Ross
5.1.1	Storm water Ordinance	December-05	Ordinance adopted	A City Ordinance will give the city the "legal" right to fully implement the SWMP. The City will have the authority to: "right of entry", "Cease and Desist orders", and "Criminal and Civil Penalties".	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
5.2.1	Storm Water Master Plan (identify and map outfalls) G.I.S.	December-06	100% mapped Updated annually (min.)	Add locations of all outfalls & names of receiving ditches & creeks to current mapping.	James Ross
5.2.2	Inspection of outfalls Dry season inspection	-Procedure and forms by September 06 -Annually	Establish standard inspection procedures & inspect discharges annually. Review of data gathered for enforcement and/or improvements.	Number the illegal discharges eliminated each year based upon dry season inspections conducted each fall. Record enforcement or maintenance activities in database.	James Ross
5.3.1	Public Reporting: Hotline for violations & complaints	December-05	Establish Hotline and database	Hotline established w/ a database provided to log, monitor, and evaluate calls. Post violations and resolutions, monthly in local paper.	James Ross
5.3.2	Household Hazardous Waste program (City Corporation yard)	Ongoing	70 residents/ week	Volume and traffic at the disposal area	James Ross
5.3.3	Publicize and Fund Household Hazardous Waste Drop off Program	Ongoing	20% increase in volume – Continue to support program and track volume. Publicize with print, radio and public events.	Increase in participants based upon record keeping and annual reporting.	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
5.4.1	Water Conservation Ordinance (Reduce residential runoff of pesticides, fertilizers, wash water, etc.)	Ongoing	Continue to enforce program and track violations. 1st yr. set baseline. 10% annual improvement thereafter. Educate public with billing inserts.	Reduction in number of violations per year of residential runoff in waterways	Anne Magana
5.5.1	Train all public employees involved in program	Ongoing	Adopt a program per public employee input and inspections	-Two meetings per year -Reduction in illicit discharges	Dennis Lehman
5.6.1	Illicit Discharge; Assessment & Evaluations Tracking System	Ongoing quarterly reviews	Review 80% (min.) of data collected quarterly. Detect patterns and areas of improvement and awareness.	Review of hotline data, public inspection, municipal reports and Building Department input.	James Ross
6.1.1	Adopt a storm water ordinance and establish source control & pollution prevention standards and enforcement procedures	June-06	Obtain City Council approval and buy-in	Ordinance approved	David Jacobs
6.1.2	Establish a tracking system for inspections and violations	June-06	Program adopted and database established	Number of violations per year	Dennis Lehman

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
6.2.1	Develop Inspection procedures & train staff	June-06	 Plan in place Develop inspection procedures Establish checklist for evaluating construction projects Annual training; refresher and new staff. 	Plan in place June – 06 June – 06	Mike Olmos
6.2.2	The City will provide training for all building inspectors, construction inspectors and plan checkers covering BMP measures, the City SWMP and enforcement.	Dec-06	 Standards adopted (CASQA or equivalent) -50% of plan checkers trained by June-06 w/ difference by June-07 ongoing training for new employees and refreshers every other year as needed or min. 	Plan in place	David Jacobs

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
6.2.3	The City will establish/identify priority sites for inspections, Based on storm drain design, topography of area, past non-compliance, proximity to surface waters, etc., and communicate that to the staff.	Dec-06	 -Establish & implement procedures and training guidelines (refresher seminars every other year) - 50% of Inspectors trained by June-06 w/ difference by June-07 	Procedures in place and trained employees	David Jacobs
6.3.1	Procedures for site plan review & train plan checkers on requirements and conditions of approval for storm water management	June – 07	-Establish & implement procedures and training guidelines (refresher seminars every other year)	Procedures in place and continuing training for employees	David Jacobs
6.3.2	Conduct outreach to construction professionals (developers) during and after site plan review	Dec-07	Communicate storm water quality requirements to 100% of all projects processed through site plan	Site inspections & feedback from developers during site plan review & construction	David Jacobs
6.3.3	NOI submittal and WPCD verified through Plan Review process	Dec -06	100% correlation w/ permits approved	# of permits 1 or more acres should directly correlate w/ project permits 1 or more acres.	David Jacobs
6.4.1	Plan review comments and Hotline calls, enforcements, and or follow ups, compiled in database, for full issue evaluation.	June – 06	Program adopted and database established	Start, maintain and evaluate for annual reporting and prioritizing.	Dennis Lehman

