

**TOWN OF GILBERT
STORM WATER MANAGEMENT
PROGRAM**

**Prepared for:
TOWN OF GILBERT**

**URS Job No. E1-00001832.00
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LIST OF ACRONYMS AND ABBREVIATIONS

ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
AMWUA	Arizona Municipal Water Users Association
AZPDES	Arizona Pollutant Discharge Elimination System
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CIP	Capital Improvement Project
CWA	Clean Water Act
EMF	East Maricopa Floodway
EPA	Environmental Protection Agency
FCDMC	Flood Control District of Maricopa County
FR	Federal Register
GIS	Geographic Information System
GMC	Gilbert Municipal Code
HHW	Household Hazardous Waste
HOA	Homeowners Association
IC	Illicit Connection
ID	Illicit Discharge
IGA	Interagency Agreement
IPP	Industrial Pretreatment Program
MS4	Municipal Separate Storm Sewer System
National Register	National Register of Historic Places
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
P2	Pollution Prevention
PSA	Public Service Announcement
RWCD	Roosevelt Water Conservation District
SHPO	State Historic Preservation Office
SIU	Significant Industrial User
SOP	Standard Operating Procedure
SPRR	Southern Pacific Railroad
SRP	Salt River Project
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TMDLs	Total Maximum Daily Loads
Town	Town of Gilbert
TSS	Total Suspended Solids

DEFINITIONS

AZPDES	Arizona Pollutant Discharge Elimination System. Arizona Department of Environmental Quality's version of the NPDES program.
BMPs	Best Management Practices. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to storm water discharges.
Illicit Connection	Any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
Illicit Discharge	Any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges that are otherwise exempt by federal, state or local regulations.
MS4	Municipal separate storm sewer system. This is different from a combined sanitary and storm sewer system.
NOI	Notice of Intent. Form submitted to be covered under the general permit
NPDES	National Pollutant Discharge Elimination System. A regulatory framework and permitting scheme to enforce compliance with the Clean Water Act.
Phase II	In 1990, Phase I of the Storm Water program regulated industry, construction projects >5 acres, and large municipalities (Scottsdale, Tempe, Glendale, Mesa & Tucson). The second phase of the storm water regulation expanded the regulated community to include MS4s and small construction sites (1-5 acres).
SWPPP	Storm Water Pollution Prevention Plan. A plan required to be prepared by industries and construction projects filing for a storm water permit. The purpose of the SWPPP is to eliminate the contribution of pollutants to storm water runoff.

Storm Water Management Program Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations. In addition, I certify that the permittee will comply with all terms and conditions stipulated in General Permit No. AZG2002-002 issued by the Director.

Lonnie Frost
Public Works Director
Town of Gilbert

Authorized Representative

All reports required by the permit and other information requested by the permitting authority or authorized representative of the permitting authority may be signed by the Town of Gilbert Environmental Program Administrator, as the duly authorized representative.

Lonnie Frost
Public Works Director
Town of Gilbert

1.0 INTRODUCTION

1.1 URBAN RUNOFF

Runoff from storm events is part of the natural hydrologic process. Rainwater that does not infiltrate into the ground, evaporate, or get intercepted by plants will flow by the force of gravity into water bodies such as lakes, streams, rivers, and washes. As runoff travels to receiving waters, naturally vegetated depressions and rills slow the water and remove some pollutants and sediments. In urban settings, however, natural vegetation and topography have been altered, graded, or paved and storm water is diverted into storm drain pipes or other diversionary features. When the drainage pattern of a watershed is so altered, flows increase in concentration and velocity and can pick up sediments and pollutants from land surfaces at an increased rate. Storm water that flows through urbanized areas to receiving waters is called “urban runoff.”

Urban runoff may carry a wide range of pollutants including nutrients, trash and debris, sediments, heavy metals, pathogens, petroleum hydrocarbons, and synthetic organics such as pesticides. Because urban runoff does not originate from a distinct “point” source (e.g., an industrial discharge pipe), it is also often referred to as “non-point” source pollution. These pollutants in urban runoff could negatively impact the Town of Gilbert (herein “the Town” or “Gilbert”) on many levels. Urban runoff can alter the physical, chemical, and biological characteristics of impacted water bodies and associated ecosystems.

In addition to the pollutants picked up by storm water runoff before it enters a storm drainage system, studies have shown that discharges from a storm drainage system often include wastes and wastewater from non-storm water sources. These non-storm water sources are referred to as “illicit discharges.” These discharges are “illicit” because such releases are usually prohibited by law and municipal storm drainage systems are not designed to accept, process, or discharge such wastes. Illicit discharges can include sanitary wastewater flowing to the storm drainage system through illegal connections; effluent from septic systems; car wash, laundry, and other industrial wastewaters; improper disposal of automotive and household wastes, such as used motor oil and pesticides; and spills from roadways. Illicit discharges enter the system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration through cracked piping, spills collected by drain outlets, and paint or oil dumped directly into the drain). The result is untreated discharges that may contribute pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria into receiving water bodies. These same sources of pollution also may impact the underlying aquifer.

In response to the impact of non-point source discharges on water quality, the U.S. Environmental Protection Agency (EPA) has developed specific sets of regulations to address the problem.

1.2 APPLICABILITY

In 1972, Congress amended the Clean Water Act (CWA) to prohibit the discharge of any pollutant to waters of the United States from a point source unless the discharge is authorized by an National Pollutant Discharge Elimination System (NPDES) permit. Initial efforts to improve water quality under the NPDES program primarily focused on reducing pollutants in industrial process wastewater and municipal sewage. These discharge sources were easily identified as being responsible for poor water quality. As pollution control measures for industrial process wastewater and municipal sewage were implemented and refined, it became evident that other sources of water pollution were also a significant cause of water quality impairment. Causes were traced to storm water runoff.

In 1987, Congress again amended the CWA to require implementation, in two phases, of a comprehensive national program for addressing storm water discharges. Phase I required NPDES permits for storm water discharge from a large number of priority sources including medium and large Municipal Separate Storm Sewer Systems (MS4s) and several categories of industrial activity, including construction activity that disturbed 5 or more acres of land. The second phase of the storm water program requires permits for storm water discharges from certain small MS4s and construction activity generally disturbing between 1 and 5 acres. Phase II remained to be further clarified by future EPA analysis and decisions.

EPA provided this clarification in August 1999 through the proposal of a draft final rule that addressed the Phase II aspects of the NPDES storm water program. Of relevance to the Town was the application of the program to small MS4. Phase II municipalities were defined as those not included in the Phase I program but located within a U.S. Census Bureau “Urbanized Area.” In practical terms, this category includes most cities and towns with a population between 10,000 and 100,000 by the 1990 Census. EPA also reserved the authority for the permitting agency to designate Phase II municipalities based upon other storm water impacts on waters of the United States. On December 8, 1999, the Phase II Final Rule was published in the *Federal Register* (Vol. 64, Number 235, p. 68722 to 68770).

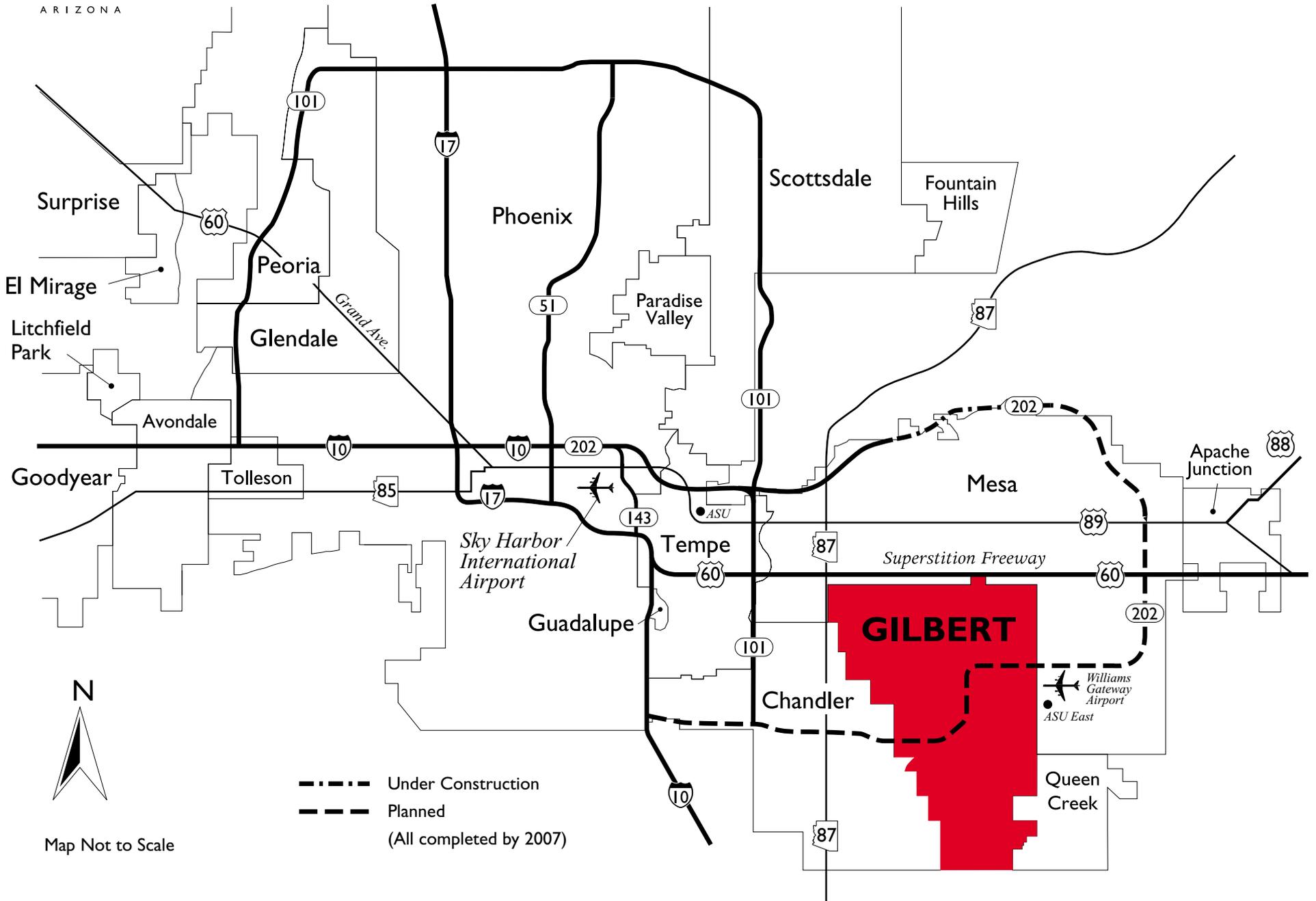
On Dec. 5, 2002, Arizona became one of 45 states with authorization from EPA to operate the NPDES Permit Program (Section 402 of the Clean Water Act (CWA)) on the state level. In Arizona, this program is called AZPDES, which stands for Arizona Pollutant Discharge

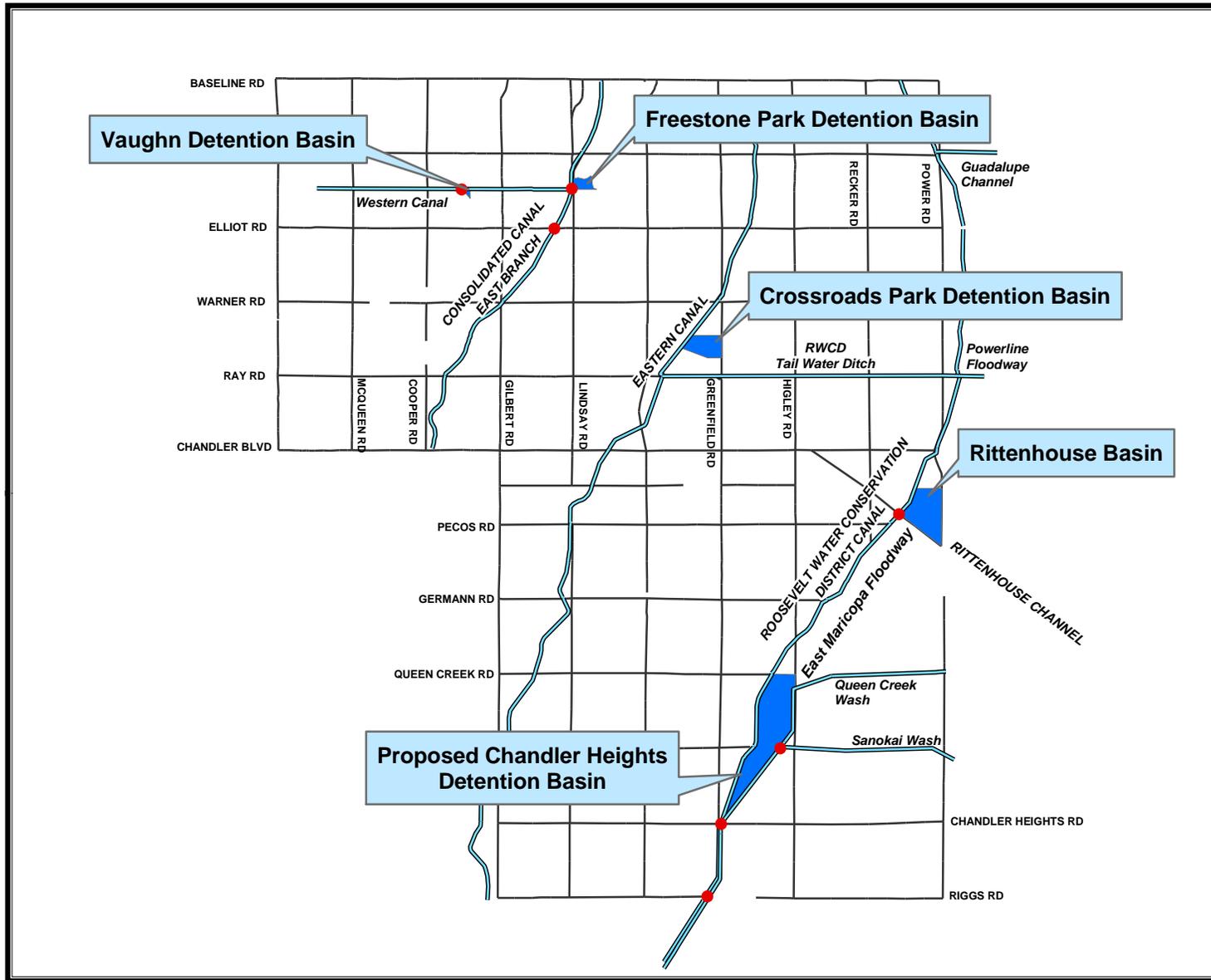
Elimination System. An AZPDES permit is required for any point source discharge of pollutants to a water of the United States. Because storm water runoff can transport pollutants to either a municipal separate storm sewer system or to a water of the United States, permits are required for those discharges. A draft of the Small MS4 General Permit was published in the Arizona Administrative Register on September 27, 2002. A public meeting to discuss the draft general permit was held on October 16, 2002. Arizona Department of Environmental Quality (ADEQ) issued the final Small MS4 General Permit on December 19, 2002. Therefore, the NOI, Storm Water Management Program, and annual reports will be submitted to ADEQ.

Non-compliance with the Phase II Final Rule carries potentially serious consequence under state and federal law. Enforcement actions and penalties are discussed in the CWA sections 309, 504 and 505 and under Arizona law.

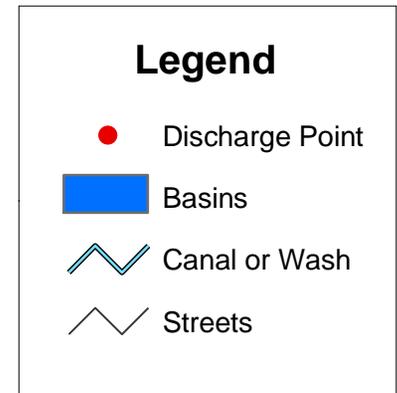
The Phase II Final Rule applies to the Town because Gilbert is within the Phoenix urbanized area, was designated for permit authorization by ADEQ, and discharges storm water to waters of the United States (Figures 1-1 and 1-2). Storm water originating within the Town may discharge to Salt River Project (SRP) canals or the East Maricopa Floodway (EMF). The canals are all considered waters of the United States, by judicial decision. Total Maximum Daily Loads (TMDLs) have not been established for these waters. Discharge points include the following:

- **Crossroads Park** is a retention basin located along the north side of the Southern Pacific Railroad (SPRR) tracks at the Eastern Canal, west of Greenfield Road. Crossroads Park was constructed by the Town of Gilbert and Flood Control District of Maricopa County (FCDMC) to reduce flooding of the downtown area. Crossroads Park is approximately 40 acres in size and stores 450 acre-feet of water which can be manually pumped into the Roosevelt Water Conservation District (RWCD) tail water ditch after a significant storm event. The park is an example of a tiered, multi-use facility composed of a lake, baseball and soccer fields, a playground, and a dog park. The elevated SPRR embankment directs surface water runoff northwesterly to the Crossroads Park retention basin west of Greenfield Road.
- **Vaughn Avenue Detention Basin** is located east of the intersection of the SPRR tracks and Western Canal. The park was constructed by the Town of Gilbert and FCDMC to reduce flooding of the downtown area. After a significant storm event, the detention basin can be manually pumped into SRP's 9.5 lateral/Western Canal. The lateral flows into SRP's Consolidated Canal at Lindsay Road, approximately 0.5 mile south of Guadalupe Road.





**Figure 1-2
Discharges to
Waters of the U.S.**



- **Freestone Park** is located southeast of the intersection of Lindsay and Juniper roads. The park was constructed by the Town of Gilbert. After a significant storm event, the detention basin can be manually pumped into SRP's 9.5 lateral/Western Canal.
- Inlets at the street curb discharge directly into the SRP Consolidated Canal from Elliot Road, west of Lindsay Road, where the canal crosses beneath the roadways, and from Lindsay Road, south of Elliot.

Storm water in the southwestern portion of the Town discharges to the EMF, which eventually terminates at the Gila River, which is a water of the United States. The EMF was constructed by the U.S. Soil Conservation Service along the east side of the RWCD Canal to serve as a regional storm water outfall for eastern Maricopa County. The EMF is now owned and operated by FCDMC and serves as the primary outfall and flood conveyance from three watersheds: Buckhorn-Mesa, Apache Junction Gilbert, and Williams-Chandler. The EMF starts at Brown and Greenfield Roads (Mesa), parallels the RWCD Canal, and extends more than 27 miles across the Maricopa County southern boundary into Pinal County, across the Gila River Indian Community to its outfall at the Gila River. The EMF discharges more than 15,000 cubic feet per second in a 100-year storm event. The floodway is mostly constructed as a compacted earthen trapezoidal channel, ranging from 150 to 300 feet in width and 8 to 12 feet in depth. A stretch of approximately 1 mile in length located along Williams Gateway Airport is concrete-lined, as is another approximately 0.5-mile section of the floodway in Pinal County. The following outfalls discharge into the EMF:

- **Guadalupe Channel** collects and conveys drainage from Mesa and unincorporated Maricopa County. It discharges into the EMF south of Guadalupe Road, within the Mesa city limits. (outfall not shown on Figure 1-2)
- **Powerline Floodway** collects and conveys drainage from Mesa, Williams Gateway Airport, and unincorporated Maricopa County. It discharges to the EMF near Ray Road, within the Mesa city limits. (outfall not shown on Figure 1-2)
- **Rittenhouse Road Channel** runs northwesterly along the north side of the SPRR and Rittenhouse Road. It collects and conveys drainage from Mesa, Queen Creek, Williams Gateway Airport, and unincorporated Maricopa and Pinal Counties. The channel passes through a sedimentation basin (Rittenhouse Basin) prior discharges into the EMF, within Gilbert.

- **Queen Creek Wash** is an ephemeral stream and is dry except after significant rainfall. It is a major conveyance for a large watershed that includes the Town of Queen Creek and extends into northern Pinal County. Queen Creek Wash receives sheet runoff from Gilbert residential and undeveloped properties located in the immediate vicinity of the wash. Queen Creek is a well-defined natural channel that originates in the Superstition Mountains in north Pinal County and flows southwesterly, passing through Whitlow Reservoir and the Sanoqui Detention Dike before continuing westerly through Maricopa County and discharging into the EMF, just north of Chandler Heights Road, in Gilbert. Queen Creek channel is owned by RWCD and is used for groundwater recharge upgradient of Gilbert. Active and abandoned mining pits located adjacent to or within Queen Creek Wash (Mesa or unincorporated Maricopa/Pinal counties) continues to alter flow path, detain flow and contribute to the sediment load of Queen Creek Wash.
- **Sanokai Wash** is also an ephemeral stream and is dry except after significant rainfall. It is a major conveyance for a large watershed that includes the Town of Queen Creek and extends into Pinal County. Sanokai Wash receives sheet runoff from Gilbert residential and undeveloped properties located in the immediate vicinity of the wash. Sanokai Wash consists of two branches, both originating in the Santan Mountains. The wash continues northwesterly through the Town of Queen Creek before discharging into the Queen Creek Wash, approximately along the Ocotillo Road alignment, just east of the EMF. After their confluence, Queen Creek/Sanokai Wash passes through a sedimentation basin (Chandler Heights Detention Basin) prior to discharging into the EMF. FCDMC has proposed expansion of the sedimentation basin.