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
7.1.1	Draft and adopt ordinance, include enforcement for runoff & establish a system and procedures for enforcement of violations along with Attachment 4 requirements.	Dec-06	Ordinance adopted	Ordinance adopted	James Ross
7.1.2	Develop post-construction plan & technical criteria based on CASQA BMP's for selected control strategies	Dec-05	Plan in place	Plan in place	Mike Olmos
7.1.3	Develop and implement program requiring the design standards contained in Attachment 4. Incorporate Attachment 4 SWMP requirements into site plan review and plan checks.	June-07 Dec-07 June-06	 Plan Checkers Field Inspectors Educate City Engineers (provide Attachment 4 document MS4) 	Identify the number of projects with Attachment 4 requirements/year	David Jacobs
7.1.4	Establish regulatory requirements for maintenance of privately-owned controls. Develop a database for tracking private and public structural controls. Will likely be GIS, but other means may be used.	Dec-07	Plan in place with storm water layer in GIS System	Tracking of structural controls and inspections	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
7.1.5	Provide outreach and guidance to the development community through site plan review process and include Attachment 4 requirements in discussion and requirements.	June – 06	100% by June-06	Procedures established and number of attendees and records of sessions	David Jacobs
7.2.1	Train staff on post-construction requirements and conditions of approval.	Dec-05	Procedures established and 2 training sessions/year	Procedures established and number of attendees and records of sessions	David Jacobs
7.2.2	Train staff in maintenance of BMPs, long-term operation and tracking	Dec-05	2 training sessions/year	Number of attendees and records of sessions	David Jacobs
7.3.1	Establish procedures for tracking maintenance activities	Dec-05	Procedures established and 2 training sessions/year	Procedures established and summarized periodically	David Jacobs
8.1.1	Establish Storm Water Pollution Prevention Team and inspect City facilities (currently there are 12 City Facilities to maintain)	Dec-05	Establish team 50% of city facilities per year	Team established	James Ross
8.1.2	Storm Water Team will survey city departments and & record activities to determine areas for improvement (currently there are 12 City Facilities to maintain)	Dec-07	50% of sites annually	Number of problems detected versus corrected	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
8.2.1	Employee educational program. Develop and implement a program for municipal maintenance of structural storm water controls	Dec-07	50% employees / year	Number of employees reached	James Ross
8.2.2	The Municipal sites will include SWMP review in staff meetings. Water Treatment Facility	Dec - 06	Implement 50% of approved suggestions	Reduction in suggestions indicates better daily control	Andrew Benelli
8.3.1	Continue street sweeping operations and develop database	Ongoing	Maintain clean streets and environment	- Number of miles per month -Volume & type of debris collected	Andrew Benelli
8.3.2	Continue implementation of corporation yard SWPPP	Ongoing	Reduction in maintenance indicates better daily control	Record number of BMPs and maintenance. Periodic review	Andrew Benelli
8.3.3	Continue storm system maintenance activities and update database to log activities and inspections	Ongoing	Reduction in maintenance indicates better daily control	Record number of BMPs and maintenance. Periodic review and update database	James Ross

Task #	BMP Description	Timeline	Goal	Assessment	Responsible
8.4.1	Implement SWMP/BMPs into regularly scheduled staff meetings	Jan 06	Reduction in input indicates better daily control and opens for additional training	Record issues and improvements	Andrew Benelli

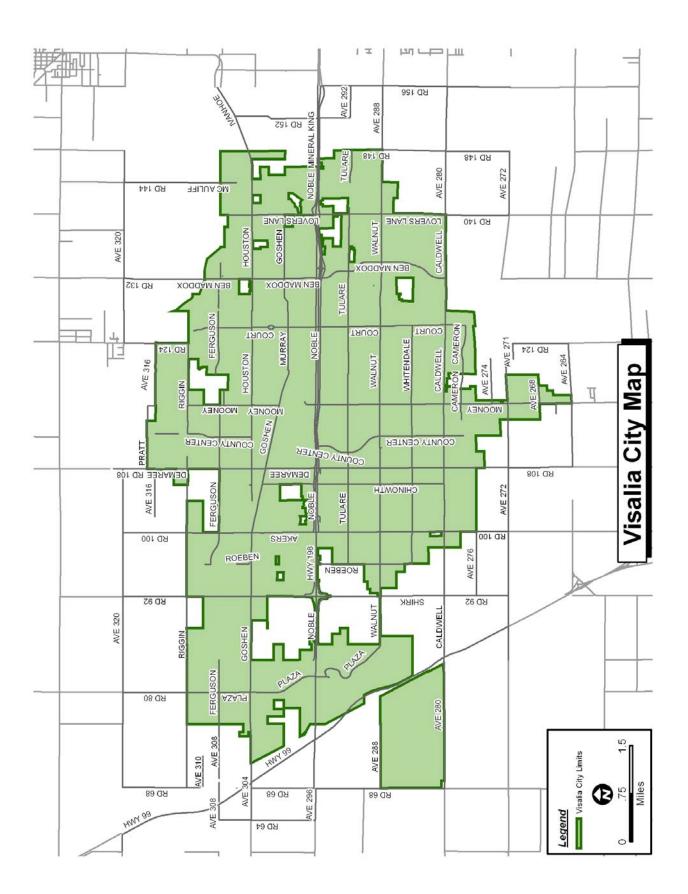
10.0 ABBREVIATIONS

As used in this report, the following abbreviations have the specified meaning.

BMP	Best Management Practice		
CASQA	California Stormwater Quality Association		
CEQA	California Environmental Quality Act		
COC	Constituents of Concern		
CWA	Clean Water Act		
EIR	Environmental Impact Report		
EPA	Environmental Protection Agency		
ESC	Erosion and Sediment Control		
FOG	Fat, Oil and Grease		
GIS	Geographic Information System		
HHW	Household Hazardous Waste		
МСМ	Minimum Control Measure		
MEP	Maximum Extent Practicable		
MS4	Municipal Separate Storm Sewer System		
NOI	Notice Of Intent		
NPDES	National Pollutant Discharge Elimination System		
RWQCB	Regional Water Quality Control Board		
SDMP	Storm Drain Master Plan		
SSO	Sanitary Sewer Overflow		
SWMP	Storm Water Management Program		
SWPPP	Storm Water Pollution Prevention Plan		
SWRCB	State Water Resource Control Board		
TMDL	Total Maximum Daily Load		
WPCD	Water Pollution Control Drawing		

APPENDICES

Appendix A – Visalia City Map



Appendix B – City of Visalia Flyers, Existing Program Flyers

City of Visalia 2_{7d} Annual Fall Dump-On-Us **The Sound of His Voice Church 525 S. Atwood REFUSE ITEMS NOT ACCEPTED** Concrete - Take to Saturday Glen Wells, Goshen, 625-0695 October 1, 2005 7:00 a.m. - 11:00 **Hazardous Waste** 335 N. Cain St. Information: 713-4500 713-4531 or 733-6441 Open: Saturdays only 10am - 3pm ACCEPTED ITEMS Tires with Rims Air Conditioning/Heating Units

- Bamboo
- Cactus
- Cell Phones
- Dryers
- **Fencing Material**
- Furniture
- Mattress
- Palm Fronds
- Scrap Metal
- Small Appliances
- Tires Rims MUST be REMOVED
- Printer Toner Cartridges
- Washers
- Yucca Trees

ectron1C

Get Rid of Your E-Waste!

C-SET is collecting computer monitors, CPUs, keyboards, laptops, TVs, and toner cartridges at this Dump On Us event.

GREEN WASTE ACCEPTED

- Branches
- Grass Clippings Leaves
- Lumber
- Prunings
- Yard Trimmings
- Wood

Take to Household Hazardous Waste

NOT ACCEPTED AS GREEN WASTE

These items are accepted as refuse. Please keep separate from green waste.

- Palm Fronds
- Treated Wood
- Yucca Leaves

Dump-On-Us Requirements

- Limited to City of Visalia Residents
- Proof of Visalia Residency is Required
- Doors MUST be REMOVED from all Large Appliances
- Limited to One Visit
- Limited to One Small Truck and/or Small Trailer per Event

Highway 198

Enter from

Linwoo

Commercial Waste is NOT accepted

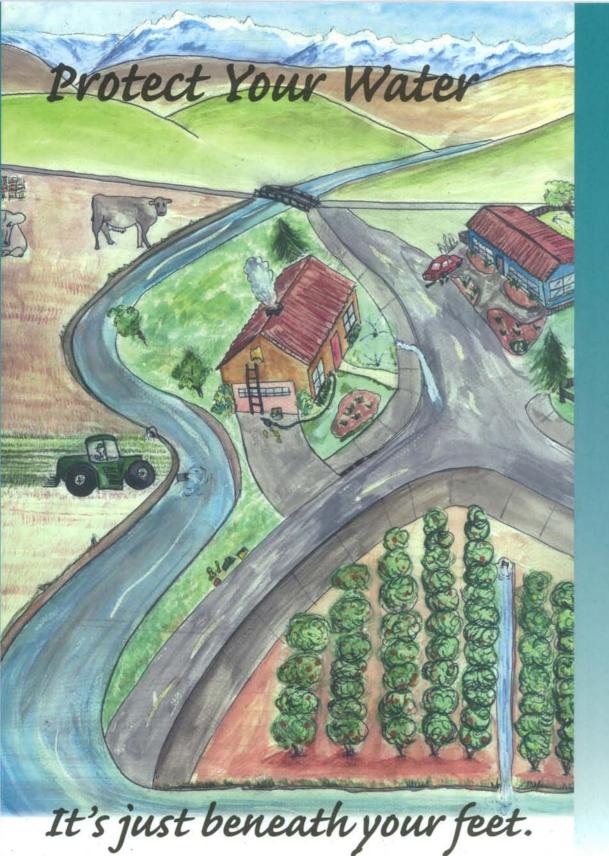
LOCATION

525 S. Atwood

LifeStyle Center

Limit to 4 Tires without Rims per Event

Appendix C – TCG Flyer, "Protect Your Water"



Tulare County Clean Storm Water Program

Water is the most vital resource in the Valley. If you think about it, water has an effect on everything we do in our dayto-day lives. From keeping our lawns green, to washing our dishes, we depend on water. Water plays an important role throughout our community.

For Agriculture ...

Water is delivered through a network of canals that is managed by individual water districts. Water from rivers flows through our community – providing water for food that feeds a nation.

For Industry ...

Businesses in our community depend on clean water for food processing, manufacturing, health care and other related industries. A clean and reliable water source is necessary to support a healthy economy.

For Home ...

Every day we need clean water for drinking and bathing. Our communities depend on water that is supplied primarily from groundwater. Protecting groundwater is essential to protecting public health.

For Wildlife ...