Drainage channels along Chandler Heights Road and Riggs Road also drain into the EMF.

1.3 EXISTING CONDITIONS

The geography of the Town of Gilbert does not favor the accumulation and drainage of great volumes of storm water. The Town is located astride a saddle upon outwash plains of South Mountain to the west and the Santan Mountains to the south. Rainfall falling within Gilbert drains naturally from east to west in a shallow, sheet flow fashion. Natural drainage ways have been obliterated with development of irrigated agricultural fields and residential development. Currently, most surface flow in Gilbert is controlled by the Town storm water diversion system of street inlets and scuppers, detention basins, and dry wells.

Major manmade drainage boundaries include the Consolidated Canal, Eastern Canal, RWCD Canal, Superstition Freeway (State Highway 60), SPRR and EMF. The area lacks a natural

outfall. Runoff accumulates along the canals and creates ponding areas. As the water level rises, accumulated runoff flows southerly along the canal banks. In some locations, runoff flows into irrigation canals and then over tops to the downstream side. The proposed Santan freeway (Loop 202) will block westerly drainage within the area from Lindsay Road to Higley Road. The preliminary drainage design for the freeway included collector channels and basins to intercept the runoff, retain the flows, and drain westerly along the freeway to the Gila Floodway. The Arizona Department of Transportation (ADOT) is responsible for managing the storm water discharge associated with the freeway.

2.0 OVERVIEW OF NPDES PHASE II FINAL RULE

The storm water Phase II Final Rule is codified within Title 40, Code of Federal Regulations (CFR) Part 122 and has three major components, each with distinct requirements, affecting three types of entities. These include regulated small MS4s, small construction activity, and industrial activity. The focus of this document is compliance in accordance with the Phase II Final Rule as published in the *Federal Register* (Vol. 64, Number 235, p. 68722 to 68770) on December 8, 1999, for the regulated small MS4s drainage system operated by the Town.

The goals of this program are as follows:

- reduce the discharge of pollutants to the maximum extent practicable (MEP)
- protect water quality
- satisfy appropriate water quality requirements of the CWA

2.1 REGULATED SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

A certain subset of operators of small MS4s (primarily those located in urbanized areas) are required to develop and implement a Storm Water Management Program (SWMP) to meet their goals for storm water runoff from the jurisdiction serviced by the MS4. The SWMP must include the development and implementation of Best Management Practices (BMPs) and measurable goals for the following six minimum control measures:

1. public education and outreach
2. public participation and involvement
3. illicit discharge detection and elimination
4. construction site runoff control
5. post-construction runoff control
6. pollution prevention/good housekeeping for municipal operations

2.2 PHASE II FINAL RULE IMPLEMENTATION SCHEDULE

Key dates applicable to the Phase II Final Rule affecting the Town range from December 2002 through December 2012. Key dates are listed in Table 2-1 and actual dates for certain deadlines will be dependent upon the actual date upon which the permit is issued.

Table 2-1. Phase II Final Rule Implementation Schedule

ACTIVITY	DEADLINE
NPDES permitting authority issued general permits for regulated small MS4s and small construction activity	December 19, 2002
Operators of regulated small MS4s (including Town of Gilbert) must submit NOI for coverage under the General Permit and submit a SWMP	By March 10, 2003
Small construction activities (1 acre or more) must apply for permit coverage	By March 10, 2003 or prior to beginning construction (if after March 10, 2003)
Annual program review and report documenting compliance	By September 30, each year of the permit term
The regulated small MS4s must fully implement their storm water management programs	By December 19, 2007
Permit Renewal	By December 2007
Re-evaluation of the Phase II Final Rule small MS4s regulations by EPA	By December 2012

This SWMP must be submitted with the NOI to obtain permit coverage under the Phase II Final Rule and will become a part of the Town's Phase II NPDES permit when it is issued. This SWMP has been developed in accordance with the guidelines for the development, implementation, and enforcement of a storm water management program as set forth in 40 CFR 122.34, a copy of which is included as Appendix A, and the ADEQ NPDES Storm Water General Permit for MS4s, a copy of which is included as Appendix B.

2.3 ANNUAL REPORTING

Coverage under the Phase II Final Rule requires that the operator of a regulated small MS4 comply with program review and reporting requirements. An annual storm water program review and update (as needed) will be conducted in conjunction with preparation of the annual report. The Town's reporting will be consistent with the published rule. This reporting will include the following:

- the status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the statutory goal

of reducing the discharge of pollutants to the maximum extent practicable and protecting water quality, and the measurable goals for each of the minimum control measures

- results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP, if any
- any changes made to the SWMP since the last annual report and a summary of the storm water activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule)
- proposed changes to the storm water management program, including changes to any BMPs or any identified measurable goals that apply to the program elements
- a description of BMPs to be implemented within new areas annexed over the past year that are located within the regulated boundaries of the MS4
- a description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs
- notice of relying on another governmental entity to satisfy permit obligations, if applicable

Records required by the NPDES permitting authority will be retained for a period of at least three years and made accessible to the public at reasonable times during regular business hours. If requested to do so, the Town will make records available to the permitting authority.

3.0 TOWN OF GILBERT STORM WATER MANAGEMENT PROGRAM

A SWMP is required in accordance with 40 CFR 122.34(a). In the development of this SWMP, it was important to conduct an assessment of the community needs with regard to the issue of storm water runoff. Information was gathered and research was conducted to identify resources, problems, opportunities, and priorities for improvement of existing programs and implementation of new programs. These recommendations are collectively referred to herein as BMPs. As Gilbert is a community that is experiencing rapid growth, clearly the construction management component is key to this program. However, less obvious sources of pollution, such as illicit discharge, were also carefully considered. With these factors in mind, programs that are presently implemented within the municipal framework have been assessed and were used as a starting point from which this program has been developed. BMPs, both used presently and those that are planned, are identified herein and evaluation methods are recommended.

Overall Departmental Responsibilities

The Town has assigned specific areas of responsibility to existing departments within this SWMP. These responsibilities have been assigned based upon two criteria – the existence of that department/function within the present Town infrastructure, and the scope of the activities currently conducted within that department, division, or section. Table 3-1 provides the outline of responsibilities.

Table 3-1. Departments Responsible for SWMP Implementation

Division/Section	Current Activity	Potential Future Role/ Responsibility for SWMP Implementation
Public Works Department – Field Operations Division		
Wastewater	Detection of illicit connections and illicit discharges from commercial and industrial sources; literature/information to businesses on proper disposal of liquid wastes for the sanitary drainage.	Industrial and Commercial Program Elements (post-construction inspections and education) similar to established programs expanded to include the storm drainage system; pollution prevention (P2) opportunities specific to Wastewater Section, Illicit Connection and Discharge Program

Division/Section	Current Activity	Potential Future Role/ Responsibility for SWMP Implementation
Streets	Maintain scuppers and catch basins to avoid overflows that could affect surface water quality; perform annual cleaning of catch basins; investigate complaints of illegal dumping and connections; Street Sweeping Program; right-of-way and median maintenance programs.	Catch Basin Cleaning Program (improvements to existing program); Illicit Connection and Discharge Program (formal training); Dry Well inspection program; Run-off from medians/ pesticide usage and control; P2 opportunities specific to Streets Section
Sanitation	Provide refuse and recycling services; organize household hazardous waste (HHW) drop-off days.	P2 opportunities specific to Sanitation Section; increased involvement in Public Education areas
Fleet Service	Public Works yard maintenance; equipment maintenance and repair BMPs	P2 opportunities specific to Fleet Service Section
Building Maintenance	Provide building-related repairs on a timely basis; maintenance of on-site storm water controls (dry wells, retention basins, gutters, etc.)	P2 opportunities specific to building maintenance; P2 education of building tenants (providing literature, info, etc.)
Environmental Programs	Assist all divisions with educational and outreach efforts on recycling, refuse collection and disposal; industrial waste issues; training.	Coordination of SWMP components; Public Education and Outreach Program; development of Municipal Operations BMPs
Public Works Department – Engineering Division		
Planning	Review new development and redevelopment projects including storm water impacts; recording of data onto as-built plans including storm water conveyances (retention basins, dry wells); conducts land development review	Design and construction of storm drain system improvements; transfer of as-built data to Town database system; storm drain plan development to coordinate storm drain water quality planning efforts locally and regionally; SWPPP review
Engineering		Prepare General Plan revisions and amendments; Post-construction activity / long-term maintenance program involvement; SWPPP program coordination

Division/Section	Current Activity	Potential Future Role/ Responsibility for SWMP Implementation
Inspections	Review erosion control plans for development; inspection of on-site improvements; complaint-driven inspections and enforcement	Construction site inspection program including storm water inspection checklists; post-construction inspections
Other Municipal Operations		
Fire Department	Respond to hazmat spills; inspection of Town facilities for proper storage and use of hazardous materials	Hazardous Materials Control Program; Industrial/Commercial Program
Parks and Recreation	Maintain pesticide and herbicide application program based on state guidelines; in-house training to town personnel on hazardous materials handling at Town facilities within their department	Program for parks, swimming pools, and public water bodies on pesticide /herbicide usage and storm water impact control.

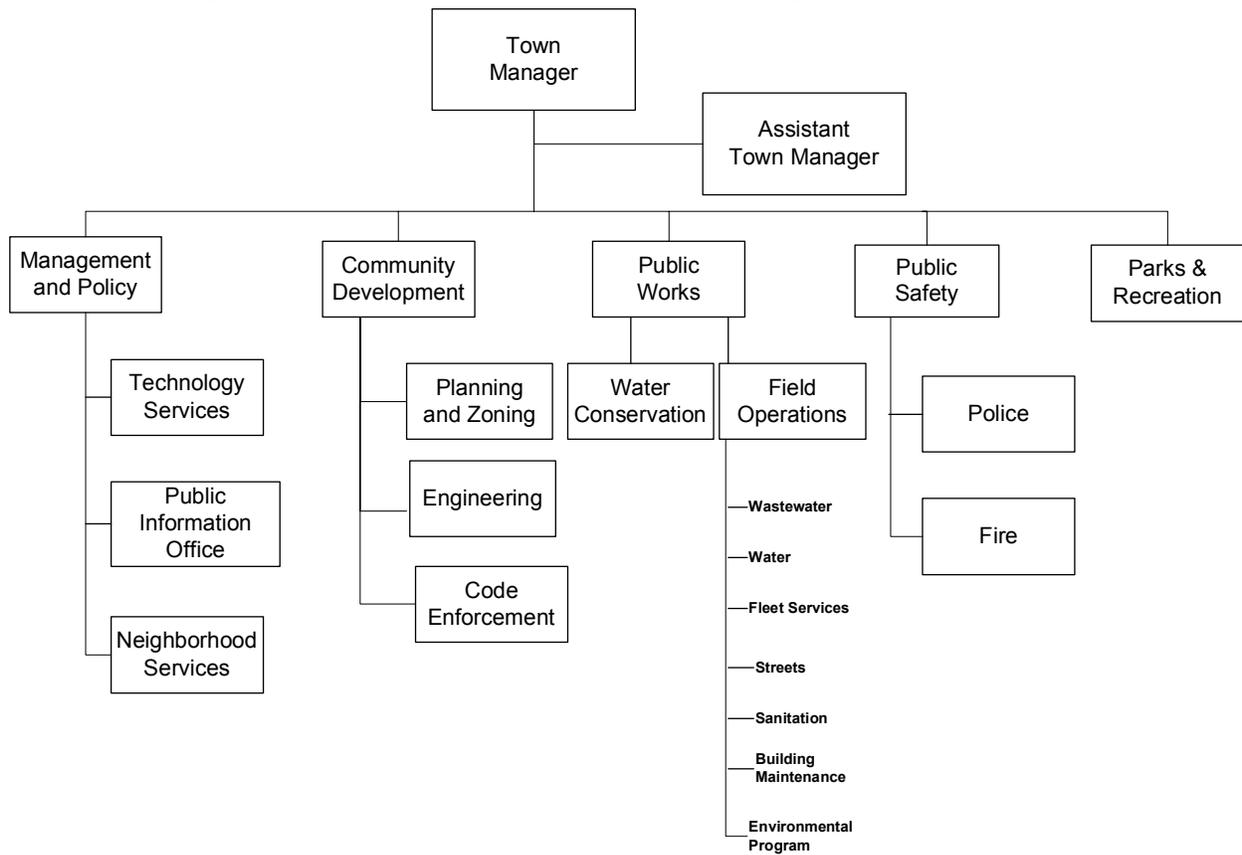
Overall Program Format

This program includes the six minimum control measures required by EPA under the Phase II Final Rule. Each of the six required minimum control measures includes a summary that outlines the EPA requirements for that component of the program. The summary is followed by specific BMPs, a table itemizing measurable goals and target start dates, and the implementing responsibility within the Town of Gilbert (Figure 3-1 shows the Town’s operations reporting chart). Following each BMP is a program description that describes the details of existing and new programs that are applicable to the BMP. Figure 3-2 outlines the minimum control measures and associated BMPs that are discussed in Sections 3.1 through 3.6.

Section 4.0 describes the supporting roles of other agencies that may have an impact on storm water and storm water quality within the Town of Gilbert.

Names and titles of persons responsible for implementing the various elements are listed in Section 5.0.

Figure 3-1 Operations Reporting Chart



<p>PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS</p>	<ul style="list-style-type: none"> 1.1 Household Hazardous Waste Program 1.2 Recycling Program 1.3 Educational Partnerships 1.4 Education/Outreach to Stakeholders 1.5 Curriculum for Schools and Teachers
<p>PUBLIC PARTICIPATION AND INVOLVEMENT</p>	<ul style="list-style-type: none"> 2.1 Public Review of the Storm Water Permit 2.2 Presentation for Stakeholder Meetings 2.3 Public Feedback
<p>ILLICIT DISCHARGE DETECTION AND ELIMINATION</p>	<ul style="list-style-type: none"> 3.1 Mapping of the Storm System 3.2 Ordinances and Policies 3.3 Inspections & Enforcement 3.4 Training of Employees
<p>CONSTRUCTION SITE STORM WATER RUNOFF CONTROL</p>	<ul style="list-style-type: none"> 4.1 Ordinances and Policies 4.2 Plans Review 4.3 Projects less than 1-acre 4.4 Inspections & Enforcement
<p>POST-CONSTRUCTION, DEVELOPMENT AND REDEVELOPMENT</p>	<ul style="list-style-type: none"> 5.1 Post Construction Control Program 5.2 Nonstructural and Structural BMPs 5.3 Ordinances and Policies 5.4 Long-term Operation and Maintenance Controls
<p>POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS</p>	<ul style="list-style-type: none"> 6.1 Street Sweeping Operations 6.2 Medians and Other Municipal Landscaped Areas 6.3 Storm Drain Inlet/Catch Basin and Line Cleaning 6.4 Storm Water Pollution Assessments of Municipal Operations 6.5 Best Management Practices for Municipal Operations 6.6 Public Swimming Pools 6.7 Repair and Maintenance Activities

Figure 3-2
Minimum Control Measures and Associated BMPs

3.1 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACTS

3.1.1 Introduction and in Accordance with 40 CFR 122.34(b)(1)

The purpose of public education is to inform the public and to encourage certain actions. Public education materials typically translate technical information into information the public can easily understand. An informed public will help support and comply with Gilbert's SWMP.

The goals of the public education program include the following:

- identify audiences to be targeted by educational and outreach programs
- produce and distribute educational materials to raise public awareness about storm water discharges to water bodies and steps the public can take to reduce pollutants
- identify potential partnership opportunities with other local municipalities
- provide a measurement of program progress

To eliminate duplication of BMPs, informing individuals and groups on how to become involved in the storm water program is covered in Section 3.2, Public Involvement and Participation.

The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.1.2 Best Management Practices and Measurable Goals

3.1.2.1 Household Hazardous Waste Program

BMP 1.1: Household Hazardous Waste Collection

Measurable Goals:	Target Date	Frequency
i. Expand the educational outreach program to include storm water issues.	October 2003	One time
ii. Post information on Town's web site.	October 2003	Annual update
iii. Hold a household hazardous waste collection event.	Annually	Once per year
iv. Advertise event to diverse audience.	Prior to event	Annually

Implementation Responsibility

Sanitation Superintendent, Environmental Program Administrator, Communication Division

Practice Description and Decision Process

The Town conducts annual “household hazardous waste collection days” whereby residents can dispose of unwanted hazardous materials in an easy, cost-effective, environmentally friendly manner by allowing the Town to manage the materials. Brochures have been designed to heighten awareness regarding the purpose and proper use of dry wells, household hazardous waste (HHW), and the use of less-hazardous alternative products. In addition to these collection days, the Public Works Department may participate in several annual events, including Gilbert Days, Earth Day, and Information Expo, where these brochures may be distributed. In addition to distributing brochures, the Town will, on occasion, place articles of relevance in the local newspaper or utility bills.

The HHW campaign can be used to further the efforts of the SWMP in the area of educating the public on the identification of hazardous materials and how these materials can enter the water cycle through storm water runoff and contribute to water pollution. There are specific materials, such as paints, fertilizers, and used motor oil, that are not always recognized by homeowners as pollution sources. The SWMP and HHW programs will support each other in terms of educating the public and in terms of reducing the amount of pollution resulting from improper disposal practices. Other examples of household pollution sources that are commonly overlooked by homeowners include car washing fluids, swimming pool or spa water disposal, silt from construction, and landscaping trimmings. Therefore, it is important that homeowners be educated about potential sources of pollution that may be generated and have the ability to impact water quality.

3.1.2.2 *Recycling Program*

BMP 1.2: Reduce, Reuse, and Recycle Campaign

Measurable Goals:	Target Date	Frequency
i. Expand the educational program to include storm water issues.	November 2003	One time
ii. Post information on Town’s web site.	November 2003	One time
iii. Advertise to diverse audience.	November 2003	Annually

Implementation Responsibility

Sanitation Superintendent

Practice Description and Decision Process

The Town of Gilbert has a curbside pick-up recycling program, as well as a residential battery and fluorescent lamp recycling program. These programs help inform people about which items to recycle, and includes a bulk waste and white goods pick-up component. The Reduce, Reuse, and Recycle campaign also has connections with urban runoff pollution prevention and will be used as a platform to further inform the public on storm water issues and proper management of household waste materials. The Reduce, Reuse, and Recycle program is also taught in local schools, at the request of teachers.

3.1.2.3 Educational Partnerships

BMP 1.3: Educational Partnerships

Measurable Goals:	Target Date	Frequency
i. Continued participation in regional working groups on municipal storm water issues.	July 2003	Ongoing
ii. Annual storm water update presentation for the Town's Environmental Compliance Committee.	May 2003	Annually

Implementation Responsibility

Environmental Program Administrator

Practice Description and Decision Process

Gilbert has partnered with numerous municipalities for the conservation and protection of water resources in the Phoenix metropolitan area including the Gila, Verde, and Salt River watersheds. These partnerships are the basis of developing regional programs to address storm water runoff pollution and to develop regional educational campaigns. The Arizona Municipal Water Users Association (AMWUA) is composed of the Town of Gilbert and the cities of Chandler, Mesa, Glendale, Peoria, Phoenix, Scottsdale, and Tempe and is dedicated to conserving and protecting the water resources in Arizona. Currently, this group does not address urban runoff pollution. As the population in the Phoenix metropolitan area grows, so does the need to protect regional water

resources. Developing partnerships with neighboring municipalities will maximize available resources and is logical in consideration of the fact that the Gila, Verde, and Salt River watersheds are impacted by communities in the Phoenix metro area.

All of the above-mentioned AMWUA municipalities were represented at a June 14, 2001 meeting hosted by FCDMC to discuss regional approaches to storm water quality enhancement and regional approaches to public education. Gilbert is committed to continuing to work with local municipalities to discuss and develop regional approaches to public education. The regional approach to public education may provide an opportunity to pool money for multi-media campaigns (e.g., billboards, cable television) and allows the conveyance of a uniform message regarding storm water issues.

Gilbert also participates in the Arizona Municipal Storm Water Permittee Coalition and Municipal Environmental Managers group. These groups discuss coordinating efforts related to storm water issues including outreach and education, as well as other environmental issues that affect municipalities.