Our urban environment needs clean water in streams, lakes and ponds to provide nesting habitat for birds and other wildlife.

How Can You Help?

We're all responsible for keeping our water clean – for the future of the Valley, our communities and our children. And it starts at home.

By doing a few simple things, you can help protect the water beneath our feet. Look inside to find out what you can do.

Bag, seal and throw away pet waste - it keeps runoff and streets clean.

Put litter in trash cans. It keeps our storm drains and community clean.

Carpool to reduce air pollution, so it also helps reduce water pollution.

Set sprinkler timers to reduce contamination of runoff water from pesticides and fertilizers and help maintain a clean water supply. Use a shutoff nozzle to avoid unnecessary runoff.

Volunteer to help label storm drains with "No Dumping!" signs.

Recycle waste to keep litter off our streets and ease the strain on our landfills.

Instead of hosing, sweep driveways and sidewalks. This prevents storm water pollution and conserves water.

Take unused paint, pesticides, fertilizers and other hazardous items to a Household Hazardous Waste drop-off center. For information, call 733-6441.









It's up to us!

We need clean water today and for future generations. Preventing storm water pollution is important and will help keep our communities clean



Cover a hazardous material spill (such as used motor oil or antifreeze) with kitty litter, then sweep it up and take it to a Household Hazardous Waste drop-off center. Never hose spills into the gutter!

Car Fluids

Inspect your car regularly to Don't dump motor oil or anti drains! Recycle motor oil and



How Does Storm Water Become Polluted?

When it rains, storm water flows across driveways, streets and lawns. As it flows, it can pick up pollutants such as oil, pesticides, cigarette butts and trash. This runoff carries these pollutants through the storm drain system. The pollutants then can affect wildlife habitats, outdoor recreation and our water supply.

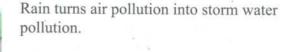
Even when it's not raining, water from sprinklers, car washing, pool draining and other sources can carry pollutants into the storm drain system.



Rain gathers oil and other toxic fluids from leaky cars.

Runoff collects litter and yard waste.





Runoff picks up detergent and grime from car washing.

Overusing pesticides means money and pollutants down the drain. (The storm drain, that is!)

Overwatering creates runoff that can carry fertilizers and pesticides into the storm drain system.





Tulare County Clean Storm Water Program

Where Does the Storm Water Go?

Rain and excess water from your home flow right to storm drains. This water flows down streets, through gutters, into pipes, to ponding basins, canals, creeks and rivers.

In these basins and waterways, runoff seeps through the soil and into groundwater – our drinking water supply. That's why it's important to keep storm drains and runoff clean.

Loose Litter

Litter hurts our community. It contaminates our water resources and clogs storm drains – causing floods in our neighborhoods. Be sure to properly dispose of garbage, pet waste and cigarette butts! For more information on litter control, go to www.donttrashcalifornia.info.

Home and Garden

Maintaining our homes and gardens is necessary, but overusing chemicals is not. Buy household and garden products only in the amount needed and read and follow the label directions. Better yet, use alternative products. Avoid using lawn and garden products when rain is forecast! Take all unused products to a Household Hazardous Waste drop-off center. For information, call 733-6441.





Tulare County Clean Storm Water Program Contacts

City of Visalia Public Works 7579 Avenue 288 Visalia, CA. 93277 (559) **713-4466**

County of Tulare Resource Management Agency 5961 S. Mooney Boulevard Visalia, CA. 93277 (559) 733-6291

City of Woodlake Public Works 350 N. Valencia Avenue Woodlake, CA. 93286 (559) 564-2317

Cities of Farmersville, Exeter, Dinuba Quad-Knopf Engineering 5110 W. Cypress Avenue Visalia, CA. 93278 (559) 733-0440



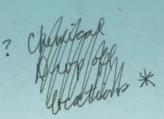
City of Tulare Public Works 3981 South "K" Street Tulare, CA. 93274 (559) 684-4318

City of Porterville Field Services Div. 291 N. Main Street Porterville, CA. 93257 (559) 782-7462

Tulare County Association of Governments TCAG 5961 S. Mooney Boulevard Visalia, CA. 93277 (559) 733-6291



TCAG 5961 S. Mooney Blvd. Visalia, Ca 93277 (559) 733-6291 www.tularecog.org



Appendix D – City Standard Database Sample

SWMP STORM WATER QUALITY CONTROL DATA ENTRY

Entered By: _(de	<u>signate employee)</u>	Date:(<i>recv'd</i>)	Source: Call		
			□ Inspection		
			□ Review		
Call into:	Hotline Department	(Dept title)	Received by:(person)		
Information:					
Name of ca	aller: <u>(not re</u>	<u>quired)</u>			
	dress: <u>(not re</u>	_			
Pho Fallow un data:		· · · · · · · · · · · · · · · · · · ·	Wielsting Januard		
Follow up date:		rected date:	_ Violation issued:		
Type of Issue:	□ Illegal Dum	ping – Trash	Construction Site		
	Illicit Disch	arge - Residential	rge - Residential 🛛 Public Parks / Areas		
	Illicit Disch	arge - Commercial			
	□ Household	Iazardous Waste			
	□ Water Cons	ervation (Runoff)			
General Description	on:				
Identify, per SWM	IP, the MCM that l	best describes this to	pic: X box		
Public Participation	Illicit Discharge	Construction	Pollution Prevention		
□ Fall Drop Off	□ Mapping GIS	□ Planning & Site	□ Street Sweeping		
□ Flyers	□ Restaurants	□ Permit	□ Basins		
□ Signage	Auto Repair	□ Developer	□ Sewer System		
□ Events	□ Auto Supply	□ Tradesmen	□ Septic		
□ Stenciling	□ Hotline	□ Stenciling	□ Waste Management		
□ Bark Parks		□ Homeowner	Ditches, Creeks or Rivers		
□ Household Haz Mat		☐ Hotline call			

 \Box Water Conservation

□ Illegal Dumping – Trash

Appendix E – SWRCB MS4 Attachment 4

Areas subject to high growth or serving a population of at least 50,000 must comply with the following provisions (for counties this threshold population applies to the population within the permit area).

A. RECEIVING WATER LIMITATIONS

- 1. Discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule (CTR), or in the applicable RWQCB Basin Plan.
- 2. The permittees shall comply with Receiving Water Limitations A.1 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SWMP and other requirements of this permit including any modifications. The SWMP shall be designed to achieve compliance with Receiving Water Limitations A.1. If exceedance(s) of water quality objectives or water quality standards (collectively, WQS) persist notwithstanding implementation of the SWMP and other requirements of this permit, the permittees shall assure compliance with Receiving Water Limitations A.1 by complying with the following procedure:
 - a. Upon a determination by either the permittees or the RWQCB that discharges are causing or contributing to an exceedance of an applicable WQS, the permittees shall promptly notify and thereafter submit a report to the RWQCB that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The report may be incorporated in the annual update to the SWMP unless the RWQCB directs an earlier submittal. The report shall include an implementation schedule. The RWQCB may require modifications to the report.
 - b. Submit any modifications to the report required by the RWQCB within 30 days of notification.
 - c. Within 30 days following approval of the report described above by the RWQCB, the permittees shall revise the SWMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, implementation schedule, and any additional monitoring required.
 - d. Implement the revised SWMP and monitoring program in accordance with the approved schedule.

So long as the permittees have complied with the procedures set forth above and are implementing the revised SWMP, the permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the RWQCB to develop additional BMPs.

B. DESIGN STANDARDS

Regulated Small MS4s subject to this requirement must adopt an ordinance or other document to ensure implementation of the Design Standards included herein or a functionally equivalent program that is acceptable to the appropriate RWQCB. The ordinance or other document must be adopted and effective prior to the expiration of this General Permit or, for Small MS4s designated subsequent to the Permit adoption, within five years of designation as a regulated Small MS4.

All discretionary development and redevelopment projects that fall into one of the following categories are subject to these Design Standards. These categories are:

- Single-Family Hillside Residences
- 100,000 Square Foot Commercial Developments
- Automotive Repair Shops
- Retail Gasoline Outlets
- Restaurants
- Home Subdivisions with 10 or more housing units
- Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff
- 1. Conflicts With Local Practices

Where provisions of the Design Standards conflict with established local codes or other regulatory mechanism, (e.g., specific language of signage used on storm drain stenciling), the Permittee may continue the local practice and modify the Design Standards to be consistent with the code or other regulatory mechanism, except that to the extent that the standards in the Design Standards are more stringent than those under local codes or other regulatory mechanism, such more stringent standards shall apply.

- 2. Design Standards Applicable to All Categories
 - a. Peak Storm Water Runoff Discharge Rates

Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion.

b. Conserve Natural Areas

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- 1) Concentrate or cluster Development on portions of a site while leaving the remaining land in a natural undisturbed condition.
- 2) Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.
- 3) Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.

- 4) Promote natural vegetation by using parking lot islands and other landscaped areas.
- 5) Preserve riparian areas and wetlands.
- c. Minimize Storm Water Pollutants of Concern

Storm water runoff from a site has the potential to contribute oil and grease, suspended solids, metals, gasoline, pesticides, and pathogens to the storm water conveyance system. The development must be designed so as to minimize, to the maximum extent practicable, the introduction of pollutants of concern that may result in significant impacts, generated from site runoff of directly connected impervious areas (DCIA), to the storm water conveyance system as approved by the building official. Pollutants of concern consist of any pollutants that exhibit one or more of the following characteristics: current loadings or historic deposits of the pollutant are impacting the beneficial uses of a receiving water, elevated levels of the pollutant are found in sediments of a receiving water and/or have the potential to bioaccumulate in organisms therein, or the detectable inputs of the pollutant are at concentrations or loads considered potentially toxic to humans and/or flora and fauna.