In addition to the regional partnerships, the Town has developed an internal Environmental Compliance Committee that includes representatives from the Public Works Department, Fire Department, Building Department, Planning Department, Town Manager's Office, Finance Department, and Parks Department. Each department on the committee has resources and/or programs that are suitable for expansion to cover specific storm water quality-related issues. The Fire Department will continue to be used to address hazardous materials handling and storage. The Code Compliance Section of the Building Department will be chartered with educating the public on code changes and modifying existing codes to address associated storm water quality issues. Outreach programs will be expanded to include education of the public regarding storm water quality issues associated with neighborhood development or re-development. The Parks Department will assist in educating the public through signage in parks, and by incorporating storm water quality educational components into existing programs.

The effectiveness of this BMP will be measured by the number of storm water-related classes, meetings, and hours the Environmental Program staff have attended annually. As the program matures, the number of classes, meetings, and hours are expected to decrease. However, this decrease does not reflect a decrease in effectiveness of the BMP. At a minimum, each Environmental Program staff member will be required to attend one storm water-related class or meeting per year to keep current.

3.1.2.4 Education/Outreach to Stakeholders

BMP 1.4: Distribution of Educational Materials

Measurable Goals:	Target Date	Frequency
i. Develop and distribute at least one educational material for small business owners.	September 2003	One time
ii. Develop and distribute at least one educational material for restaurants.	December 2003	One time
iii. Develop and distribute at least one educational material for agricultural farmers.	March 2004	One time
iv. Develop and distribute at least one educational material for homeowner associations (HOAs).	August 2003	One time
v. Develop and distribute at least one educational material for developers.	April 2003	One time
vi. Develop and distribute at least one educational material for construction industry.	April 2003	One time
vii. Develop and distribute at least one educational material for recreational water users.	January 2004	One time
viii. Develop and distribute at least one educational material for general public (in English).	November 2003	One time
ix. Develop and distribute at least one educational material for general public (in Spanish).	November 2003	One time
x. Develop and distribute at least one educational material for each significant commercial and industrial segment (total of 5) within Gilbert.	December 2003	One time
xi. Develop and distribute at least one educational material for residents on septic systems.	October 2003	One time

Implementation Responsibility

Environmental Program Administrator, Wastewater Superintendent, Sanitation Superintendent, Code Compliance Administrator, Neighborhood Services Administrator, Engineering Manager, Communication Division

Practice Description and Decision Process

Gilbert's urban runoff management program will affect many different people. These stakeholders include residents, businesses, recreational users of water resources, and construction projects among others. Stakeholder groups, the approximate number within each group expected to be reached (in parentheses), and applicable educational information that have been identified include the following:

- ***Small Businesses Owners (100)***: mop water disposal, parking lot management, outdoor hazardous materials storage
- ***Restaurants (92)***: mop water disposal, restaurant grease disposal, parking lot management
- ***Agricultural Farmers (3)***: runoff and erosion control
- ***Homeowner Associations (128)***: private dry well management, neighborhood management, landscaping practices, pool maintenance practices, and retention area maintenance
- ***Development Community (6)***: BMPs for construction and landscaping
- ***Construction Activity (95)***: illegal dumping of construction wastes, silt management, BMPs for construction
- ***Recreational Water Users (14 communities)***: (e.g., Diamond Point – water skiing community) inform communities of the sources of the urban lake water, maintenance of urban lakes, storm water overflow management, BMPs for urban lakes
- ***General Public (35,400 households)***: automotive maintenance and washing, home maintenance, painting, disposal of swimming pool water, pool maintenance practices, landscape maintenance, irrigation, weed and pest control, fertilization, yard debris, pet waste disposal, illegal dumping, and participation in the storm water program

The Town is committed to the development of at least one source of education or outreach specifically geared towards each identified stakeholder group including commercial, industrial, and institutional facilities. One informational brochure could be developed for each topic. Industry-specific fact or “tip” sheets may be developed for each industry or business line identified that has the potential to impact storm water. The Town’s business registration database may be used to identify small businesses and the significant industries within the Town of Gilbert.

The Town may use materials previously developed by local or state governments, EPA, environmental public interest groups, or trade organizations. The material needs to be sensitive to local situations and issues. If the existing information is not relevant or not specific enough, materials will be developed to inform the community about storm water and non-point source pollution. Information will be presented in a non-technical way, where appropriate, using terms the general public can easily understand. Once the materials have been developed and distributed, additional copies of the materials will be made available in hard copy and/or electronically.

Topics for inclusion within the developed educational materials (newsletters, fact sheets, brochures) may include proper disposal of unwanted items, storm drain “do’s” and “don’ts,” and definitions of such key terms as aquifer, water table and recharge area. Also, a discussion on the relationship between storm water, dry wells, the aquifer, and water supply could be helpful. A campaign that focuses on the education of the public regarding the impact of their activities on storm water quality will be developed.

Other non-traditional materials may include refrigerator magnets, bumper stickers, and posters.

A variety of distribution methods may be used in order to reach different stakeholders. Some methods of distribution that may be used include the following:

- **Mail materials.** Mail brochures and newsletters to a stakeholder mailing list.
- **Post flyers.** Post flyers in community areas such as libraries and community centers with information on how to learn more about the storm water management program.
- **Distribute door hangers.** Distribute door hangers to residents with information on how to learn more about the storm water management program.
- **Develop storm water web page.** Include information on Gilbert’s SWMP and steps that can be taken to minimize pollution on the current Town of Gilbert web site.

- **Expand telephone response system.** Allow citizens to ask questions as well as report polluters.
- **Develop public service announcements (PSAs).** Describe the purpose of the SWMP and how people can learn more. PSAs can be placed on television, radio, or at local movie theaters. In addition, the opportunity may exist to aggregate funding and reach larger audiences through local television or billboards.
- **Produce a video.** The video could show storm drains and examples of people properly disposing of waste. It could include interviews with Town officials and residents, and be available for group presentations or for presentation on a local public access channel.
- **Compile a Press kit.** Develop media releases and fact sheets to help the media develop articles and help share information with the community.
- **Use existing outreach tools.** Distribute information with the residents' water bill as well as in brochure racks at public facilities.
- **Alternative distribution.** To reach diverse populations, translate some materials into Spanish (since Hispanics account for largest minority segment within Gilbert, or approximately 12 percent of the population, according to the 2000 U.S. Census) or make available in alternate formats for persons with disabilities.
- **Build partnerships.** Encourage other organizations to “spread the word.” Potential partners are businesses, other agencies, civic organizations, and environmental organizations. Several local high schools sponsor environmental clubs.
- **Water workshops.** Hold workshops to provide an opportunity to educate citizens of water-related issues within the Town of Gilbert. It also may provide an opportunity to give “hands on learning” through field trips and displays.

The effectiveness of this BMP will be measured by the development and distribution of materials to targeted audiences.

3.1.2.5 Curriculum for Schools and Teachers

BMP 1.5: Curriculum for Schools & Teachers

Measurable Goals:	Target Date	Frequency
i. Develop an educational packet for elementary school-age children.	June 2005	One time
ii. Distribute packets to each of the 23 elementary schools.	September 2005	Annually
iii. Develop an educational packet for high school-age school children.	June 2006	One time
iv. Distribute packets to each of the three high schools.	September 2006	Annually

Implementation Responsibility

Environmental Program Administrator

Practice Description and Decision Process

Public education on storm water eventually will involve the schools. Studies have shown that an effective method of educating a community is by educating children. Teaching children can also benefit adults because the information can be shared with parents at home. Gilbert will develop age-appropriate curricula for schools. Some school outreach activities may include field trips, assembly programs, or science experiments. Approximately 780 school children are expected to be reached each year.

The effectiveness of this BMP will be measured by the development and distribution of these materials.

3.2 PUBLIC PARTICIPATION AND INVOLVEMENT

3.2.1 Introduction and in Accordance with 40 CFR 122.34(b)(2)

Public involvement differs from public education in that it not only informs the public, but also provides opportunities for direct citizen action. When citizens participate in a project's decision-making process, they are more likely to support the final outcome. This program describes ways in which the Gilbert community can play an active role in developing and implementing the Town's storm water management program. An informed and involved public can be a valuable information resource and can help build compliance with the program. The public involvement and participation program is also a requirement of the NPDES Phase II Final Rule.

The goals of the public involvement activities are as follows:

- raise public awareness about storm water runoff
- provide opportunities for the public to participate in the development and implementation of the SWMP
- develop public support for the SWMP

The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.2.2 Best Management Practices and Measurable Goals

3.2.2.1 Public Review of the Storm Water Permit

BMP 2.1: Public Review of the Storm Water Management Program and Permit

Measurable Goals:	Target Date	Frequency
i. Advertise availability of Storm Water Management Program.	March 2003	One time
ii. Advertise availability of Storm Water Management Program on cable television.	March 2003	One time
iii. Post SWMP and permit on Town web site.	March 2003	One time

iv. Place copy of SWMP at the library or other public places.	March 2003	One time
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Implementation Responsibility

Environmental Program Administrator, Communication Division

Practice Description and Decision Process

The Town of Gilbert will be required to apply for and receive an approved NPDES permit in accordance with the Phase II Final Rule. As part of the permitting process, the draft general permit was published so the public could review and comment on it. The Town will advertise the availability of the general permit and have a copy of the general permit and SWMP available at the library or other public places. The SWMP also will be available on the Town's web site.

With public participation in the storm water management program, the permitting process and SWMP are less likely to be challenged. Public comments on the program and permit will be accepted via telephone, mail, or email through Environmental Programs, as described in BMP 2.3, Public Feedback.

3.2.2.2 Presentation for Stakeholder Meetings

BMP 2.2: Presentation Meetings for Stakeholders

Measurable Goals:	Target Date	Frequency
i. Develop Storm Water Presentation.	March 2003	One time
ii. Conduct presentation for Town Council at a public meeting.	March 2003	One time
iii. Conduct presentation at Public Works Forum for municipal employees.	April 2003	One time
iv. Post presentation on Town's web page.	April 2003	One time

v. Conduct presentation for the Congress of Neighborhoods.	November 2003	One time
vi. Conduct presentation for Gilbert Chamber of Commerce.	May 2003	One time
vii. Run presentation on cable television.	June 2003	One time

Implementation Responsibility

Environmental Program Administrator, Communication Division

Practice Description and Decision Process

A presentation will be developed to inform the public of the regulatory requirement for a SWMP and the need to develop and participate in storm water quality management programs. It will include a description of the problems associated with urban runoff and the problems unique to Gilbert. The presentation will include possible solutions to the problems, including the SWMP implementation. A copy of the presentation will be made available on the Town's web page.

Public presentations are an important element of the public involvement program. The first audiences for the presentation will be the Gilbert Town Council and municipal staff who will be involved in later implementation. Support for the program must first be achieved within the organization or implementation will not be successful. Elected officials are instrumental in conveying a water quality ethic to the community. In addition to elected officials, group presentations can be made to civic, business, and neighborhood organizations.

Other stakeholders, such as HOAs, educational organizations, and ethnic and economic groups will be targeted through the outreach program described in BMP 1.4, Educational Materials.

3.2.2.3 Public Feedback

BMP 2.3: Public Feedback

Measurable Goals:	Target Date	Frequency
i. Publicize opportunities to comment about the program or report possible violations and complaints.	April 2003	Annually

ii. Implement system to document number and types of comments, reports, and complaints received.	April 2003	One time
iii. Conduct complaint investigation and management.	July 2004	Ongoing
iv. Analyze results and develop an outreach plan to address most common complaints.	October 2004	Annually

Implementation Responsibility

Environmental Program Administrator, Wastewater Superintendent, Code Compliance Administrator, Streets Superintendent, Sanitation Superintendent
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Practice Description and Decision Process

A formal public feedback program will be established for providing comments on the storm water program and for reporting possible violations witnessed by the community. When citizens are properly educated and informed, they can assist in the task of eliminating non-storm water discharges.

The Town has a procedure in place for handling concerns or complaints by citizens of the community. Complaints often trigger an investigation by a representative of the appropriate Section and violations may be mitigated through standard enforcement action. The investigation may result in a warning, citation, or referral to another agency (e.g., Maricopa County Department of Environmental Services, ADEQ, and/or EPA).

3.3 ILLICIT DISCHARGE DETECTION AND ELIMINATION

3.3.1 Introduction and in Accordance with 40 CFR 122.34(b)(3)

An illicit discharge is defined as a discharge to an MS4 that is not composed entirely of storm water. In an effort to eliminate discharges that the established storm drainage system is not designed to accept, process, or discharge, the Town has developed an illicit discharge detection and elimination program.

Recognizing the impact that illicit discharges and illicit connections may have on receiving waters, the Phase II Final Rule requires that the illicit discharge detection and elimination system must, as a minimum, contain the following:

- storm system map, showing the location of the outfalls and the names and locations of waters of the United States that receive discharges from those outfalls
- through an ordinance or other regulatory mechanism, a prohibition on non-storm water discharges into the MS4 and appropriate enforcement procedures and actions
- plan to detect and address non-storm water discharges, including illegal dumping, into the MS4
- information for public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste
- determination of appropriate BMPs and measurable goals for this minimum control measure

The objective of this program is for the municipality to gain a thorough awareness of the storm drainage system. From this information, the types and sources of illicit discharges can be identified as well as the appropriate legal, technical, and educational means to control, minimize, or eliminate these sources from the system.

There are some non-storm water discharges allowed under the General Permit that are not considered “illicit.” Gilbert has determined the following non-storm water discharges or flows are not significant contributors of pollutants: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration, 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, street wash water, and discharge or flows from fire fighting activities. This determination is made based upon an evaluation of the contribution of these sources at the discharge points to waters of the United States. The discharge points are dry, except during significant wet weather events.

The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.3.2 Best Management Practices and Measurable Goals

3.3.2.1 Mapping of the Storm System

BMP 3.1: Storm System Mapping

Measurable Goals:	Target Date	Frequency
i. Develop structural storm system map.	March 2003	Ongoing
ii. Field verification of map.	April 2004	Ongoing

Implementation Responsibility

Technology Services Director, Environmental Program Administrator, Engineering Manager

Practice Description and Decision Process

Existing maps of portions of the storm drainage system are maintained by the Town. The Engineering Division maintains plan drawings that show drainage system details, such as detention basins, retention areas, scuppers, and dry wells within localized areas. Currently there is an ongoing project to compile and document the existing structural storm drainage system into a geographical information system (GIS) format. This information will be integrated with the Town data management system. Once the structural information has been collected in the data management system, the system will be field-verified for accuracy. The GIS map will be continually updated from plan drawings as new areas are developed and a system for updating changes in existing structures will be developed and implemented. The updates for new areas also will be field-verified.

Components of the storm drainage system (such as dry wells) are the responsibility of the property owner. Data will be gathered to identify the party responsible for maintaining these types of components. These data will be input into the data management system.

3.3.2.2 Ordinances and Policies

BMP 3.2: Ordinances and Policies

Measurable Goals:	Target Date	Frequency
i. Develop new policy or ordinance addressing storm water.	March 2004	One time
ii. Submit proposed ordinance or policy to Town Council for approval.	August 2004	One time
iii. Publish adopted ordinance or policy.	December 2004	One time
iv. Develop list of occasional incidental non-storm water discharges.	March 2004	Annually

Implementation Responsibility

Wastewater Superintendent, Code Compliance Administrator, Environmental Program Administrator, Legal Counsel

Practice Description and Decision Process

The Town of Gilbert has the following policies and ordinances in place:

- There is an ordinance that addresses illicit connections and discharges. The formal regulation is found in Gilbert Municipal Code (GMC) 10-311, Drainage, which makes it unlawful to connect to the sewer drainage without a permit obtained through the established Town permitting process. GMC 10-312 makes it unlawful to fail to upgrade any existing cesspool or privy.
- GMC 66 sets discharge and permitting criteria including limits for Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), metals, and other compounds for those industrial sources that are connected to the sanitary drainage system.

- There also is a policy for the discharge of water associated with the drainage of swimming pools.

Although these various ordinances do exist, they are clearly applicable to the sanitary sewer system. There is no direct connection to the protection of storm water quality stated within the existing ordinance, policy, or code.

The Town will specify the non-stormwater flows or discharges it will allow to be discharged to the storm drain and those that will be controlled via the illicit connection (IC)/illicit discharge (ID) program (Figure 3-3). The Town will develop and adopt a policy or ordinance that states it is illegal to cause an ID within the Town.

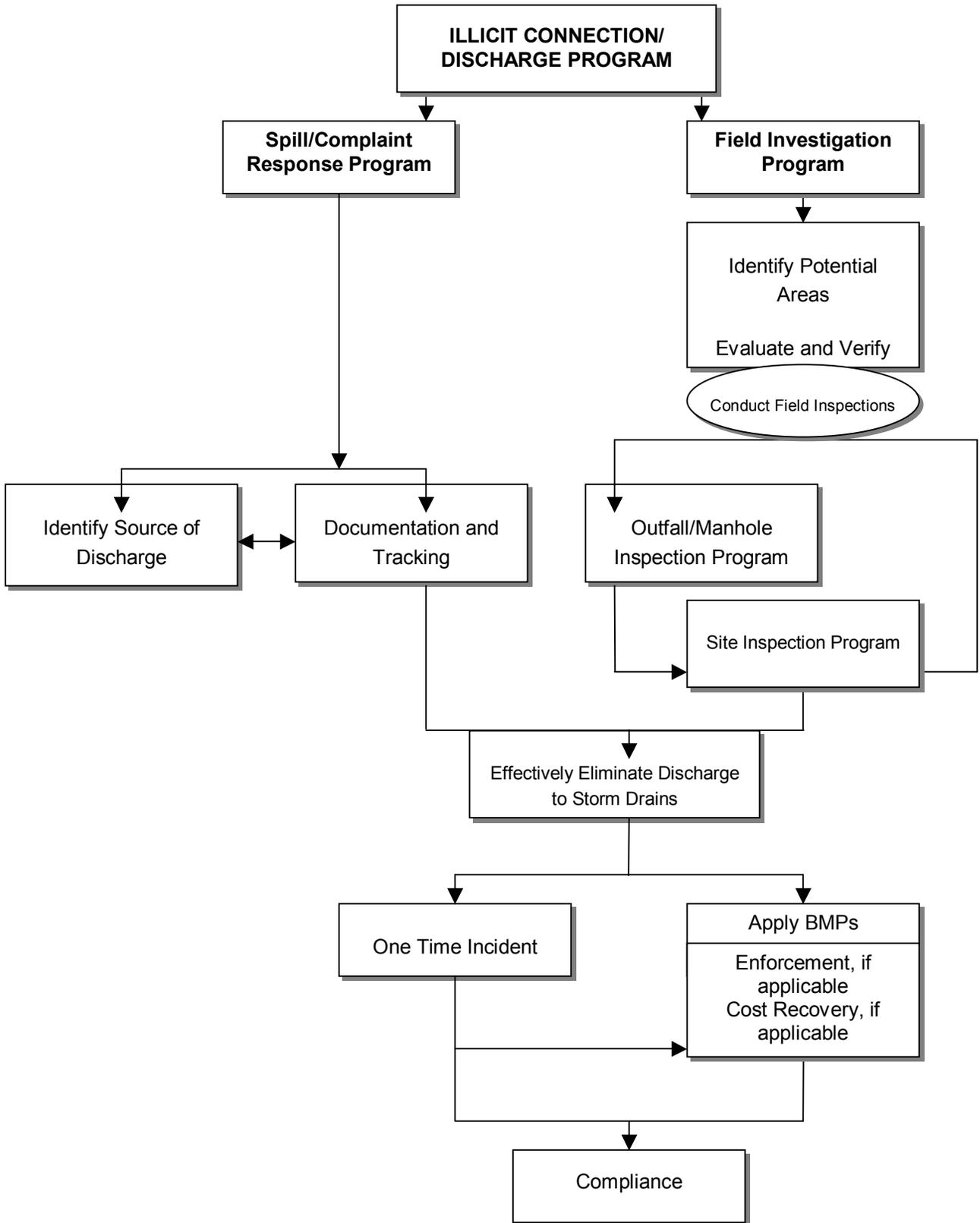
During the permit term, a list will be developed of occasional incidental non-storm water discharges that will not be addressed as illicit discharges (such as charity car washes). Each type of incidental non-storm water discharges will be evaluated for significance as a source of pollutants to the storm water system. The evaluation will include the types of pollutant expected to be discharged, estimated quantity of pollutants discharged, and the pathway and proximity to discharge point leading to waters of the United States. Controls or conditions may be placed on the discharges, or they may be prohibited if they are determined to be a significant source.