In meeting this specific requirement, "minimization of the pollutants of concern" will require the incorporation of a BMP or combination of BMPs best suited to maximize the reduction of pollutant loadings in that runoff to the Maximum Extent Practicable. Those BMPs best suited for that purpose are those listed in the *California Storm Water Best Management Practices Handbooks*; *Caltrans Storm Water Quality Handbook: Planning and Design Staff Guide; Manual for Storm Water Management in Washington State; The Maryland Stormwater Design Manual; Florida Development Manual: A Guide to Sound Land and Water Management; Denver Urban Storm Drainage Criteria Manual, Volume 3 – Best Management Practices and Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, USEPA Report No. EPA-840-B-92-002, as "likely to have significant impact" beneficial to water quality for targeted pollutants that are of concern at the site in question. However, it is possible that a combination of BMPs not so designated, may in a particular circumstance, be better suited to maximize the reduction of the pollutants.

d. Protect Slopes and Channels

Project plans must include BMPs consistent with local codes, ordinances, or other regulatory mechanism and the Design Standards to decrease the potential of slopes and/or channels from eroding and impacting storm water runoff:

- 1) Convey runoff safely from the tops of slopes and stabilize disturbed slopes.
- 2) Utilize natural drainage systems to the maximum extent practicable.
- 3) Stabilize permanent channel crossings.
- 4) Vegetate slopes with native or drought tolerant vegetation, as appropriate.
- 5) Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion, with the approval of all agencies

with jurisdiction, e.g., the U.S. Army Corps of Engineers and the California Department of Fish and Game.

e. Provide Storm Drain System Stenciling and Signage

Storm drain stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets. The stencil contains a brief statement that prohibits the dumping of improper materials into the storm water conveyance system. Graphical icons, either illustrating anti-dumping symbols or images of receiving water fauna, are effective supplements to the anti-dumping message. All storm drain inlets and catch basins within the project area must be stenciled with prohibitive language (such as: "NO DUMPING – DRAINS TO OCEAN") and/or graphical icons to discourage illegal dumping. Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area. Legibility of stencils and signs must be maintained.

f. Properly Design Outdoor Material Storage Areas

Outdoor material storage areas refer to storage areas or storage facilities solely for the storage of materials. Improper storage of materials outdoors may provide an opportunity for toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to enter the storm water conveyance system. Where proposed project plans include outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system, the following Structural or Treatment BMPs are required:

- Materials with the potential to contaminate storm water must be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.
- 2) The storage area must be paved and sufficiently impervious to contain leaks and spills.
- 3) The storage area must have a roof or awning to minimize collection of storm water within the secondary containment area.
- g. Properly Design Trash Storage Areas

A trash storage area refers to an area where a trash receptacle or receptacles (dumpsters) are located for use as a repository for solid wastes. Loose trash and debris can be easily transported by the forces of water or wind into nearby storm drain inlets, channels, and/or creeks. All trash container areas must meet the following Structural or Treatment Control BMP requirements (individual single family residences are exempt from these requirements):

- 1) Trash container areas must have drainage from adjoining roofs and pavement diverted around the area(s).
- 2) Trash container areas must be screened or walled to prevent off-site transport of trash.
- h. Provide Proof of Ongoing BMP Maintenance

Improper maintenance is one of the most common reasons why water quality controls will not function as designed or which may cause the system to fail entirely. It is important to consider who will be responsible for maintenance of a permanent BMP, and what equipment is required to perform the maintenance properly. As part of project review, if a project applicant has included or is required to include, Structural or Treatment Control BMPs in project plans, the Permittee shall require that the applicant provide verification of maintenance provisions through such means as may be appropriate, including, but not limited to legal agreements, covenants, CEQA mitigation requirements and/or Conditional Use Permits.

For all properties, the verification will include the developer's signed statement, as part of the project application, accepting responsibility for all structural and treatment control BMP maintenance until the time the property is transferred and, where applicable, a signed agreement from the public entity assuming responsibility for Structural or Treatment Control BMP maintenance. The transfer of property to a private or public owner must have conditions requiring the recipient to assume responsibility for maintenance of any Structural or Treatment Control BMP to be included in the sales or lease agreement for that property, and will be the owner's responsibility. The condition of transfer shall include a provision that the property owners conduct maintenance inspection of all Structural or Treatment Control BMPs at least once a year and retain proof of inspection. For residential properties where the Structural or Treatment Control BMPs are located within a common area which will be maintained by a homeowner's association, language regarding the responsibility for maintenance must be included in the project's conditions, covenants and restrictions (CC&Rs). Printed educational materials will be required to accompany the first deed transfer to highlight the existence of the requirement and to provide information on what storm water management facilities are present, signs that maintenance is needed, how the necessary maintenance can be performed, and assistance that the Permittee can provide. The transfer of this information shall also be required with any subsequent sale of the property.

If Structural or Treatment Control BMPs are located within a public area proposed for transfer, they will be the responsibility of the developer until they are accepted for transfer by the County or other appropriate public agency. Structural or Treatment Control BMPs proposed for transfer must meet design standards adopted by the public entity for the BMP installed and should be approved by the County or other appropriate public agency prior to its installation.

- i. Design Standards for Structural or Treatment Control BMPs The Permittees shall require that post-construction treatment control BMPs incorporate, at a minimum, either a volumetric or flow based treatment control design standard, or both, as identified below to mitigate (infiltrate, filter or treat) storm water runoff:
 - 1) Volumetric Treatment Control BMP

- a) The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998); or
- b) The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook Industrial/ Commercial, (2003); or
- c) The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.
- 2) Flow Based Treatment Control BMP
 - a) The flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the area; or
 - b) The flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards above.

Limited Exclusion

Restaurants and Retail Gasoline Outlets, where the land area for development or redevelopment is less than 5,000 square feet, are excluded from the numerical Structural or Treatment Control BMP design standard requirement only.

- 3. Provisions Applicable to Individual Priority Project Categories
 - a. 100,000 Square Foot Commercial Developments
 - Properly Design Loading/Unloading Dock Areas Loading/unloading dock areas have the potential for material spills to be quickly transported to the storm water conveyance system. To minimize this potential, the following design criteria are required:
 - a) Cover loading dock areas or design drainage to minimize run-on and runoff of storm water.
 - b) Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.
 - 2) Properly Design Repair/Maintenance Bays Oil and grease, solvents, car battery acid, coolant and gasoline from the repair/maintenance bays can negatively impact storm water if allowed to come into contact with storm water runoff. Therefore, design plans for repair bays must include the following:

- a) Repair/maintenance bays must be indoors or designed in such a way that doesn't allow storm water runon or contact with storm water runoff.
- b) Design a repair/maintenance bay drainage system to capture all washwater, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.
- 3) Properly Design Vehicle/Equipment Wash Areas

The activity of vehicle/equipment washing/steam cleaning has the potential to contribute metals, oil and grease, solvents, phosphates, and suspended solids to the storm water conveyance system. Include in the project plans an area for washing/steam cleaning of vehicles and equipment. The area in the site design must be:

- a) Self-contained and/ or covered, equipped with a clarifier, or other pretreatment facility, and
- b) Properly connected to a sanitary sewer or other appropriately permitted disposal facility.
- b. Restaurants
 - Properly Design Equipment/Accessory Wash Areas
 The activity of outdoor equipment/accessory washing/steam cleaning has the
 potential to contribute metals, oil and grease, solvents, phosphates, and suspended
 solids to the storm water conveyance system. Include in the project plans an area
 for the washing/steam cleaning of equipment and accessories. This area must be:
 - a) Self-contained, equipped with a grease trap, and properly connected to a sanitary sewer.
 - b) If the wash area is to be located outdoors, it must be covered, paved, have secondary containment, and be connected to the sanitary sewer or other appropriately permitted disposal facility.
- c. Retail Gasoline Outlets
 - 1) Properly Design Fueling Area

Fueling areas have the potential to contribute oil and grease, solvents, car battery acid, coolant and gasoline to the storm water conveyance system. The project plans must include the following BMPs:

a) The fuel dispensing area must be covered with an overhanging roof structure or canopy. The canopy's minimum dimensions must be equal to or greater than the area within the grade break. The canopy must not drain onto the fuel dispensing area, and the canopy downspouts must be routed to prevent drainage across the fueling area.

- b) The fuel dispensing area must be paved with Portland cement concrete (or equivalent smooth impervious surface), and the use of asphalt concrete shall be prohibited.
- c) The fuel dispensing area must have a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents runon of storm water to the extent practicable.
- d) At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.
- d. Automotive Repair Shops
 - 1) Properly Design Fueling Area

Fueling areas have the potential to contribute oil and grease, solvents, car battery acid, coolant and gasoline to the storm water conveyance system. Therefore, design plans, which include fueling areas, must contain the following BMPs:

- a. The fuel dispensing area must be covered with an overhanging roof structure or canopy. The canopy's minimum dimensions must be equal to or greater than the area within the grade break. The canopy must not drain onto the fuel dispensing area, and the canopy downspouts must be routed to prevent drainage across the fueling area.
- b. The fuel dispensing area must be paved with Portland cement concrete (or equivalent smooth impervious surface), and the use of asphalt concrete shall be prohibited.
- c. The fuel dispensing area must have a 2% to 4% slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents runon of storm water to the extent practicable.
- d. At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.
- 2) Properly Design Repair/Maintenance Bays

Oil and grease, solvents, car battery acid, coolant and gasoline from the repair/maintenance bays can negatively impact storm water if allowed to come into contact with storm water runoff. Therefore, design plans for repair bays must include the following:

- a) Repair/maintenance bays must be indoors or designed in such a way that doesn't allow storm water run-on or contact with storm water runoff.
- b) Design a repair/maintenance bay drainage system to capture all wash-water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is

prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.