3.3.2.3 *Inspections and Enforcement*

BMP 3.3: Inspections and Enforcement

Measurable Goals:	Target Date	Frequency
i. Perform video surveillance of 20 percent per year of existing municipal storm drainage system components that are not readily observable.	July 2004	Annually
ii. Perform annual inspections of Significant Industrial Users by Wastewater Quality inspectors.	July 2004	Annually
iii. Develop inspection schedule for other industrial users by Wastewater Quality inspectors.	February 2004	Annually
iv. Inspections of other industrial users.	July 2005	Per 3.3(iii)

**Figure 3-3
IC/ID Implementation Approach**



v. Develop inspection schedule for commercial establishments by Wastewater Quality inspectors	February 2006	Annually
vi. Inspections of commercial establishments.	July 2007	Per 3.3(v)
vii. Perform 20 percent per year dry weather outfall/manhole inspections by Streets and/or Wastewater Section.	July 2004	Annually
viii. Perform dry weather inspections of discharge outfalls to waters of the United States.	July 2004	Annually
ix. Conduct program evaluation and assessment.	July 2004	Annually

Implementation Responsibility

Wastewater Superintendent, Code Compliance Administrator, Streets Superintendent, Environmental Program Administrator

Practice Description and Decision Process

The program for illicit discharge and connections to the sanitary sewer system is comprehensive and effective. The Town will expand this current program to include the storm drainage system portions located on commercial and industrial properties, and/or develop a separate program that addresses the storm drainage system on commercial and industrial properties based on the sanitary system model.

The Town Wastewater Collection branch of the Wastewater Section plans to implement a video/camera inspection program for the sanitary system. This is a recognized BMP for conducting field inspections designed to detect ICs made after construction inspections have occurred, and to promote timely maintenance of storm drainage systems. The extension of the video camera program to include the inspection of the storm drainage system is logical and cost-effective as the major investment in equipment already will have been made. The majority of the storm drainage system (street inlets and retention basins) in Gilbert is observable without the need for video inspection. Underground components that are not readily observable, such as parking lot drainage inlets, will be included in the expanded video inspection program.

The Town's Wastewater Quality branch of the Wastewater Section has oversight of the Industrial Pretreatment Program (IPP) and illicit discharge detection program for the sanitary sewer system. Their primary function is to ensure that industrial discharges do not adversely affect the Town's wastewater treatment plant operations. Presently, the department has four employees – a coordinator, two technicians, and an inspector. The program focuses on managing the discharges of industrial users and commercial establishments to the sanitary sewer system.

The industrial element of the IPP identifies Significant Industrial Users (SIUs), which are facilities that operate within seven identified industrial sectors that have the potential to impact the sanitary sewer system. The SIUs are required to obtain permits and their connections and discharge activities are monitored. This monitoring includes periodic analysis and reporting on their discharge to the sewer system. In addition, the Town also conducts its own periodic monitoring for the purpose of comparing test results. The Wastewater Quality branch also conducts periodic inspections and reviews of sampling and inspection data. This data review may result in BMP recommendations. At present, unless a code, ordinance or other regulation is violated, the Town cannot require the implementation of a BMP based on “improvement value” alone. Industrial users are expected to have applied for a permit under the Storm Water Discharge Associated with Industrial Activity program. Inspections conducted by the Town will include verifying the facilities have applied for a permit and have developed a Storm Water Pollution Prevention Plan (SWPPP). The inspectors will provide non-permitted facilities with outreach information (BMP 1.4) regarding this requirement.

The commercial element of the IPP focuses on those commercial entities that have been identified as having the potential to impact the sanitary sewer system. To date, several commercial entities have been identified including restaurants, auto maintenance/repair shops, car washes, and dry cleaners. Other commercial entities may be identified as the program progresses. Specific goals for industrial and commercial establishments regarding the inspection process (e.g., frequency, percentage of facilities inspected in a given time frame) and implementation of BMPs will be established. Many commercial entities are expected to have applied for a permit under the Storm Water Discharge Associated with Industrial Activity program. Inspections conducted by the Town will include verifying applicable facilities have applied for a permit and have developed a SWPPP. The inspectors will provide applicable non-permitted facilities with outreach information (BMP 1.4) regarding this requirement.

The Streets Section of the Public Works Department will conduct an outfall/manhole inspection program in conjunction with the storm drainage system clean out program (BMP 6.3) and the Wastewater Section will conduct an outfall/manhole inspections in conjunction with the IPP.

Studies have shown that the highest number of IC/IDs tend to emanate from industrial and commercial areas and from the older sections of communities. As Gilbert is a relatively new community and the number of older establishments is limited, the program has focused primarily on the commercial and industrial segments of the community. The storm drainage system outfall/manhole inspection program complements the existing programs and serves to create a sound, well-rounded program for the purpose of meeting the required goals of the IC/ID program. In conducting the outfall/manhole inspection program, improvements to the present program will be sought by identifying and prioritizing commercial and industrial areas where illicit connections/discharges are most likely to occur. Next, a program for checking specific manholes and outfalls periodically for dry-weather flows will be established. Inspectors will track flows back to potential dischargers and conduct aboveground inspections to look for abnormal water flows during the dry season. Unusual flows, pungent odors and discoloration or oil substances in the water, stains or waste residues in ditches, channels, or drain boxes also will be investigated. It is not always practical or possible or necessary to track discharges that are a non-significant source of pollutants back to their source. The inspector will be allowed to make the determination of whether or not the discharge should be investigated further. The property/business owner that is the origin of the suspect flow will be required to determine the source of the discharge. Once the source of the flow is established, the Town will require that the discharge, if illicit, be eliminated.

The Environmental Programs Section will conduct dry weather inspections of the outfalls to waters of the United States. Inspectors will track flows back to potential dischargers and conduct aboveground inspections and look for abnormal water flows during the dry season. Unusual flows, pungent odors and discoloration or oil substances in the water, stains or waste residues in ditches, channels, or drain boxes will also be investigated. It is not always practical or possible or necessary to track discharges that are a non-significant source of pollutants back to their source. The inspector will be allowed to make the determination of whether or not the discharge should be investigated further. The property/business owner that is the origin of the suspect flow will be required to determine the source of the discharge. Once the source of the flow is established, the Town will require that the discharge, if illicit, be eliminated.

Violations detected through a storm drainage system IC/ID program are of two basic types: illicit physical connections into the storm drain system and illicit dumping or discharges. Incidents of non-compliance are addressed in accordance with GMC 66-172, Penalties and remedies, and associated procedures. Enforcement for the IC/ID component of the SWMP will reside with either the Wastewater Section or with the Code Compliance Section of the Building Department.

IC/ID violation cases may also be referred to the Maricopa County Department of Environmental Services, ADEQ, or EPA, as appropriate.

3.3.2.4 Training of Employees

BMP 3.4: Training of Inspectors

Measurable Goals:	Target Date	Frequency
i. Develop storm water/IC/ID training materials.	July 2003	One time
ii. Provide storm water/IC/ID training for Wastewater Quality Inspectors.	September 2003	One time
iii. Provide storm water/IC/ID training for Streets Section.	October 2003	One time
iv. Provide storm water/IC/ID training for Code Compliance Inspectors.	November 2003	One time

Implementation Responsibility

Environmental Program Administrator, Wastewater Superintendent, Code Compliance Administrator, Streets Superintendent

Practice Description and Decision Process

Present training programs conducted within the Public Works Department address many of the components needed to ensure a well-rounded awareness of critical pollutant paths. This training includes First Responder Awareness Level/Hazardous Materials Awareness training, Pollution Prevention training, and Spill Response and Mitigation training. However, the concept of storm water pollution prevention is not formally discussed in these programs.

The present Town IC/ID training program consists of pollution prevention training conducted within the Public Works Department, and on-the-job training received by employees of the Wastewater Section. The Town presently has an excellent working relationship with the City of Phoenix whereby new employees may work with City of Phoenix personnel to gain valuable practical experience in the areas of pollution prevention, system maintenance, and illicit discharge detection. Public Works employees also may receive pollution prevention training as a component of other training, such as hazardous materials identification and handling, spill response, recycling practices, and proper operation and maintenance techniques. Although much

of this training interfaces with storm water pollution prevention, “storm water protection” is not a clearly identified objective of the present training programs and IC/ID training is not a component of this training.

Existing training may be modified to incorporate storm water issues or new training materials may be developed, as appropriate. Outside training resources also may be used. Once the materials are developed, new employees in wastewater, streets, and code compliance will receive storm water/IC/ID training.

3.4 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

3.4.1 Introduction and in Accordance with 40 CFR 122.34(b)(4)

In the absence of proper management, construction sites can release significant amounts of sediment into storm water and eventually into a municipality's storm water drainage system. Other construction site activities such as storage and handling of construction materials also can release pollutants into the storm drain system. In addition, increases in compaction and impervious surfaces at construction sites impact storm water. Although mean annual amounts of rainfall in the desert Southwest are low relative to other parts of the United States, the single-storm volume of runoff can be significant. The fact that construction and construction-related activities are reaching all-time high levels in Gilbert is cause to evaluate the methods and procedures currently in place to address storm water runoff. Pollutants from construction sites that may impact storm water runoff include sediment, solid and sanitary wastes, fertilizer, pesticides, oil and grease, truck washout debris, and construction debris.

The Phase II Final Rule requires Gilbert to develop, implement, and enforce a program to reduce pollutants in storm water runoff from construction sites within its jurisdiction. Construction activities to be regulated under this program include activities that would result in a land disturbance greater than or equal to 1 acre in size. In accordance with EPA recommended guidelines for program development, the Gilbert construction site storm water runoff control program will be composed of the following components:

- an ordinance or other regulatory mechanism that requires the implementation of proper erosion and sediment controls, and controls to other wastes, on applicable construction sites
- requirements for construction site operators to implement appropriate erosion and sediment control BMPs
- procedures for construction site operators to control waste, such as discarded building materials, concrete truck wash out, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts on water quality
- procedures for site plan review that incorporate consideration of potential water quality impacts

- procedures for receipt and consideration of information submitted by the public
- procedures for site inspection and enforcement of control measures
- BMPs and measurable goals for this minimum control measure

The objective of this program is to provide a system through which land development and construction activities can be evaluated for storm water impacts. The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.4.2 Best Management Practices and Measurable Goals

3.4.2.1 Review and Revise Existing Ordinance(s)

BMP 4.1 Review and Revise existing Ordinance(s)

Measurable Goals:	Target Date	Frequency
i. Develop new policy or ordinance addressing storm water for construction projects.	March 2004	One time
ii. Submit propose ordinance or policy to Town Council for approval.	August 2004	One time
iii. Publish adopted ordinance or policy.	December 2004	One time

Implementation Responsibility

Environmental Program Administrator, Engineering Manager, Legal Counsel

Practice Description and Decision Process

GMC 34-82, within Floodplain Management, indirectly addresses grading and directly addresses the storage of materials and equipment outside of buildings. GMC 34-35, Methods of Reducing Flood Losses, identifies the control of grading, filling, dredging, and other development as important to flood control and refers to “methods and provisions” for conducting such operations. GMC 34-82, Standards for Storage of Materials and Equipment, makes it unlawful to store or process materials that are, in the time of flooding, buoyant, flammable, explosive, or could be injurious to animals or the public. This existing section is not specific about the impact

of such activities on storm water pollution prevention. The materials storage section is narrow in scope.

Existing ordinance components will be expanded to specifically address storm water issues as applicable. In addition, good site planning, good housekeeping practices, and minimization of impacts of post-construction storm water discharges will be emphasized, although they may not be part of the ordinance. A provision that allows the building inspector (e.g., building officials, construction management, or project development representatives) the authority to require certain site controls will also be added to the ordinance. These site controls may include the introduction and use of storm water run-off BMPs, landscaping practices, and material storage and handling practices. This measure is designed to bridge any gap between code violations and the authority to implement BMPs on an as-needed basis in the event a code or regulation is not violated, but the BMP is determined to be necessary by the inspector to protect storm water quality.

3.4.2.2 Plan Review

BMP 4.2 Plan Review

Measurable Goals:	Target Date	Frequency
i. Train plan reviewers for storm water considerations.	March 2003	One time
ii. Develop process for managing SWPPPs received.	March 2003	One time
iii. Review of plans for storm water considerations during and post construction.	April 2003	Ongoing

Implementation Responsibility

Engineering Manager

Practice Description and Decision Process

The plan review process includes the submittal of conceptual plans and preliminary drawings and the review of those items. Submittals are reviewed by the planning personnel, engineering personnel, and fire department. Other departmental reviews occur on an as-needed basis and comments are provided regarding the impact of the project, applicable code requirements, and needed services to support the proposed project. The project is evaluated for conformance with existing codes in the areas of drainage, grading, dust control, and flooding. All plans are

evaluated for storm water impact since the Town requires on-site retention of storm water. Implementation of BMPs (e.g., dry wells, retention basins), their locations, and the numbers of control measures are verified using standard engineering calculations. Once a project is approved, information related to storm water (e.g., flood control, retention areas, dry wells) is recorded on the preliminary and as-built plans. The as-built plans will identify the party responsible for ongoing maintenance and upkeep of any storm water or flood control structural measure.

The current inspection process formally addresses urban runoff issues. However, mechanisms must be put into place to educate the public regarding the upcoming requirements under the Phase II Final Rule. For sites that are 1 acre or more, applicants will be informed of permit requirements in accordance with the Phase II Final Rule for construction sites that are 1 acre in size or larger. Specifically, information about the NPDES permit requirements, including the NOI filing process and the need to develop a construction site SWPPP addressing erosion and sediment controls, and discarded building materials, such as concrete washout, chemicals, litter, and sanitary wastes, will be provided. Blank copies of the NOI will be made available and generic SWPPP templates or other guidance tools will be readily available for developers to access. Outreach materials will be developed and distributed (BMP 1.4).

SWPPPs will be required for construction projects 1 acre or more or small sites that are part of a larger planned development, as required under the small construction activity program of the Phase II Final Rule. A submittal to the Engineering Division of the required SWPPP will be a precursor to the issuance of other site disturbance/construction application process permits.

3.4.2.3 Projects Less Than 1 Acre

BMP 4.3 Construction/Community Outreach Materials for Projects Less than 1 Acre

Measurable Goals:	Target Date	Frequency
i. Develop a SWPPP BMP checklist for small construction sites.	April 2003	One time
ii. Make outreach materials related to storm water BMPs and SWPPP templates available in hard copy and/or electronically.	April 2003	One time
iii. Post information on Town web site.	April 2003	One time

Implementation Responsibility

Engineering Manager, Communication Division

Practice Description and Decision Process

A SWPPP BMP checklist or template for use by smaller construction site projects (less than 1 acre) will be developed and implemented to promote participation in the program and to make voluntary compliance streamlined and as easy as possible. Outreach information for public use will be made available within the Town web site pages and/or in hard copy format. This information will be designed to inform and educate the public regarding the impacts of construction activity on storm water quality.

In an effort to promote voluntary compliance, applicants involved in a construction project that disturbs less than 1 acre will be informed of the local permit process. Brochures and other informational materials will be made available. Site inspections during and after construction in accordance with present (applicable) Town procedures will be continued and correction of noted violations will be enforced.

3.4.2.4 Inspections and Enforcement

BMP 4.4 Inspections and Enforcement

Measurable Goals:	Target Date	Frequency
i. Develop internal training materials.	July 2003	One time
ii. Train inspectors in how to evaluate BMPs identified in SWPPPs.	April 2003	One time
iii. Incorporate inspection of storm water components into inspection program.	April 2003	One time
iv. Perform inspections of permitted construction sites.	April 2003	Ongoing

Implementation Responsibility

Engineering Manager, Code Compliance Administrator

Practice Description and Decision Process

Construction in the Town requires that each contractor have a permit for the job and that an approved set of plans must be on site at all times. Detailed inspections are completed for every construction job in the Town regardless of the acreage involved. These inspections include retention grading, sewer line flow, water line leakage and pressure, and soil density, among others. Grading inspections include dust control, maintenance of haul roads, and a requirement that existing streets be kept clean during construction. Dry wells are inspected to verify they are constructed as identified in the plan and copies of drilling logs are maintained by the Town. Sanitary sewer inspections include pipe bedding and grades, verification of each service and pipe shading, backfill compaction, and pressure testing of the line. Videotaping the sanitary sewers is not started until dry utilities are installed to prevent damage to the line after inspection. The inspection program will be expanded to include evaluation of discharges or potential discharges to the MS4 during construction.

Implementation of this program will include training the plan review staff and inspection staff so that they can inform the applicant, review plans for compliance, and inspect the sites for implementation of BMPs that will prevent discharges to the MS4 during and after construction. Once the training materials are developed, new engineering inspectors will be provided with training.

With regard to general public inquiry, any concerns or complaints received from the public regarding a construction project is relayed to the engineering inspector who has jurisdiction for that project or developmental area. The same procedures described in BMP 2.3, Public Feedback will be used to address complaints related to construction projects. Complaints are investigated by the inspector or Code Compliance and any violation is mitigated through standard enforcement action, or cases may be referred to Maricopa County, ADEQ or EPA, as deemed appropriate.

The Phase II Final Rule requires enforcement of construction site storm water runoff control measures under 40 CFR 122.34(b)(4)(ii)(F). Enforcement will be consistent with existing ordinances and policies as well as with new ordinances or policies that are developed in BMP 4.1, Review and Revise Existing Ordinance(s). These mechanisms may include non-monetary penalties (such a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

3.5 POST-CONSTRUCTION, DEVELOPMENT AND REDEVELOPMENT CONTROLS

3.5.1 Introduction and in Accordance with 40 CFR 122.34(b)(5)

There are generally two forms of substantial impacts from 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 (e.g., nitrogen and phosphorus). These pollutants become suspended in storm water runoff and have the ability to impact the food chain and eventually impact humans. The second kind of post-construction runoff impact occurs by increasing the quantity of water delivered to the receiving 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 that may be in the form of a retention basin, dry well, or wash. This can result in scouring of natural washes and flooding of areas, resulting in property damage.

The Phase II Final Rule requires operators of regulated municipalities to develop, implement, and enforce a program to reduce pollutants in post-construction runoff to their drainage system from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre. It is far more cost-effective to deter pollutants from the system than it is to treat the pollutants once they have entered the system. With this in mind, the small MS4 operator must meet the following requirements:

- develop and implement strategies that include a combination of structural and/or non-structural BMPs
- have an ordinance or other regulatory mechanism requiring the implementation of post-construction runoff controls to the extent allowable under law
- ensure adequate long-term operation and maintenance controls
- determine the appropriate BMPs and measurable goals for this minimum control measure

The purpose of the post-construction program is to provide a mechanism by which ongoing protection of storm water quality can be addressed and attained. The plan will incorporate both structural BMPs (storage practices, infiltration practices, and vegetative practices) as well as non-structural components such as planning procedures and site-based local controls (e.g., buffer

strips, riparian zones). The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.5.2 Best Management Practice and Measurable Goals

3.5.2.1 Post-Construction Control Program

BMP 5.1 Post Construction Control Program

Measurable Goals:	Target Date	Frequency
i. Review plans.	March 2003	Ongoing
ii. Inspect new developments and redevelopment projects during construction.	April 2003	Ongoing
iii. Inspect projects for post-construction controls.	April 2003	Ongoing

Implementation Responsibility

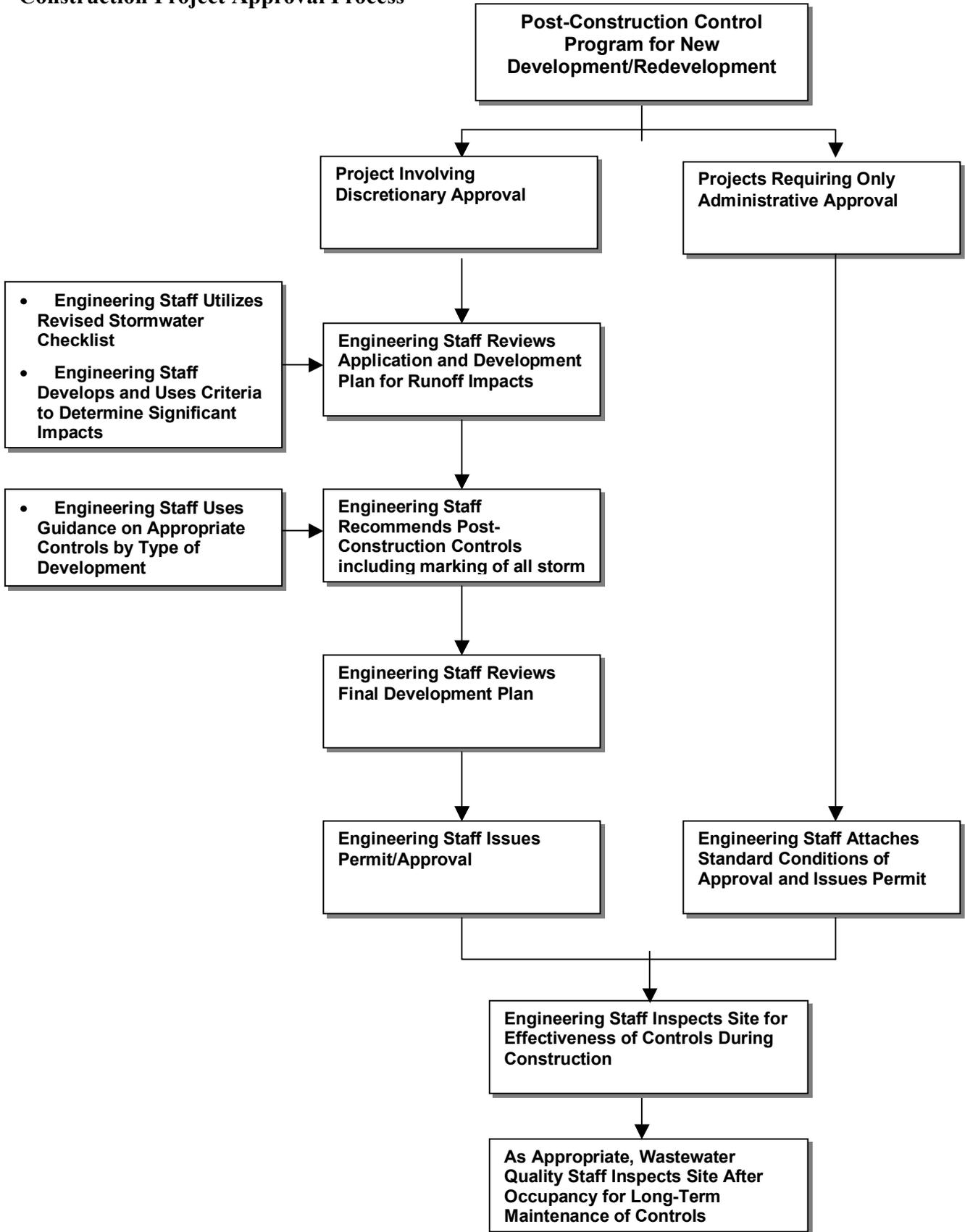
Engineering Manager

Practice Description and Decision Process

The permitting process provides the municipality the opportunity to review a new development or redevelopment project during its planning stage. The current project level plan review and inspection processes will be improved with regard to the long-term management and control of storm water quality. The design review/pre-application process will ensure that storm water quality issues continue to be addressed. Any project that is likely to impact storm water quality after the construction phase (i.e., post-construction), will be required to submit plans for post-construction storm water quality controls. In addition, the developer, owner, or operator also must submit plan for a long-term maintenance of such devices.

The overall project approval process for the post-construction control program will follow the outline provided on Figure 3-4. Improvements to the current inspection will include a post-construction inspection checklist that will be used to verify and document that certain urban runoff controls were implemented as discussed, itemized, or required during the pre-application process.

**Figure 3-4
Construction Project Approval Process**



The effectiveness of this BMP will be measured by the number of plans reviewed and the number of inspections conducted.

3.5.2.2 Non-Structural and Structural BMPs

5.2 Non-Structural and Structural BMPs

Measurable Goals:	Target Date	Frequency
i. Review the General Plan.	Dec 2007	One time
ii. Review the Town of Gilbert Unified Land Development Code.	Dec 2007	One time

Implementation Responsibility

Planning Director, Engineering Manager, Environmental Program Administrator, Legal Counsel

Practice Description and Decision Process

Non-Structural

The Town uses a variety of non-structural control measures to manage storm water flow, manage development in sensitive areas, and educate the public in the area of storm water quality and increased runoff loading. These items include the formal development of the Town of Gilbert General Plan, educational facilities (i.e., the Riparian Institute) and internal educational opportunities, ordinances (including zoning and flood control), codified industrial discharge limits, and inspection programs.

At the municipal level, and as discussed in the 2001 General Plan, land use planning will be used to control development within sensitive areas, including recharge zones, and the amount of impervious surfaces and pollutant sources added to the community. The Plan calls for the use of conservation easements, public parks, and open spaces, which will have a positive impact on storm water infiltration. The Town will specify that a certain percentage of open space be retained for storm water management or filtration for industrial, commercial, municipal, and multi-unit residential projects. This percentage of land will be in accordance with the General Plan and the use of sound engineering calculations. The General Plan will be periodically reviewed to ensure that storm water management continues to be an important element in land use planning. Amendments to the General Plan may occur after careful review of requests,

findings-of-fact in support of the revision, and public hearing(s) by the Planning and Zoning Commission and Town Council. Adoption of amendments must follow the statutory guidelines.

Structural

Structural BMPs already required include specific engineering requirements (e.g., streets must be constructed to convey the 10-year, 1-hour precipitation event); incorporation of scuppers, drainage, and retention areas into site development plans; use of ADEQ dry well standards; material storage practices; and vegetation practices. These structures are designed to manage storm water impact at the local, regional, and watershed levels. The Town of Gilbert Unified Land Development Code will be reviewed periodically to ensure that storm water management continues to be an important element in watershed management.

3.5.2.3 Ordinance(s) or Policy

BMP 5.3 Review and Revise existing Ordinance(s) or Policy

Measurable Goals:	Target Date	Frequency
i. Develop new policy or ordinance addressing storm water for development, redevelopment, and post-construction controls.	March 2004	One time
ii. Submit proposed ordinance or policy Town Council for approval.	August 2004	One time
iii. Publish adopted ordinance or policy.	December 2004	One time

Implementation Responsibility

Engineering Manager, Environmental Program Administrator, Legal Counsel

Practice Description and Decision Process

Although the Town of Gilbert Unified Land Code addresses such issues as drainage and flood control, there is not currently an ordinance that allows the Town to require the use of recognized BMPs to improve upon the quality of storm water discharged from a facility or site.

The Town of Gilbert Unified Land Code specifies that it is the dry well owner’s responsibility to maintain the dry well. Currently, there is no ordinance that addresses the implementation of other control measures for the purpose of controlling storm water quality over the long-term except in

the case where a lack of practices causes flooding. Failure of private operators to meet code and conduct long-term maintenance on control devices can be enforced if flood control or drainage codes are violated. However, where privately held retention/detention basins and control devices are concerned, there is no mechanism by which the Town can take actions, such as cost reimbursement for repair and maintenance activities, in instances where individuals or HOAs do not maintain post construction controls and the non-action may result in hazardous situations or damage to public property. These issues will be evaluated during the development of a new ordinance or policy.

3.5.2.4 Long-term Operation and Maintenance Controls

BMP 5.4 Long-term Operation and Maintenance Controls

Measurable Goals:	Target Date	Frequency
i. Gather data for identification of party responsible for maintenance of various components of existing storm drainage system.	April 2005	One time
ii. Develop system for inputting responsible party information for new storm drain components.	April 2004	One time

Implementation Responsibility

Engineering Manager, Environmental Program Administrator

Practice Description and Decision Process

The long-term maintenance and inspection program will address the operation and maintenance of post-construction controls. As stated previously, those structural BMPs that are owned and operated by the Town do not pose a problem as they are the responsibility of the Town to operate and maintain, and the Town has the infrastructure and programs for fulfilling these obligations.

For public projects, maintenance of post-construction controls is ensured by: (1) establishing maintenance and inspection plans for each municipal project; (2) assigning the task to the department responsible for the general maintenance of the site; and (3) providing adequate funding.

However, with regard to long-term maintenance and inspection of post-construction controls for which the Town does not have ongoing control, the following procedures will be implemented:

- For projects involving multi-family residential units or a master development plan, the maintenance of the controls will be ensured through covenants, conditions, and restrictions. The developer will be informed that this requirement must be conveyed to the HOA/property owner when the project is handed over (BMP 1.4). This information will be recorded on the final as-built plans and entered into the Town's data management system.
- For commercial/industrial developments, the maintenance aspects will be ensured through conditions in lease agreements. The developer will be informed that the lease agreements must contain information related to the maintenance requirements for the post-construction controls at the site (BMP 1.4). This information will be recorded on the final as-built plans and entered into the Town's data management system.
- For developments within county islands, the Town will work with the FCDMC to identify responsible parties.

Once the storm system map has been completed (BMP 3.1), data will be gathered and input into the Town's data management system that will identify the party responsible for maintenance of various components of existing storm drainage system. A system will be developed for inputting responsible party information for new storm drain components as development within the Town continues.

Development and distribution of outreach materials are addressed in BMP 1.4. Inspections related to long-term post construction controls, such as on-site dry wells, retention basins, and detention areas, will be conducted for municipal operations (BMP 3.3 and BMP 6.3); commercial/industrial developments (BMP 3.3 and BMP 5.1); and in response to complaints (BMP 2.3).

3.6 POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

3.6.1 Introduction and in Accordance with 40 CFR 122.34(b)(6)

Pollution prevention and good housekeeping practices on the behalf of the municipality are critical to maintaining progress and achieving continued improvement with respect to environmental quality, not just water quality. A pollution prevention and good housekeeping program requires operators to examine and subsequently alter their own actions to help ensure a reduction in the type and amount of pollution. This includes pollution that collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm drainage systems and retention areas.

Recognizing the benefits of pollution prevention practices, the rule requires an operator of a regulated small MS4 to perform the following:

- develop and implement an operation and maintenance program with the ultimate goal of preventing or reducing pollutant runoff from municipal operations into the storm drainage system
- include employee training on pollution prevention and good housekeeping practices into municipal operations
- implement the appropriate BMPs and develop measurable goals for this minimum control measure

The intent of this control measure is to ensure that existing municipal practices are performed in ways that will minimize contamination of storm drainage discharges and to assist in an efficient and effective use of resources. Key components of this measure include proper maintenance and long-term inspection procedures, controls for reducing or eliminating discharges of pollutants, procedures for proper waste disposal, and the proper assessment of flood management projects on water quality impacts. Municipal operations of concern include parks and open-space maintenance, fleet maintenance, planning, building oversight, and storm water system maintenance.

The effectiveness of this minimum control measure will be evaluated by the completion of each of the measurable goals identified for the BMPs selected.

3.6.2 Best Management Practices and Measurable Goals

3.6.2.1 Street Sweeping Operations

BMP 6.1 Street Sweeping Operations

Measurable Goals:	Target Date	Frequency
i. Review street sweeping schedule to identify areas prone to debris accumulation, key areas to be swept for wet weather, parking lots, and the need for additional signage or receptacles.	April 2003	Annually
ii. Develop and implement an internal reporting program for the street sweeper drivers to report areas prone to debris accumulation, key areas to be swept for wet weather, parking lots, and the need for additional signage or receptacles.	March 2003	One time
iii. Post street sweeping information on Town web page.	July 2003	Annual update

Implementation Responsibility

Streets Superintendent, Communication Division

Practice Description and Decision Process

The Town has an active street sweeping program in place to reduce floatables and other pollutants. Streets are swept in accordance with a master schedule, sweeper maintenance is scheduled and occurs on a regular basis, and maintenance practices incorporate proper control measures including the use of wash racks and proper disposal of collected debris. The street sweeping schedule will be reviewed annually to ensure new areas of development are incorporated into the street sweeping program.

Methods to be used to improve upon the current results of the street sweeping program include the following:

- increased frequencies in areas most prone to litter and dust/dirt accumulation
- sweeping before the onset of wet weather

- an aggressive operation and maintenance program for the sweepers (in place) that includes washing of the vehicle over a wash rack designed to trap grease, sediment, and oil
- development and implementation of an internal reporting program for the street sweeper drivers to report areas prone to debris accumulation, key areas to be swept for wet weather, parking lots, and the need for additional signage or receptacles
- improved communications such that curbs are cleared before sweeping takes place (establish and maintain a consistent sweeping schedule and provide information to the public), including posting street sweeping information on the Town’s web site

Like streets, the pollutants on parks and municipal parking lots are associated with litter and vehicle use. BMPs currently in place for these areas include the posting of “please place litter in trash receptacles” signs, well-placed litter receptacles with adequate clean-out schedule, and established parking lot sweeping schedules. Pet waste collection stations are also placed at the municipal parks.

Street sweepings are brought to the Public Works Field Operations facility prior to disposal. The sweepings piles are tested annually for hazardous characteristics. If unusual sweepings materials are identified, they will be brought to the attention of the Environmental Program Administrator for evaluation and proper disposal.

3.6.2.2 Medians and Other Municipal Landscaped Areas

BMP 6.2 Maintenance of Medians and other Municipal Landscaped Areas

Measurable Goals:	Target Date	Frequency
i. Provide good housekeeping training for Streets and Parks Departments.	January 2005	One time
ii. Train personnel in proper pesticide and herbicide application techniques.	January 2005	One time

Implementation Responsibility

Streets Superintendent, Parks and Recreation Director

Practice Description and Decision Process

The primary pollutants of concern from medians and other landscaped areas are sediment from erosion, nutrients from fertilizer use and organic matter (grass clippings and leaves), and heavy metals and toxic organics from pesticide/herbicide use. Fertilizers applied in excessive amounts can run off with irrigation. If improperly applied, pesticides used in parks and around structures could run off into storm drains, dry wells, or wash areas. Where pesticides and herbicides must be used, personnel will be trained in proper pesticide and herbicide application techniques such that absorption will be maximized and runoff will be minimized.

Good housekeeping improvement practices that will help reduce urban runoff pollution will be incorporated into the municipality’s existing maintenance program for medians, landscaped areas, and parks. These activities are conducted by the Parks Department as well as the Street Section of the Public Works Department. In addition, the Town will landscape median areas using native vegetation and in a manner that promotes rain water infiltration and minimizes and sediment runoff.

3.6.2.3 Storm Drain Inlet/Catch Basin and Line Cleaning

BMP 6.3 Storm Drain Inlet/Catch Basin and Line Cleaning

Measurable Goals:	Target Date	Frequency
i. Clean 20 percent per year of municipal storm drain inlets/catch basins.	July 2004	Annually
ii. Develop internal reporting system for the storm drain cleaners to identify areas requiring repair or more frequent cleaning.	March 2003	One time
iii. Conduct 20 percent per year wet weather inspections of the municipal storm drain system.	July 2004	Annually

Implementation Responsibility

Streets Superintendent, Environmental Program Administrator

Practice Description and Decision Process

A variety of urban pollutants can be carried into and accumulated in storm drain facilities. Often, the first rainfalls of the rainy seasons (winter and again during the monsoons of late summer) flush out large amounts of pollutants into receiving washes and the storm drainage system, which results in adverse effects on water quality. The Streets Section has developed a storm drain inlet and catch basin cleaning schedule whereby basins and inlets are routinely inspected and cleaned on a regular, rotating basis (a percentage of basins are inspected and cleaned once per month). In addition, the Town will identify problem areas and ensure that these zones are cleaned prior to seasonal storm water flows (fall, winter, and onset of monsoons). This will not only prevent larger influxes of pollutants from the initial heavy rain event, but also will reduce the chance of flooding in those areas. Inlets and basins will be observed during the dry seasons to determine which, if any, are prone to clogging or litter collection.

A water truck and/or vacuum truck are used for cleaning the storm drain inlets and catch basins. The collected debris and sediment are brought back to the Public Works Yard prior to disposal. The piles are tested annually for hazardous characteristics. If unusual debris/sediment are identified, they will be brought to the attention of the Environmental Program Administrator for evaluation and proper disposal.

The Environmental Program Section will also conduct wet weather inspections and document visual observations of discharged water quality. The discharges will be observed for odor, color, turbidity, and floatables. The outfalls also will be observed for unusual stains, deposits, vegetation conditions, and damage to the outfall.

3.6.2.4 Storm Water Pollution Assessments of Municipal Operations

BMP 6.4 Storm Water Pollution Prevention Assessments of Municipal Operations

Measurable Goals:	Target Date	Frequency
i. Survey public works facility.	January 2004	One time
ii. Survey parks facilities.	July 2004	One time
iii. Survey recreation centers.	January 2005	One time
iv. Survey fire departments.	April 2005	One time

v. Survey Public Safety complex.	October 2005	One time
vi. Survey water treatment plant.	July 2005	One time

Implementation Responsibility

Environmental Program Administrator

Practice Description and Decision Process

The Town presently implements a series of BMPs to address activities within its operational yards. Such activities include active recycling programs, designated areas for equipment cleaning and tank clean-outs, and pollution prevention training. In an effort to improve upon the present program, the Town will evaluate the activities listed in Table 3-2 for storm water impact.

Table 3-2. Urban Runoff Concerns and their Sources

Source/Activity	Urban Runoff Concern
Vehicle washing	Discharge to storm drains
Changing auto fluids	Spills of fluids, especially in outdoor areas
Parked vehicles and equipment	Fuel leaks and drips in outdoor areas
Outdoor waste/materials storage	Release/spill of stored materials in uncovered areas with no secondary containment
Illicit connections	Floor drains from work areas and covered areas discharging to storm drains or dry wells
Public swimming pool maintenance and drainage procedures	Discharges to dry wells or storm drains
Handling of materials from street sweeping	Release of dust, sediments and dirt and other trash during unloading/cleaning of sweeping equipment
Unpaved/compacted surfaces	Release of dust and sediment due to vehicle movement across such surfaces

BMPs already have been implemented for many of the areas of concern discussed above, but these areas will be evaluated for storm water quality impacts and identification of areas for improvement. The Environmental Program Section will conduct assessments of each municipal operation to evaluate potential storm water impacts. The Town does not operate any industrial facilities that are subject to EPA's Multi-Sector General Permit. This is subject to change in the future if the Town takes over the operation of either of the two wastewater treatment plants.

3.6.2.5 Best Management Practices for Municipal Operations

BMP 6.5 Best Management Practices for Municipal Operations

Measurable Goals:	Target Date	Frequency
i. Develop and implement BMPs for public works yard.	June 2004	One time
ii. Develop and implement BMPs for parks facilities.	December 2004	One time
iii. Develop and implement BMPs for recreation centers.	March 2005	One time
iv. Develop and implement BMPs for fire departments.	June 2005	One time
v. Develop and implement BMPs for public safety complex.	September 2005	One time
vi. Develop and implement BMPs for water treatment plant.	December 2005	One time

Implementation Responsibility

Element/Activity	Responsible Department
Street Sweeping and Cleaning	Public Works (Streets)
Sidewalks, Plazas, and Municipal Parking Lot Cleaning	Public Works (Streets, Building Maintenance, Fleet Maintenance)
Medians, Other Landscaped Areas, Parks	Public Works (Streets); Parks
Storm Drain Inlet/Catch Basin Cleaning	Public Works (Streets)
Yard and Other Municipal Operations Areas	Public Works (Fleet Maintenance, Building Maintenance, Sanitation)
Swimming Pools, Fountains, Municipal Lakes	Public Works; Parks and Recreation
Repair and Maintenance of Town Surfaces	Public Works (Streets)
Structural Retrofit of Storm Drain Facilities	Public Works (Streets, Engineering), Parks, Individual facility

Practice Description and Decision Process

Based on the results of the assessments conducted for each municipal operation, the Environmental Program Section will work with each Section to develop BMPs and/or standard operating procedures. The BMPs will be designed to reduce or eliminate the discharge of pollutants from parking lots, maintenance and storage yards, and maintenance shops. Each

Section will be responsible to for implementing practices developed and then setting appropriate, measurable goals for the chosen BMP. Each Section will report on an annual basis to the Environmental Program Administrator regarding goals and progress.

Additionally, the Public Works Department is involved in an accreditation process with the American Public Works Association. The accreditation process involves the documentation of processes and procedures, including operation and maintenance plans and the formal development of applicable Standard Operating Procedures (SOPs). Storm water control and quality measures will be formally incorporated into the SOPs, where applicable and appropriate.

In order to implement the BMPs selected for each municipal operation, each Section will conduct employee training. The training will include general storm water awareness as well as the specifics of the BMPs to be implemented. Training materials may be developed internally, by a consultant, or obtained from an outside agency such as EPA, ADEQ, or other organizations. This training will be separate from other training previously described, such as training for inspectors, since this training will be specific to municipal operations.

3.6.2.6 Public Swimming Pools

BMP 6.6 Public Swimming Pools

Measurable Goals:	Target Date	Frequency
i. Develop and implement BMPs for public swimming pools.	March 2005	One time

Implementation Responsibility

Parks and Recreation Director, Wastewater Superintendent

Practice Description and Decision Process

The municipality will work with the Wastewater Industrial Pretreatment Program to determine safe discharge limits on chlorine levels to the sanitary sewer system for municipally owned and operated pools. The Town will also drain pools on a rotating schedule (e.g., one pool per week) during pool closures to ensure that the sanitary system is not hydrologically overwhelmed.