3) Properly Design Vehicle/Equipment Wash Areas

The activity of vehicle/equipment washing/steam cleaning has the potential to contribute metals, oil and grease, solvents, phosphates, and suspended solids to the storm water conveyance system. Include in the project plans an area for washing/steam cleaning of vehicles and equipment. This area must be:

- a) Self-contained and/or covered, equipped with a clarifier, or other pretreatment facility, and properly connected to a sanitary sewer or other appropriately permitted disposal facility.
- 4) Properly Design Loading/Unloading Dock Areas Loading/unloading dock areas have the potential for material spills to be quickly transported to the storm water conveyance system. To minimize this potential, the following design criteria are required:
 - a) Cover loading dock areas or design drainage to minimize run-on and runoff of storm water.
 - b) Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.
- e. Parking Lots
 - 1) Properly Design Parking Area

Parking lots contain pollutants such as heavy metals, oil and grease, and polycyclic aromatic hydrocarbons that are deposited on parking lot surfaces by motor-vehicles. These pollutants are directly transported to surface waters. To minimize the offsite transport of pollutants, the following design criteria are required:

- a) Reduce impervious land coverage of parking areas.
- b) Infiltrate or treat runoff.
- 2) Properly Design To Limit Oil Contamination and Perform Maintenance Parking lots may accumulate oil, grease, and water insoluble hydrocarbons from vehicle drippings and engine system leaks:
 - a) Treat to remove oil and petroleum hydrocarbons at parking lots that are heavily used (e.g. fast food outlets, lots with 25 or more parking spaces, sports event parking lots, shopping malls, grocery stores, discount warehouse stores).
 - b) Ensure adequate operation and maintenance of treatment systems particularly sludge and oil removal, and system fouling and plugging prevention control.

4. Waiver

A Permittee may, through adoption of an ordinance, code, or other regulatory mechanism incorporating the treatment requirements of the Design Standards, provide for a waiver from the requirement if impracticability for a specific property can be established. A waiver of impracticability shall be granted only when all other Structural or Treatment Control BMPs have been considered and rejected as infeasible. Recognized situations of impracticability include, (i) extreme limitations of space for treatment on a redevelopment project, (ii) unfavorable or unstable soil conditions at a site to attempt infiltration, and (iii) risk of ground water contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is less than 10 feet from the soil surface. Any other justification for impracticability must be separately petitioned by the Permittee and submitted to the appropriate RWOCB for consideration. The RWOCB may consider approval of the waiver justification or may delegate the authority to approve a class of waiver justifications to the RWOCB EO. The supplementary waiver justification becomes recognized and effective only after approval by the RWQCB or the RWQCB EO. A waiver granted by a Permittee to any development or redevelopment project may be revoked by the RWQCB EO for cause and with proper notice upon petition.

5. Limitation on Use of Infiltration BMPs

Three factors significantly influence the potential for storm water to contaminate ground water. They are (i) pollutant mobility, (ii) pollutant abundance in storm water, (iii) and soluble fraction of pollutant. The risk of contamination of groundwater may be reduced by pretreatment of storm water. A discussion of limitations and guidance for infiltration practices is contained in, *Potential Groundwater Contamination from Intentional and Non-Intentional Stormwater Infiltration, Report No. EPA/600/R-94/051, USEPA (1994).*

In addition, the distance of the groundwater table from the infiltration BMP may also be a factor determining the risk of contamination. A water table distance separation of ten feet depth in California presumptively poses negligible risk for storm water not associated with industrial activity or high vehicular traffic.

Site specific conditions must be evaluated when determining the most appropriate BMP. Additionally, monitoring and maintenance must be provided to ensure groundwater is protected and the infiltration BMP is not rendered ineffective by overload. This is especially important for infiltration BMPs for areas of industrial activity or areas subject to high vehicular traffic [25,000 or greater average daily traffic (ADT) on main roadway or 15,000 or more ADT on any intersecting roadway]. In some cases pretreatment may be necessary.

6. Alternative Certification for Storm Water Treatment Mitigation

In lieu of conducting detailed BMP review to verify Structural or Treatment Control BMP adequacy, a Permittee may elect to accept a signed certification from a Civil Engineer or a Licensed Architect registered in the State of California, that the plan meets the criteria established herein. The Permittee is encouraged to verify that certifying person(s) have been trained on BMP design for water quality, not more than two years prior to the signature date. Training conducted by an organization with storm water BMP design expertise (e.g., a University, American Society of Civil Engineers, American Society of Landscape Architects, American Public Works Association, or the California Water Environment Association) may be considered qualifying.

Appendix F – Proposed City Budget for SWMP

Storm Water Management Plan Budget (specific to storm water quality management permit compliance)

REQUIREMENTS	03-04	04-05	05-06	06-07	07-08
Public Education and Outreach*	\$15,500	\$17,000	\$16,200	\$17,000	\$18,500
Public Involvement and Participation	\$8,750	\$8,900	\$6,100	\$6,300	\$6,550
Illicit Discharge Detection and Elimination	\$9,000	\$6,700	\$7,000	\$7,250	\$7,525
Construction Site Runoff Controls	\$12,500	\$6,200	\$6,500	\$6,700	\$7,900
Post-Construction Runoff Controls	\$4,500	\$3,875	\$4,000	\$4,125	\$4,250
Pollution Prevention and Good Housekeeping	\$21,000	\$12,900	\$13,400	\$14,000	\$14,500
Municipal Operations and Maintenance Program	\$ \$52,500	\$47,775	\$48,200	\$45,675	\$47,775
Total Costs per Fiscal Year	\$123,750	\$103,350	\$101,400	\$101,050	\$107,000

*TCAG Budget for fliers printed in 2004/2005 was \$10,000 noted as a portion of the total above.