3.6.2.7 Repair and Maintenance Activities

BMP 6.7 Repair and Maintenance Activities

Measurable Goals:	Target Date	Frequency
i. Develop training materials for BMPs for repair and maintenance activities.	January 2006	One time
ii. Implement training program.	March 2006	One time

Implementation Responsibility

Streets Superintendent, Building Maintenance Supervisor, Environmental Program Administrator

Practice Description and Decision Process

Activities to repair and replace pavement surfaces can lead to urban runoff pollution. Pollutants of concern include broken asphalt and concrete debris, saw-cutting slurry, concrete truck wash-out, sediment, fuel, oil, and other fluids from construction equipment. Urban runoff also can result from other cleaning activities such as graffiti removal and building cleaning. In an effort to reduce urban runoff, the Town implements certain BMPs including conducting repair and maintenance during dry weather, protecting nearby storm drains and water bodies, sweeping debris, and recycling materials where and when appropriate.

The main area for improvement is heightened employee awareness. Although many BMP practices are implemented, heightened awareness of the line-level employee will dramatically improve desired pollution prevention results. This will be accomplished through employee training. As a component of the storm water/pollution prevention training, employees will be trained in environmental awareness and material conservation. Training will include identification of sensitive receptors (weather conditions, storm drain locations, water bodies, slopes, and drainage); BMPs (mixing only what is needed for the job, use of less hazardous materials and recycling); and clean-up procedures (equipment cleaning, maintenance and storage, and proper disposal of debris generated by the job). Once the training materials are developed, new employees involved in repair and maintenance activities will receive training.

Table 3-3 provides an example of standard municipal surfaces and BMP recommendations for cleaning those surfaces.

Table 3-3. Cleaning of Surfaces and Structures

Type of Surface	Characteristics	Cleaning Technique	Discharge to Storm Drain	Disposal Alternatives
Sidewalks and Plazas	No oily deposits	Sweep, collect, and dispose of debris and trash; then wash.	Acceptable to discharge to storm drain.	
Sidewalks, Plazas, and Driveways	Light oily deposits	Sweep, collect, and dispose of debris and trash. Clean oily spots with absorbent, place oil-absorbent boom around storm drain, or a screen or filter fabric over inlet.	Acceptable to discharge to storm drain, provided an oil-absorbent boom or filter fabric is used. No oily sheen should be visible in the water draining into the storm drain.	
Parking Lots and Driveways	Heavy oil deposits	Sweep, collect, and dispose of debris and trash. Clean oily spots with absorbent materials. Use a screen or filter fabric over inlet, then wash surfaces.	Seal storm drains. Cannot be discharged to the storm drain.	Vacuum/pump wash water to a tank or discharge to sanitary sewer.
Building Exteriors and Walls	Glass, steel, or painted surfaces (post-1978/no lead in paint)	Wash without soap.	Acceptable to discharge to storm drain provided the drain is sealed first with a fabric filter to capture dirt, paint particles and flakes, or oil-absorbent boom.	Alternatively can be sent to landscape areas.
		Wash with soap.	Cannot be discharged to storm drain.	Direct washwater to sanitary sewer or vacuum/pump water to a tank.
Masonry	Mineral deposits	Acid wash.	Seal storm drains. Cannot be discharged to storm drain.	Rinse treated area with alkaline soap and direct washwater to a landscaped or dirt area. Alternately, washwater may be collected and neutralized to a pH level between 6 and 10, then discharged to landscaping or pumped to sanitary sewer.

Source: Santa Clara Valley Urban Runoff Pollution Prevention Program.

Table 3.4 BMP Implementation Schedule

Reporting Period March 2003 - June 2004		
2.1 i	Advertise availability of Storm Water Management Program	Mar-03
2.1 ii	Advertise availability of Storm Water Management Program on cable television	Mar-03
2.1 iii	Post SWMP and permit on Town website	Mar-03
2.1 iv	Place copy of SWMP at the library or other public places	Mar-03
2.2 i	Develop Storm Water Presentation	Mar-03
2.2 ii	Conduct presentation for Town Council	Mar-03
3.1 i	Development of structural storm drainage system map	Mar-03
4.2 i	Train plans reviewers for storm water considerations	Mar-03
4.2 ii	Develop process for managing SWPPPs received	Mar-03
5.1 i	Incorporate new plans storm water review by engineering into existing plans review program	Mar-03
6.1 ii	Development and implementation of an internal reporting program for the street sweeper drivers to report areas prone to debris accumulation	Mar-03
6.3 ii	Develop internal reporting system for the storm drain cleaners to identify areas requiring repair or more frequent cleaning	Mar-03
1.4 v	Develop and distribute at least one educational material for developers	Apr-03
1.4 vi	Develop and distribute at least one educational material for construction industry	Apr-03
2.2 iii	Conduct presentation at Public Works Forum for municipal employees	Apr-03
2.2 iv	Post presentation on Town's web page	Apr-03
2.3 i	Publicize how to make comments or complaints	Apr-03
2.3 ii	Implement system to document number and types of comments, reports and complaints received	Apr-03
4.2 iii	Review of plans for storm water considerations during and post construction	Apr-03
4.3 i	Development of a SWPPP BMP checklist for small construction sites	Apr-03
4.3 ii	Outreach materials related to storm water BMPs and SWPPP templates are available in hard copy and/or electronically	Apr-03
4.3 iii	Post information on Town website	Apr-03
4.4 ii	Train inspectors on how to evaluate BMPs identified in SWPPPs	Apr-03
4.4 iii	Incorporate inspection of storm water components into inspection program	Apr-03
4.4 iv	Inspections of permitted construction sites	Apr-03
5.1 ii	Inspection of new developments, redevelopment projects	Apr-03
5.1 iii	Inspection of post construction controls	Apr-03
6.1 i	Annual review of street sweeping schedule	Apr-03
1.3 ii	Annual storm water update presentation for the Town's Enviro. Compliance Committee	May-03
2.2 vi	Conduct presentation for Gilbert Chamber of Commerce	May-03
2.2 vii	Run presentation on cable television.	Jun-03
1.3 i	Continued participation in regional working groups on municipal storm water issues	Jul-03
3.4 i	Development of Storm water/IC/ID training materials	Jul-03
4.4 i	Develop internal training materials	Jul-03
6.1 iii	Post street sweeping information on Town web page	Jul-03
1.4 iv	Develop and distribute at least one educational material for homeowner associations	Aug-03
1.4 i	Develop and distribute at least one educational material for small business owners	Sep-03
3.4 ii	Storm water/IC/ID training for Industrial Pretreatment Inspectors	Sep-03
1.1 i	Expand the educational outreach program to include storm water issues	Oct-03
1.1 ii	Post information on Town's web site	Oct-03
1.1 iv	Advertise event to diverse audience (incorp SW element)	Oct-03
1.4 xi	Develop and distribute at least one educational material for residents on septic systems	Oct-03
3.4 iii	Storm water/IC/ID training for Streets Section	Oct-03

Table 3.4 BMP Implementation Schedule

Reporting Period March 2003 - June 2004 (cont)		
1.1 iii	Hold household hazardous waste collection event annually (incorp SW element)	Nov-03
1.2 i	Expand the recycling educational program to include storm water issues	Nov-03
1.2 ii	Post information on Town's web site	Nov-03
1.2 iii	Advertise <i>Reduce, Reuse and Recycle</i> to diverse audience	Nov-03
1.4 ix	Develop and distribute at least one educational material for general public (in Spanish)	Nov-03
1.4 viii	Develop and distribute at least one educational material for general public (in English)	Nov-03
2.2 v	Conduct presentation for the Congress of Neighborhoods	Nov-03
3.4 iv	Storm water/IC/ID training for Code Compliance Inspectors	Nov-03
1.4 ii	Develop and distribute at least one educational material for restaurants.	Dec-03
1.4 x	Develop and distribute at least one educational material for 5 significant commercial and industrial segments within Gilbert	Dec-03
1.4 vii	Develop and distribute at least one educational material for recreational water users	Jan-04
6.4 i	Survey Public Works Facility	Jan-04
3.3 iii	Development of inspection schedule for other industrial users	Feb-04
1.4 iii	Develop and distribute at least one educational material for agricultural farmers	Mar-04
3.2 i	Develop new policy or ordinance addressing storm water	Mar-04
3.2 iv	Develop list of occasional incidental non-storm water discharges	Mar-04
4.1 i	Develop new policy or ordinance addressing storm water for construction projects	Mar-04
5.3 i	Develop new policy or ordinance addressing storm water for development, redevelopment and post construction controls	Mar-04
2.3 i	Publicize how to make comments or complaints	Apr-04
3.1 ii	Field verification of map	Apr-04
4.2 iii	Review of plans for storm water considerations during and post construction	Apr-04
4.4 iv	Inspections of permitted construction sites	Apr-04
5.1 ii	Inspection of new developments, redevelopment projects	Apr-04
5.1 iii	Inspection of post construction controls	Apr-04
5.4 ii	Development of system for imputing responsible party info for new storm drain components	Apr-04
6.1 i	Annual review of street sweeping schedule	Apr-04
1.3 ii	Annual storm water update presentation for the Town's Envir. Compliance Committee	May-04
6.5 i	Develop and implement BMPs for Public Works Yard	Jun-04

Table 3.4 BMP Implementation Schedule

Reporting Period July 2004 - June 2005		
1.3 i	Continued participation in regional working groups on municipal storm water issues	Jul-04
2.3 iii	Complaint investigation and management	Jul-04
3.3 i	Video surveillance of 20% per year of existing municipal storm sewer system	Jul-04
3.3 ii	Annual inspections of SIUs by Industrial Pretreatment Program	Jul-04
3.3 ix	Inspection program evaluation and assessment	Jul-04
3.3 vii	20% per year dry weather outfall/manhole inspections by Streets Section	Jul-04
3.3 viii	Dry weather inspections of discharge outfalls to waters of the US	Jul-04
6.1 iii	Post street sweeping information on Town web page	Jul-04
6.3 i	20% per year of municipal storm drain inlets/catch basins and lines cleaned	Jul-04
6.3 iii	20% per year wet weather inspections of the municipal storm drain system	Jul-04
6.4 ii	Survey Parks facilities	Jul-04
3.2 ii	Proposed ordinance or policy submitted to Town Council for approval	Aug-04
4.1 ii	Proposed ordinance or policy submitted to Town Council for approval	Aug-04
5.3 ii	Proposed ordinance or policy submitted to Town Council for approval	Aug-04
1.1 ii	Post information on Town's web site	Oct-04
1.1 iv	Advertise event to diverse audience (incorp SW element)	Oct-04
2.3 iv	Analyze results and develop an outreach plan to address most common complaints	Oct-04
1.1 iii	Hold household hazardous waste collection event annually (incorp SW element)	Nov-04
1.2 iii	Advertise <i>Reduce, Reuse and Recycle</i> to diverse audience	Nov-04
3.2 iii	Publish adopted ordinance or policy	Dec-04
4.1 iii	Publish adopted ordinance or policy	Dec-04
5.3 iii	Publish adopted ordinance or policy	Dec-04
6.5 ii	Develop and implement BMPs for Parks facilities	Dec-04
6.2 i	Good housekeeping training for Streets and Parks	Jan-05
6.2 ii	Training in proper pesticide and herbicide mgt	Jan-05
6.4 iii	Survey Recreation Centers	Jan-05
3.3 iii	Development of inspection schedule for other industrial users	Feb-05
3.2 iv	Develop list of occasional incidental non-storm water discharges	Mar-05
6.5 iii	Develop and implement BMPs for Recreation Centers	Mar-05
6.6 i	Develop and implement BMPs for Public Swimming Pools	Mar-05
2.3 i	Publicize how to make comments or complaints	Apr-05
3.1 ii	Field verification of map (new areas)	Apr-05
4.2 iii	Review of plans for storm water considerations during and post construction	Apr-05
4.4 iv	Inspections of permitted construction sites	Apr-05
5.1 ii	Inspection of new developments, redevelopment projects	Apr-05
5.1 iii	Inspection of post construction controls	Apr-05
5.4 i	Data gathering for identification of party responsible for maintenance of various components of existing storm drainage system	Apr-05
5.4 ii	Inputting responsible party info into system	Apr-05
6.1 i	Annual review of street sweeping schedule	Apr-05
6.4 iv	Survey Fire Departments	Apr-05
1.3 ii	Annual storm water update presentation for the Town's Enviro. Compliance Committee	May-05
1.5 i	Develop an educational packet for elementary-age school children	Jun-05
6.5 iv	Develop and implement BMPs for Fire Departments	Jun-05

Table 3.4 BMP Implementation Schedule

Reporting Period July 2005 - June 2006		
1.3 i	Continued participation in regional working groups on municipal storm water issues	Jul-05
2.3 iii	Complaint investigation and management	Jul-05
3.3 i	Video surveillance of 20% per year of existing municipal storm sewer system	Jul-05
3.3 ii	Annual inspections of SIUs by Industrial Pretreatment Program	Jul-05
3.3 iv	Inspection of other industrial users	Jul-05
3.3 ix	Inspection program evaluation and assessment	Jul-05
3.3 vii	20% per year dry weather outfall/manhole inspections by Streets Section	Jul-05
3.3 viii	Dry weather inspections of discharge outfalls to waters of the US	Jul-05
6.1 iii	Post street sweeping information on Town web page	Jul-05
6.3 i	20% per year of municipal storm drain inlets/catch basins and lines cleaned	Jul-05
6.3 iii	20% per year wet weather inspections of the municipal storm drain system	Jul-05
6.4 vi	Survey Water Treatment Plant	Jul-05
1.5 ii	Distribute packets to 23 elementary schools	Sep-05
6.5 v	Develop and implement BMPs for Public Safety Complex	Sep-05
1.1 ii	Post information on Town's web site	Oct-05
1.1 iv	Advertise event to diverse audience (incorp SW element)	Oct-05
2.3 iv	Analyze results and develop an outreach plan to address most common complaints	Oct-05
6.4 v	Survey Public Safety Complex	Oct-05
1.1 iii	Hold household hazardous waste collection event annually (incorp SW element)	Nov-05
1.2 iii	Advertise <i>Reduce, Reuse and Recycle</i> to diverse audience	Nov-05
6.5 vi	Develop and implement BMPs for Water Treatment Plant	Dec-05
6.7 i	Develop training materials for BMPs for repair and maintenance activities	Jan-06
3.3 iii	Development of inspection schedule for other industrial users	Feb-06
3.3 v	Development of inspection schedule for commercial establishments by IPP	Feb-06
3.2 iv	Develop list of occasional incidental non-storm water discharges	Mar-06
6.7 ii	Implement training program	Mar-06
2.3 i	Publicize how to make comments or complaints	Apr-06
3.1 ii	Field verification of map (new areas)	Apr-06
4.2 iii	Review of plans for storm water considerations during and post construction	Apr-06
4.3 ii	Reprinting outreach materials	Apr-06
4.4 iv	Inspections of permitted construction sites	Apr-06
5.1 ii	Inspection of new developments, redevelopment projects	Apr-06
5.1 iii	Inspection of post construction controls	Apr-06
5.4 ii	Inputing responsible party info into system	Apr-06
6.1 i	Annual review of street sweeping schedule	Apr-06
1.3 ii	Annual storm water update presentation for the Town's Enviro. Compliance Committee	May-06
1.5 iii	Develop an educational packet for high school-age school children	Jun-06

Table 3.4 BMP Implementation Schedule

Reporting Period July 2006 - June 2007		
1.3 i	Continued participation in regional working groups on municipal storm water issues	Jul-06
2.3 iii	Complaint investigation and management	Jul-06
3.3 i	Video surveillance of 20% per year of existing municipal storm sewer system	Jul-06
3.3 ii	Annual inspections of SIUs by Industrial Pretreatment Program	Jul-06
3.3 iv	Inspection of other industrial users	Jul-06
3.3 ix	Inspection program evaluation and assessment	Jul-06
3.3 vii	20% per year dry weather outfall/manhole inspections by Streets Section	Jul-06
3.3 viii	Dry weather inspections of discharge outfalls to waters of the US	Jul-06
6.1 iii	Post street sweeping information on Town web page	Jul-06
6.1 iii	Post street sweeping information on Town web page	Jul-06
6.3 i	20% per year of municipal storm drain inlets/catch basins and lines cleaned	Jul-06
6.3 iii	20% per year wet weather inspections of the municipal storm drain system	Jul-06
1.5 ii	Distribute packets to 23 elementary schools	Sep-06
1.5 iv	Distribute packets to each of the 3 high schools	Sep-06
1.1 ii	Post information on Town's web site	Oct-06
1.1 iv	Advertise event to diverse audience (incorp SW element)	Oct-06
2.3 iv	Analyze results and develop an outreach plan to address most common complaints	Oct-06
1.1 iii	Hold household hazardous waste collection event annually (incorp SW element)	Nov-06
1.2 iii	Advertise <i>Reduce, Reuse and Recycle</i> to diverse audience	Nov-06
3.3 iii	Development of inspection schedule for other industrial users	Feb-07
3.3 v	Development of inspection schedule for commercial establishments by Industrial Pretreatment Program	Feb-07
3.2 iv	Develop list of occasional incidental non-storm water discharges	Mar-07
2.3 i	Publicize how to make comments or complaints	Apr-07
3.1 ii	Field verification of map (new areas)	Apr-07
4.2 iii	Review of plans for storm water considerations during and post construction	Apr-07
4.3 ii	Reprinting outreach materials	Apr-07
4.4 iv	Inspections of permitted construction sites	Apr-07
5.1 ii	Inspection of new developments, redevelopment projects	Apr-07
5.1 iii	Inspection of post construction controls	Apr-07
5.4 ii	Inputting responsible party info into system	Apr-07
6.1 i	Annual review of street sweeping schedule	Apr-07
1.3 ii	Annual storm water update presentation for the Town's Enviro. Compliance Committee	May-07

Table 3.4 BMP Implementation Schedule

Reporting Period July 2007 - Dec 2007		
1.3 i	Continued participation in regional working groups on municipal storm water issues	Jul-07
2.3 iii	Complaint investigation and management	Jul-07
3.3 i	Video surveillance of 20% per year of existing municipal storm sewer system	Jul-07
3.3 ii	Annual inspections of SIUs by Industrial Pretreatment Program	Jul-07
3.3 iv	Inspection of other industrial users	Jul-07
3.3 ix	Inspection program evaluation and assessment	Jul-07
3.3 vi	Inspection of commercial establishments	Jul-07
3.3 vii	20% per year dry weather outfall/manhole inspections by Streets Section	Jul-07
3.3 viii	Dry weather inspections of discharge outfalls to waters of the US	Jul-07
6.3 i	20% per year of municipal storm drain inlets/catch basins and lines cleaned	Jul-07
6.3 iii	20% per year wet weather inspections of the municipal storm drain system	Jul-07
1.5 ii	Distribute packets to 23 elementary schools	Sep-07
1.5 iv	Distribute packets to each of the 3 high schools	Sep-07
1.1 ii	Post information on Town's web site	Oct-07
1.1 iv	Advertise event to diverse audience (incorp SW element)	Oct-07
2.3 iv	Analyze results and develop an outreach plan to address most common complaints	Oct-07
1.1 iii	Hold household hazardous waste collection event annually (incorp SW element)	Nov-07
1.2 iii	Advertise <i>Reduce, Reuse and Recycle</i> to diverse audience	Nov-07
5.2 i	Review of the General Plan	Dec-07
5.2 ii	Review of the Town of Gilbert Unified Land Development Code	Dec-07

4.0 OTHER SUPPORTING PROGRAMS

Several other programs have goals and objectives supportive of the Town's SWMP. The focus of each program as well as areas of overlap and/or support, are discussed below.

4.1 ROLE OF FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

In Maricopa County, the cities of Mesa, Phoenix, Tempe, Glendale, and Scottsdale are presently permitted entities under the NPDES Phase I requirements. In addition to obtaining a permit to discharge storm water, the Phase I rules also require that these cities monitor the quality of the storm water at the point it enters affected streams and rivers. Since Maricopa County has interconnected and shared drainage systems with these impacted cities, and storm water discharges potentially could reach the Salt/Gila River system, FCDMC has been working cooperatively with these municipalities to comply with NPDES regulations. FCDMC has negotiated agreements to collaborate on some of the NPDES permit requirements. The cities have agreed to locate, identify, and halt illicitly polluting discharges where they can, and FCDMC collects storm water quality data for the NPDES permit compliance and inclusion in FCDMC's Regional Storm Water Quality database. As a result of these agreements, FCDMC currently operates a network of 16 storm water quality monitoring stations throughout Maricopa County. This monitoring includes the EMF, into which Gilbert discharges.

With the new Phase II regulations, urbanized areas within Maricopa County that have been targeted for permitting include Chandler, Gilbert, Surprise, Goodyear, Paradise Valley, Peoria, and Avondale. Gilbert is presently meeting with FCDMC to determine in what ways the Town of Gilbert and FCDMC can work together toward the mutual goal of overall storm water quality improvement. It is anticipated that FCDMC will continue to collect storm water quality data as described above and that opportunities to address storm water issues on a regional basis will continue.

4.2 ROLE OF SRP

As the nation's oldest multi-purpose water reclamation project, SRP operates and maintains an irrigation system that typically delivers more than 325 billion gallons of water to municipal, industrial, agricultural, and urban irrigation systems each year.

Water in the 131-mile-long canal system is a mix from the Salt and Verde rivers, the Central Arizona Project canal, groundwater pumped from wells, and storm water and agricultural return flows. SRP takes a variety steps to protect and monitor these water resources. SRP monitors the

water quality of both surface and groundwater supplies, and has undertaken efforts to enhance the program. Wells are sampled once per year, usually during the summer in conjunction with pump testing activities, and SRP collects samples from various sites on the canals monthly. Until recently, SRP collected samples from several sites on the Salt and Verde watersheds; however, SRP now obtains this same data from the U.S. Geological Survey.

SRP performs monitoring and reporting required by various water quality protection laws, regulations, and permits. Permits or approvals are required for wastewater discharges to surface waters and municipal sewer systems, storm water discharges from construction sites, and discharges that have the potential to reach groundwater.

In response to a rapidly urbanizing community and heightened awareness of public health issues related to drinking water, SRP has expanded its monitoring program to include testing of a greater number of potential pollutants in SRP canals and wells. In addition to naturally occurring minerals, SRP tests for volatile organic chemicals, heavy metals, and select pesticides.

Although SRP does not provide drinking water directly to the public, SRP performs voluntary monitoring of the raw water delivered to municipal water treatment plants. SRP models flow conditions in the canals to help control nitrate levels in canal water upstream of water treatment plants. Although nitrate concentrations in surface water are relatively low, some groundwater wells contain relatively high concentrations and therefore must be diluted with surface water to achieve acceptable levels in the canals.

The Town of Gilbert has a positive working relationship with SRP and will continue to work with them by implementing the BMPs described in this SWMP.

4.3 ROLE OF ADOT

The Santan freeway (Loop 202) will bisect the Town of Gilbert. ADOT plans to construct a series of collection channels and detention basins along the freeway which will serve as drainage facilities for storm water runoff from the freeway. ADOT will be responsible for the management of storm water and storm water quality associated with the freeway.

4.4 ROLE OF MARICOPA COUNTY

County “islands” are present within the general Town of Gilbert boundaries where Maricopa County retains jurisdiction. The Town will continue to work with the County when storm water-related issues are identified within County islands. Cases may be referred to Maricopa County, ADEQ, and/or EPA.

4.5 ROLE OF RAILROAD

Union Pacific (formerly Southern Pacific) Railroad tracks bisect the northern half of the Town, in a northwesterly-southeasterly direction. In some areas, the tracks are a barrier to natural surface drainage flow, as previously discussed in Section 1.3. The railroad may also be a source of the following pollutants:

- chemicals from hazardous materials incidences occurring during transit
- erosion and sediment from the tracks and rights-of-way, as well as repair/maintenance activities
- debris and chemicals from dumping in the right-of-ways

The railroad will be responsible for the management of storm water and storm water quality associated with their tracks and rights-of-way. The Town will continue to work with the Railroad when storm water-related issues are identified within the rights-of-way. Cases also may be referred to ADEQ and/or EPA.

5.0 RESPONSIBLE PERSONS

Implementation of the SWMP requires multiple sections within the Town to manage the various program-related tasks and programs. Table 5-1 identifies the title and name of those individuals responsible for implementing the best management practices listed in Section 3 of this SWMP.

**Table 5-1. Responsible Persons for
Town of Gilbert's SWMP Implementation**

Capital Improvements Coordinator	Reginald Boucher
Code Compliance Administrator	Vacant
Communications Division	Greg Svelund
Engineering Manager	Rick Allred
Environmental Program Administrator	John Trujillo
Facilities Maintenance Manager	Howard Davis
Fleet Maintenance Manager	Scott Sonnenberg
Neighborhood Services Administrator	Lillian Urbina-Schuett
Parks & Recreation Director	Maury Ahlman
Planning Director	Jerry Swanson
Sanitation Superintendent	Lou Anderson
Street Superintendent	Mario Flores
Technology Services Director	Shawn Woolley
Wastewater Superintendent	Mark Horn
Water Resources Manager	Kathy Rall

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- Town of Gilbert. Civil Penalty Policy.
- Town of Gilbert. Industrial Pretreatment Program Enforcement Response Plan.
- Town of Gilbert. Municipal Code, Chapters 10, 30, 34, 50, 54 and 66.
- Town of Gilbert, various literature including the following:
How to Control Pests with Common-Sense Methods and Less-Toxic Products
Need to Drain Your Swimming Pool?
Pollution Prevention Begins With You
The Town of Gilbert Needs Your Help! (sanitary sewer overflows)
Wastewater Quality, Grease Traps, Interceptors and other Pretreatment Devices
Wildlife Habitat, Groundwater Recharge Ponds
What You Need to Know About Dry Wells
- Town of Gilbert web site at www.ci.gilbert.az.us
- US EPA, 40 CFR 122.28 et al
- U.S. Environmental Protection Agency (EPA). 2002. Model Small MS4 General Permit. May 1.
- U.S. Environmental Protection Agency (EPA), Office of Wastewater Management. Menu of BMPs and Measurable Goals.

APPENDIX A

MS4 STORM WATER REGULATIONS (40 CFR 122.34)

(ii) If you are seeking authorization to discharge under an individual permit and wish to implement a program that is different from the program under §122.34, you will need to comply with the permit application requirements of §122.26(d). You must submit both Parts of the application requirements in §§122.26(d)(1) and (2) by March 10, 2003. You do not need to submit the information required by §§122.26(d)(1)(ii) and (d)(2) regarding your legal authority, unless you intend for the permit writer to take such information into account when developing your other permit conditions.

(iii) If allowed by your NPDES permitting authority, you and another regulated entity may jointly apply under either paragraph (b)(2)(i) or (b)(2)(ii) of this section to be co-permittees under an individual permit.

(3) If your small MS4 is in the same urbanized area as a medium or large MS4 with an NPDES storm water permit and that other MS4 is willing to have you participate in its storm water program, you and the other MS4 may jointly seek a modification of the other MS4 permit to include you as a limited co-permittee. As a limited co-permittee, you will be responsible for compliance with the permit's conditions applicable to your jurisdiction. If you choose this option you will need to comply with the permit application requirements of §122.26, rather than the requirements of §122.34. You do not need to comply with the specific application requirements of §122.26(d)(1)(iii) and (iv) and (d)(2)(iii) (discharge characterization). You may satisfy the requirements in §122.26 (d)(1)(v) and (d)(2)(iv) (identification of a management program) by referring to the other MS4's storm water management program.

(4) Guidance: In referencing an MS4's storm water management program, you should briefly describe how the existing plan will address discharges from your small MS4 or would need to be supplemented in order to adequately address your discharges. You should also explain your role in coordinating storm water pollutant control activities in your MS4, and detail the resources available to you to accomplish the plan.

(c) If you operate a regulated small MS4:

(1) Designated under §122.32(a)(1), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES permit under paragraph (b)(3) of this section by March 10, 2003, unless your MS4 serves a jurisdiction with a population under 10,000 and the NPDES permitting authority has established a phasing schedule under §123.35(d)(3) of this chapter.

(2) Designated under §122.32(a)(2), you must apply for coverage under an NPDES permit, or apply for a modification of an existing NPDES permit under paragraph (b)(3) of this section, within 180 days of notice, unless the NPDES permitting authority grants a later date.

[64 FR 68843, Dec. 8, 1999]

§ 122.34 As an operator of a regulated small MS4, what will my NPDES MS4 storm water permit require?

(a) Your NPDES MS4 permit will require at a minimum that you develop, implement, and enforce a storm water management program designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. Your storm water management program must include the minimum control measures described in paragraph (b) of this section unless you apply for a permit under §122.26(d). For purposes of this section, narrative effluent limitations requiring implementation of best management practices (BMPs) are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of best management practices consistent with the provisions of the storm water management program required pursuant to this section and the provisions of the permit required pursuant to §122.33 constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable." Your NPDES permitting authority will

specify a time period of up to 5 years from the date of permit issuance for you to develop and implement your program.

(b) *Minimum control measures*—(1) *Public education and outreach on storm water impacts.* (i) 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.

(ii) *Guidance:* You may use storm water educational materials provided by your State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The public education program should inform individuals and households about the steps they can take to reduce storm water pollution, such as ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes. EPA recommends that the program inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups. EPA recommends that the public education program be tailored, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed and beach cleanups. In addition, EPA recommends that some of the materials or outreach programs be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clog-

ging storm drains and to garages on the impact of oil discharges. You are encouraged to tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

(2) *Public involvement/participation.* (i) You must, at a minimum, comply with State, Tribal and local public notice requirements when implementing a public involvement/ participation program.

(ii) *Guidance:* EPA recommends that the public be included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

(3) *Illicit discharge detection and elimination.* (i) You must develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at §122.26(b)(2)) into your small MS4.

(ii) You must:

(A) 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;

(B) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;

(C) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system; and

(D) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

(iii) You need 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).

(iv) Guidance: 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. EPA recommends visually screening outfalls during dry weather and conducting field tests of selected pollutants as part of the procedures for locating priority areas. Illicit discharge education actions may include storm drain stenciling, a program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials.

(4) *Construction site storm water runoff control.* (i) 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 dis-

turbing 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 § 122.26(b)(15)(i), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

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

(A) 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;

(B) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(C) 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;

(D) Procedures for site plan review which incorporate consideration of potential water quality impacts;

(E) Procedures for receipt and consideration of information submitted by the public, and

(F) Procedures for site inspection and enforcement of control measures.

(iii) Guidance: Examples of sanctions to ensure compliance include non-monetary penalties, fines, bonding requirements and/or permit denials for non-compliance. EPA recommends that procedures for site plan review include the review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. Procedures for site inspections and enforcement of control measures could include steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water quality. You are encouraged to provide appropriate educational and training measures for construction site

operators. You may wish to require a storm water pollution prevention plan for construction sites within your jurisdiction that discharge into your system. See § 122.44(s) (NPDES permitting authorities' option to incorporate qualifying State, Tribal and local erosion and sediment control programs into NPDES permits for storm water discharges from construction sites). Also see § 122.35(b) (The NPDES permitting authority may recognize that another government entity, including the permitting authority, may be responsible for implementing one or more of the minimum measures on your behalf.)

(5) *Post-construction storm water management in new development and redevelopment.*

(i) 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.

(ii) You must:

(A) Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;

(B) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law; and

(C) Ensure adequate long-term operation and maintenance of BMPs.

(iii) Guidance: If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. EPA recommends that the BMPs chosen: be appropriate for the local community; minimize water quality impacts; and attempt to maintain pre-development runoff conditions. In choosing appropriate BMPs, EPA encourages you to participate in locally-based watershed planning ef-

forts which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, EPA recommends that you adopt a planning process that identifies the municipality's program goals (*e.g.*, minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (*e.g.*, adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures. In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality. In addition to assessing these existing documents and programs, you should provide opportunities to the public to participate in the development of the program. Non-structural BMPs are preventative actions that involve management and source controls such as: policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; policies or ordinances that encourage infill development in higher density urban areas, and areas with existing infrastructure; education programs for developers and the public about project designs that minimize water quality impacts; and measures such as minimization of percent impervious area after development and minimization of directly connected impervious areas. Structural BMPs include: storage practices such as wet ponds and extended-detention outlet structures; filtration practices such as grassed swales, sand filters and filter strips; and infiltration practices such as infiltration basins and infiltration trenches. EPA recommends that you ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify

BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with design, construction or operation and maintenance. Storm water technologies are constantly being improved, and EPA recommends that your requirements be responsive to these changes, developments or improvements in control technologies.

(6) *Pollution prevention/good house-keeping for municipal operations.* (i) 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.

(ii) Guidance: EPA recommends that, at a minimum, you consider the following in developing your program: maintenance activities, maintenance schedules, and long-term inspection procedures for structural and non-structural 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, salt/sand storage locations and snow disposal areas operated by you, 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. Operation and maintenance should be an integral component of all storm water management programs. This measure is intended to

improve the efficiency of these programs and require new programs where necessary. Properly developed and implemented operation and maintenance programs reduce the risk of water quality problems.

(c) If an existing qualifying local program requires you to implement one or more of the minimum control measures of paragraph (b) of this section, the NPDES permitting authority may include conditions in your NPDES permit that direct you to follow that qualifying program's requirements rather than the requirements of paragraph (b) of this section. A qualifying local program is a local, State or Tribal municipal storm water management program that imposes, at a minimum, the relevant requirements of paragraph (b) of this section.

(d)(1) In your permit application (either a notice of intent for coverage under a general permit or an individual permit application), you must identify and submit to your NPDES permitting authority the following information:

(i) The best management practices (BMPs) that you or another entity will implement for each of the storm water minimum control measures at paragraphs (b)(1) through (b)(6) of this section;

(ii) The measurable goals for each of the BMPs including, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action; and

(iii) The person or persons responsible for implementing or coordinating your storm water management program.

(2) If you obtain coverage under a general permit, you are not required to meet any measurable goal(s) identified in your notice of intent in order to demonstrate compliance with the minimum control measures in paragraphs (b)(3) through (b)(6) of this section unless, prior to submitting your NOI, EPA or your State or Tribe has provided or issued a menu of BMPs that addresses each such minimum measure. Even if no regulatory authority issues the menu of BMPs, however, you still must comply with other requirements of the general permit, including good

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faith implementation of BMPs designed to comply with the minimum measures.

(3) Guidance: Either EPA or your State or Tribal permitting authority will provide a menu of BMPs. You may choose BMPs from the menu or select others that satisfy the minimum control measures.

(e)(1) You must comply with any more stringent effluent limitations in your permit, including permit requirements that modify, or are in addition to, the minimum control measures based on an approved total maximum daily load (TMDL) or equivalent analysis. The permitting authority may include such more stringent limitations based on a TMDL or equivalent analysis that determines such limitations are needed to protect water quality.

(2) Guidance: EPA strongly recommends that until the evaluation of the storm water program in §122.37, no additional requirements beyond the minimum control measures be imposed on regulated small MS4s without the agreement of the operator of the affected small MS4, except where an approved TMDL or equivalent analysis provides adequate information to develop more specific measures to protect water quality.

(f) You must comply with other applicable NPDES permit requirements, standards and conditions established in the individual or general permit, developed consistent with the provisions of §§122.41 through 122.49, as appropriate.

(g) *Evaluation and assessment*—(1) *Evaluation.* You must evaluate program compliance, the appropriateness of your identified best management practices, and progress towards achieving your identified measurable goals.

NOTE TO PARAGRAPH (G)(1): The NPDES permitting authority may determine monitoring requirements for you in accordance with State/Tribal monitoring plans appropriate to your watershed. Participation in a group monitoring program is encouraged.

(2) *Recordkeeping.* You must keep records required by the NPDES permit for at least 3 years. You must submit your records to the NPDES permitting authority only when specifically asked to do so. You must make your records, including a description of your storm water management program, available

to the public at reasonable times during regular business hours (see §122.7 for confidentiality provision). (You may assess a reasonable charge for copying. You may require a member of the public to provide advance notice.)

(3) *Reporting.* Unless you are relying on another entity to satisfy your NPDES permit obligations under §122.35(a), you must submit annual reports to the NPDES permitting authority for your first permit term. For subsequent permit terms, you must submit reports in year two and four unless the NPDES permitting authority requires more frequent reports. Your report must include:

(i) The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices and progress towards achieving your identified measurable goals for each of the minimum control measures;

(ii) Results of information collected and analyzed, including monitoring data, if any, during the reporting period;

(iii) A summary of the storm water activities you plan to undertake during the next reporting cycle;

(iv) A change in any identified best management practices or measurable goals for any of the minimum control measures; and

(v) Notice that you are relying on another governmental entity to satisfy some of your permit obligations (if applicable).

[64 FR 68843, Dec. 8, 1999]

§ 122.35 As an operator of a regulated small MS4, may I share the responsibility to implement the minimum control measures with other entities?

(a) You may rely on another entity to satisfy your NPDES permit obligations to implement a minimum control measure if:

(1) The other entity, in fact, implements the control measure;

(2) The particular control measure, or component thereof, is at least as stringent as the corresponding NPDES permit requirement; and

(3) The other entity agrees to implement the control measure on your behalf. In the reports you must submit

APPENDIX B

ADEQ NPDES STORM WATER GENERAL PERMIT FOR MS4S



**STATE OF ARIZONA
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
PHOENIX, ARIZONA 85012-2809**

**ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT FOR DISCHARGE FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
TO WATERS OF THE UNITED STATES**

In compliance with the provisions of the Arizona Pollutant Discharge Elimination System program, (Arizona Revised Statutes, Title 49, Chapter 2, Article 3.1 and Arizona Administrative Code, Title 18, Chapter 9, Articles 9 and 10), this general permit authorizes discharges certified under this general permit from those locations specified throughout the state of Arizona to waters of the United States. These discharges shall be in accordance with the conditions of this general permit.

This permit only authorizes discharges from those operators of small municipal separate storm sewer systems in Arizona who submit a complete Notice of Intent in accordance with Parts III and V of this general permit and who comply with the permit requirements and conditions of Parts IV and VI. All discharges authorized by this general permit shall be consistent with the terms and conditions of this general permit.

This general permit becomes effective on December 19, 2002.

This general permit and the authorization to discharge expire at midnight, December 19, 2007.

Issued this ____ day of _____ 2002.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Karen Smith, Director
Water Quality Division

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PART I. COVERAGE UNDER THIS GENERAL PERMIT

- A. Permit Area. This permit covers the state of Arizona, except for Indian Country.

- B. Eligibility.
 - 1. This permit authorizes the discharge of stormwater from small municipal separate storm sewer systems (MS4s) provided that the permittee complies with all the requirements of this general permit and the MS4:
 - a. Is located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census, or
 - b. Is designated for permit authorization by the Department under R-18-9-A902(D)(1), R18-9-A902(D)(2), R-18-9-A902(E), and R18-9-A905(A)(1)(f) which incorporates 40 CFR 122.32.

- C. Non-Stormwater Discharges.
 - 1. The permittee shall prohibit all types of non-stormwater discharges into its MS4 unless the discharges are authorized by a separate NPDES or AZPDES permit or not prohibited under Part I, Section C.2 or are identified by the permittee as occasional incidental non-stormwater discharges under Part V, Section B.3.a.ii.

 - 2. The following categories of non-stormwater discharges (occurring within the jurisdiction of the permittee) are only prohibited if the discharges are identified as significant contributors of pollutants to or from the MS4. If any of the following categories of discharges are identified as a significant contributor, the permittee must address the category as an illicit discharge as specified in Part V, Section B.3:
 - a. Water line flushing,
 - b. Landscape irrigation,
 - c. Diverted stream flows,
 - d. Rising ground waters,
 - e. Uncontaminated ground water infiltration,
 - f. Uncontaminated pumped groundwater,
 - g. Discharges from potable water sources,
 - h. Foundation drains,
 - i. Air conditioning condensate,
 - j. Irrigation water,
 - k. Springs,
 - l. Water from crawl space pumps,

- m. Footing drains,
- n. Lawn watering,
- o. Individual residential car washing,
- p. Discharges from riparian habitats and wetlands,
- q. Dechlorinated swimming pool discharges,
- r. Street wash water, and
- s. Discharges or flows from emergency fire fighting activities.

D. Limitations of Coverage. This general permit does not authorize:

1. Discharges mixed with sources of non-stormwater unless the non-stormwater discharges:
 - a. Comply with a separate NPDES or AZPDES permit, or
 - b. Are determined not to be a significant contributor of pollutants to waters of the United States;
2. Stormwater discharges associated with industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi);
3. Stormwater discharges associated with construction activity as defined in 40 CFR 122.26(b)(14)(x) or 40 CFR 122.26(b)(15);
4. Stormwater discharges currently covered under another permit;
5. Discharges to impaired waterbodies listed under section 303(d) of the Clean Water Act (CWA) if discharges from the MS4 contain, or may contain, pollutant(s) for which the waterbody is listed except:
 - a. If a TMDL has been established, and the stormwater management program (SWMP) is consistent with the requirements of the TMDL, including any wasteload allocation or load allocation in the TMDL. The SWMP must also identify BMPs the permittee will use to meet wasteload allocations or load allocations and include monitoring for associated pollutant(s); and
 - b. If a TMDL has not been established, and the SWMP includes a section describing how the program will control the discharge of 303(d) listed pollutants and ensure to the maximum extent practicable that discharges from the MS4 will not cause or contribute to exceedances of surface water quality standards. The SWMP must also identify BMPs the permittee will use to control discharges and include monitoring of their effectiveness;
6. Discharges that do not comply with Arizona's anti-degradation rule (R18-11-107). The anti-degradation rule may be obtained from the Department's Phoenix office or from the Department's Web site.

PART II. AUTHORIZATION UNDER THIS GENERAL PERMIT

A. Application for Coverage.

1. An applicant seeking authorization to discharge under this general permit shall submit to the Department a complete notice of intent (NOI), in accordance with the deadlines in Part III, Section A. The NOI must include the information and attachments required by Part III, Section B.

If the Department notifies an applicant (either directly, by public notice, or by making information available on the Internet) of other NOI options that become available at a later date, such as electronic submission of forms or information, the applicant may take advantage of those options to satisfy the NOI submittal requirements.

2. If an operator changes or a new operator is added after an NOI has been submitted, the permittee shall submit a new or revised NOI to the Department.
3. A discharger who submits a complete NOI and meets the eligibility requirements in Part I may discharge stormwater from a small MS4 under the terms and conditions of this general permit 30 days after the date the NOI is received by the Department. For the purposes of this permit, receipt is the day the fax was sent, the day the NOI was hand-delivered to the Department, or the day the Department signed certified mail containing the NOI. Submission of the NOI demonstrates the discharger's intent to be covered by this permit; it is not a determination by the Department that the discharger has met the eligibility requirements for the permit.
4. If the Department notifies the applicant of deficiencies or inadequacies in any portion of the NOI (including the stormwater management program), the applicant must correct the deficient or inadequate portions and submit a written statement to the Department certifying that appropriate changes have been made. The certification must be submitted within the time-frame specified by the Department and must specify how the NOI has been amended to address the identified concerns.

B. Terminating Coverage.

1. A permittee may terminate coverage under this general permit by submitting a notice of termination (NOT). Authorization to discharge terminates at midnight on the day the NOT is signed.
2. A permittee shall submit an NOT to the Department within 30 days after the permittee:
 - a. Ceases discharging stormwater from the MS4,
 - b. Ceases operations at the MS4, or
 - c. Transfers ownership of or responsibility for the facility to another operator.
3. The NOT form can be obtained from the Department and must include the following information:
 - a. Name, mailing address, and location of the MS4 for which the notification is submitted;
 - b. The name, address and telephone number of the operator addressed by the NOT;

- c. The NPDES or AZPDES permit number for the MS4;
- d. An indication of whether another operator has assumed responsibility for the MS4, the discharger has ceased operations at the MS4, or the stormwater discharges have been eliminated; and
- e. The following certification:

I certify under penalty of law that all stormwater discharges from the identified MS4 that are authorized by an AZPDES general permit have been eliminated, or that I am no longer the operator of the MS4, or that I have ceased operations at the MS4. I understand that by submitting this Notice of Termination I am no longer authorized to discharge stormwater under this general permit, and that discharging pollutants in stormwater to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by an AZPDES permit. I also understand that the submission of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.

- f. NOTs, signed in accordance with Part VI, Section L , must be sent to the Department at the following address:

Small MS4 NOT
 Surface Water Permits Unit (5415 B)
 Arizona Department of Environmental Quality
 1110 West Washington
 Phoenix, AZ 85007

PART III. NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification.

- 1. MS4s automatically designated under R18-9-A905(A)(1)(f) are required to submit an NOI and a stormwater management program or apply for an individual permit by March 10, 2003.
- 2. MS4s designated under R18-9-A902(D)(1), R18-9-A902(D)(2), or R18-9-A902(E) are required to submit an NOI and a stormwater management program within 180 days of notice (unless the Department provides additional time in the designation notice).
- 3. New MS4s and New Operators
 - a. For new MS4s within urbanized areas which commence discharges subsequent to March 10, 2003, the NOI must be submitted not later than 30 days prior to commencing discharges.
 - b. For new operators of an existing MS4, the NOI must be submitted not later than two days prior to taking operational control of the MS4.
- 4. If a late NOI is submitted, the authorization is only for discharges that occur after permit coverage is granted. The Department reserves the right to take appropriate enforcement actions for any unpermitted discharges.

B. Contents of Notice of Intent. An applicant eligible for coverage under this general permit shall submit an NOI to discharge under this general permit. The NOI shall contain the following

information:

1. The name, mailing address, and telephone number of the municipal entity applying;
2. An indication of whether the applicant is a federal, state, or other public entity;
3. The urbanized area or core municipality (if not located in an urbanized area) where the small MS4 is located; the county(ies) where the small MS4 is located, and the latitude and longitude of the approximate center of the small MS4;
4. The name of the major receiving water(s) and an indication of whether any of the receiving waters are on the latest CWA section 303(d) list of impaired waters. If the small MS4 discharges to any 303(d) listed waters, include a certification that the SWMP meets the requirements of Part I, Section D.5;
5. An indication of whether all or a portion of the small MS4 is located in Indian country;
6. If the applicant is relying on another governmental entity to satisfy one or more permit obligations (see Part V, Section D), the identity of that entity(ies) and the element(s) the entity(ies) will be implementing;
7. The name and work position or title of the contact person;
8. The signature of the certifying official, signed in accordance with the signatory requirements of Part VI, Section L; and
9. A stormwater management program (SWMP), including best management practices (BMPs) that will be implemented and the measurable goals for each of the stormwater minimum control measures specified in Part V, Section B., the month and year in which the applicant will start and fully implement each of the minimum control measures or the frequency of the action, and the name of the person(s) responsible for implementing or coordinating the SWMP.
10. The following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. In addition I certify that the permittee will comply with all terms and conditions stipulated in General Permit No. AZG2002-002 issued by the Director.

- C. Where to Submit. The applicant shall submit the signed NOI to the Department at the following address:

Small MS4 NOI
Surface Water Permits Unit, 5415B
Arizona Department of Environmental Quality
1110 West Washington
Phoenix, AZ 85007

D. Co-Permittees Under a Single NOI.

Any small MS4 that meets the requirements of Part I of this general permit may choose to partner with another regulated MS4 to develop and implement a SWMP. The MS4s may also jointly submit one NOI. If responsibilities are being shared as provided in Part V, Section D, the SWMP must describe which permittees are responsible for implementing each of the minimum measures. All small MS4 permittees are subject to the provisions in Part V, Section E.

PART IV. SPECIAL CONDITIONS

Total Daily Maximum Loads (TMDLs) Allocations Established after Permit Issuance. If a TMDL is established for any waterbody into which the permittee discharges prior to the date that the permittee or applicant submits an NOI, and if that TMDL includes a wasteload allocation or load allocation for a parameter likely to be discharged by the MS4, the permittee must meet the requirements of the TMDL and/or its associated implementation plan. If a TMDL is approved for any waterbody into which the permittee discharges after the date that the permittee or applicant submits an NOI, the Department may require revisions to the SWMP to ensure that the wasteload allocation, load allocation and/or the TMDL's associated implementation plan will be met. Monitoring of the discharges may also be required, as appropriate, to ensure compliance with the TMDL.

PART V. STORMWATER MANAGEMENT PROGRAM (SWMP)

A. General Requirements. An applicant shall develop, and a permittee shall implement, and enforce a SWMP designed to reduce the discharge of pollutants from a small MS4 to the maximum extent practicable (MEP) to protect water quality. The SWMP shall include management practices; control techniques; system, design, and engineering methods; and other provisions the Department determines appropriate for the control of pollutants.

1. A permittee must fully implement the SWMP, including its measurable goals, no later than December 19, 2007 (except as provided under Part V, Section A.2).
2. If a permittee is required to obtain permit coverage after March 10, 2003, the permittee shall implement the SWMP, including its measurable goals, for the period between the date of authorization to discharge and the expiration date of this permit. For example, if the permittee was authorized to discharge under this permit on March 10, 2006 the measurable goals established in the SWMP for the period between 2006 and the expiration date of this general permit must be met.
3. The SWMP shall address each of the minimum control measures of Part V, Section B and must include measurable goals, including interim milestones, for each BMP, including as appropriate, the months and years in which the MS4 will undertake the required actions and the frequency of the action. The name and title of the person or persons responsible for implementing the SWMP shall also be included.
4. The permittee shall protect water quality by ensuring, to the maximum extent practicable, that no discharge shall cause or contribute to an exceedance of applicable water quality standard. To do so, the permittee shall fully implement all SWMP and permit requirements in accordance with the established time frames.

B. Minimum control measures.

1. Public Education and Outreach on Stormwater Impacts. The permittee or applicant, as applicable, shall:

- a. Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impact of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff.;
 - b. Include the following information in the SWMP:
 - i. A description of the education program and outreach activities;
 - ii. A description of the methods for disseminating information;
 - iii. The target audiences and target pollutants and sources that the applicant will address in the program, and how they were selected;
 - iv. An estimation of the number of people with whom the applicant intends to communicate;
 - v. A list of measurable goals for the public education and outreach program;
 - vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals
 - vii. The name(s) and title(s) of the person(s) responsible for implementing and coordinating the education activities.
2. Public Involvement/Participation. The permittee or applicant, as applicable, shall:
- a. Develop and implement a plan to encourage public involvement and participation in the development and implementation of the SWMP;
 - b. Comply with state and local public notice requirements when implementing the public involvement/participation program.
 - c. Include the following information in the SWMP:
 - i. A description of the general plan for informing the public of involvement and participation opportunities;
 - ii. The types of activities for public involvement that the program will include and the target audiences;
 - iii. A description of the procedure for receiving and reviewing public comments;
 - iv. An explanation of how interested parties may access the SWMP and NOI;
 - v. A list of measurable goals for the public involvement/participation program;
 - vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals and;
 - vii. The name(s) and title(s) of the person(s) responsible for implementing and coordinating the public involvement/participation activities.
3. Illicit Discharge Detection and Elimination. The permittee or applicant, as applicable, shall:

- a. Develop, implement, and enforce a program to detect and eliminate illicit discharges into the small MS4, except those discharges listed below:
 - i. Non-stormwater discharges as listed in Part I, Section C.2 ; This exception does not apply to those categories of discharge which the permittee or applicant has determined to be a significant contributor of pollutants to the small MS4; or
 - ii. Occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) that the permittee does not expect (based on information available to the permittee) to be a significant contributor of pollutants to the small MS4 because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the small MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.).
- b. 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;
- c. To the extent allowable under state or local law, effectively prohibit through ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions;
- d. Develop and implement a plan to detect, identify the source of, and address non-stormwater discharges, including illegal dumping, to the system;
- e. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;
- f. Conduct dry weather field screening for non-stormwater flows. The screening must include qualitative field tests based on color, odor, or visually observed characteristics as indicators of discharge sources. If the qualitative field tests do not provide enough information for the permittee to determine the source of the discharge, the permittee must test the discharge, while in the field, for selected chemical parameters. The permittee must investigate the illicit discharge within 15 days of its detection, and must follow up investigation with an action to further study the source of the discharge or eliminate it.
- g. Include the following information in the SWMP:
 - i. A description of detection methods;
 - ii. A description or citation of the established ordinance or other regulatory mechanism used to prohibit illicit discharges. If the permittee needs to develop this mechanism, describe the plan and a schedule to do so.
 - iii. A description of enforcement policy and jurisdiction;
 - iv. A description of the non-stormwater discharges allowed in the small MS4 pursuant to Part V, Section B.3.a.i;
 - v. A description of the non-stormwater discharges allowed in the small MS4 pursuant to Part V, Section B.3.a.ii;

- vi. The methods for informing/training employees about illicit discharges;
 - vii. The methods for informing the public of hazards associated with illegal discharges and improper disposal of waste;
 - viii. A list of measurable goals for the illicit detection and elimination program;
 - ix. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and
 - x. The name(s) and title(s) of the person(s) responsible for implementing and coordinating illicit discharge detection and elimination activities.
4. Construction Site Stormwater Runoff Control. The permittee or applicant, as applicable, shall:
- a. Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the 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 Department waives requirements for stormwater discharges associated with small construction activity, defined under 40 CFR 122.26(b)(15)(i), the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from these sites;
 - b. Using an ordinance or other regulatory mechanism available under the legal authorities of the small MS4, require construction site operators to practice erosion and sediment control and require construction site operators to control waste and properly dispose of wastes, 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. This ordinance must apply, at a minimum, to those sites described in Part V, Section B.4.a.
 - c. Review all site plans for those sites described in Part V, Section B.4.a. for potential water quality impacts, including erosion and sediment control, control of other wastes, and any other impacts that must be examined according to the requirements of the law or ordinance of Part V, Section B.4.b. Before ground is broken at the construction site, the small MS4 operator shall review the plans and, verify (in written communication with the construction site operator) that the BMPs for the site are appropriate;
 - d. Develop and implement procedures for site inspection and enforcement of control measures for those sites described in Part V, Section B.4.a.;
 - e. Include the following information in the SWMP:
 - i. A description or citation of the established ordinance or other regulatory mechanism used to prohibit erosion and ensure proper management of wastes on construction sites per Part V, Section 4.b. If the permittee needs to develop the required regulatory mechanism, describe the plan and a schedule to do so;
 - ii. A description of the sanctions and enforcement mechanism(s) to ensure compliance;

- iii. A description of the procedures for site inspection and enforcement of control measures, and procedures for site plan reviews;
 - iv. Procedures for receipt, acknowledgment and consideration of information submitted by the public,
 - v. A list of measurable goals for the construction site runoff control program;
 - vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and
 - vii. The name(s) and title(s) of the person(s) responsible for overseeing construction site runoff control activities.
5. Post-Construction Stormwater Management in New Development and Redevelopment. The permittee or applicant, as applicable, shall:
- a. Develop, implement, and enforce a program to address stormwater 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, and discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts;
 - b. Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the community;
 - c. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under the legal authorities of the small MS4;
 - d. Ensure adequate long-term operation and maintenance of BMPs; and
 - e. Include the following information in the SWMP:
 - i. A description of the management practices to reduce post-construction runoff from new development and redevelopment projects within the MS4; address any specific priority areas and tailor to the local community;
 - ii. A description or citation of the established ordinance or other regulatory mechanism used to address post-construction runoff control. If the permittee needs to develop the required regulatory mechanism, describe the plan and a schedule to do so;
 - iii. A description of the procedure to ensure compliance with local requirements;
 - iv. A description of the education program for developers, architects and the public about project designs that minimize water quality impacts;
 - v. An identification of the measurable goals for the post-construction runoff control program;
 - vi. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and

- vii. The name(s) and title(s) of the person(s) responsible for the development, implementation, and enforcement of post-construction stormwater management.
- 6. Pollution Prevention/Good Housekeeping for Municipal Operations. The permittee or applicant, as applicable, shall:
 - a. 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 due to activities, including but not limited to, park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The permittee shall address the following topics in the program:
 - i. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the small MS4;
 - ii. Controls to reduce or eliminate the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt and sand storage locations and snow disposal areas; and
 - iii. Procedures to properly dispose of waste removed from the small MS4 and municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris.
 - b. Include the following information in the SWMP:
 - i. A list of the municipal operations impacted by this operation and maintenance program;
 - ii. A description of the training program for municipal employees
 - iii. A list of measurable goals for the municipal pollution prevention program;
 - iv. Dates, in terms of months and years, by which the permittee will achieve specific measurable goals; and
 - v. The name(s) and title(s) of the person(s) responsible for implementing and coordinating employee training and pollution prevention activities.
- C. Qualifying State or Local Program. The permittee may substitute the BMPs and measurable goals of an existing stormwater pollution control program to qualify for compliance with one or more of the minimum control measures if the existing measure meets the requirements of the minimum control measure as established in Part V, Section B.
- D. Sharing Responsibility. Implementation of one or more of the minimum measures may be shared with another entity, or the entity may fully take over the measure. A permittee may rely on another entity only if:
 - 1 The other entity, in fact, implements the control measure;
 - 2 The control measure, or component of that measure, is at least as stringent as the

corresponding permit requirement;

3. The other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is expected. The permittee shall maintain this obligation as part of the SWMP description. If the other entity agrees to report on the minimum measure, the permittee shall supply the other entity with the reporting requirements in Part V, Section G of this general permit. The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.

E. Reviewing and Updating SWMPs.

1. The permittee shall annually review the SWMP in conjunction with preparation of the annual report required under Part V, Section G.
2. The permittee may change the SWMP during the life of the permit according to the following procedures:
 - a. Changes adding (but not subtracting) components, controls, or requirements to the SWMP may be made at any time upon written notification to the Department;
 - b. Changes replacing an ineffective or infeasible management practice specifically identified in the SWMP with an alternate management practice may be made at any time, as long as the permittee submits a written analysis to the Department explaining why the management practice is ineffective or infeasible (including cost prohibitive), and why the replacement management practice is expected to achieve the goals of the management practice to be replaced;
 - c. Change notifications must be signed in accordance with Part VI, Section L;
3. The Department may notify a permittee that changes to the SWMP are necessary:
 - a. To address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
 - b. To include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; and
 - c. If, at any time, the Department determines that the SWMP does not meet permit requirements.
4. The notification described above in Part V, Section E.3 will need to be addressed by the permittee in one of the following manners:
 - a. If the Department specifies changes that are to be made to the SWMP (including changes in implementation schedules), the permittee shall, within 60 days (or a later date if provided by the Department) certify that it has made changes as required by the Department. Changes must go into effect 30 days from the date the permittee certifies that changes have been made to the SWMP.
 - b. If the permittee proposes an alternative to the Department's required change (including changes in implementation schedule), the proposed alternative must be received by the Department within 60 days of notification of the required change. If the Department approves the proposed alternative, the changes to the SWMP must go into effect 30 days from the date the Department approved the proposal. If the Department does not approve the proposed alternative, the permittee must make

changes to the SWMP as specified by the Department. Certification that changes have been made to the SWMP must be received within 60 days of the date the permittee received notification that the proposal had been rejected. Changes must go into effect 30 days from the date the permittee certifies that changes have been made to the SWMP.

5. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation. The permittee must implement the SWMP in all new areas added to the permittee's portion of the MS4 (or for which the permittee becomes responsible for implementation of stormwater quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.
 - a. Within 90 days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee must have a plan for implementing the SWMP in all affected areas. The plan may include schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP must be included in the annual report.
 - b. Only those portions of the SWMP specifically required as permit conditions shall be subject to the modification requirements of 40 CFR 124.5. Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.

F. Monitoring.

1. The permittee must evaluate program compliance, the appropriateness of identified BMPs, and progress toward achieving identified measurable goals. If the permittee discharges to a water for which a TMDL has been established, the permittee must monitor to determine if the stormwater controls are adequate to maintain compliance with the MS4's wasteload allocation or load allocation. If the permittee discharges to a 303(d) listed water that contains, or may contain, pollutant(s) for which the waterbody is listed, the permittee must monitor to determine if BMPs are effective to control discharges of pollutants of concern.
2. If the permittee conducts analytical monitoring at the permitted small MS4, the permittee must comply with the following:
 - a. *Representative monitoring.* Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. *Test Procedures.* Monitoring results shall be conducted according to test procedures approved in R18-9-A905(B) or other test procedures mutually agreed upon by the Director and the permittee or applicant.
 - c. *Discharge Monitoring Report.* Monitoring results must be reported on a Discharge Monitoring Report (DMR) when monitoring is performed in accordance with a TMDL requirement.
3. Records of analytical monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The names(s) of the individual(s) who performed the sampling or measurements;

- c. The date(s) analyses were performed;
 - d. The name(s) of the individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

G. Annual Reports.

1. The permittee must submit annual reports to the Department for each year of the permit term. The first report is due September 30, 2004, covering the activities of the permittee during the period beginning on the effective date of the permit for the permittee and ending June 30, 2004. Subsequent annual reports are due on September 30 of each year following 2004 during the remainder of the term of the permit and must cover the activities of the permittee for the previous year up to and including June 30. The report must include:
- a. The status of compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP and protecting water quality, and the measurable goals for each of the minimum control measures,
 - b. Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;
 - c. Any changes made to the SWMP since the last annual report and a summary of the stormwater activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);
 - d. Proposed changes to the stormwater management program, including changes to any BMPs or any identified measurable goals that apply to the program elements;
 - e. A description of BMPs to be implemented within new areas annexed over the past year that are located within the regulated boundaries of the MS4;
 - f. A description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable TMDLs; and
 - g. Notice that the permittee is relying on another government entity to satisfy some of the permit obligations (if applicable).
2. Where to Submit. Annual reports shall be signed in accordance with Part VI, Section L.2 and sent to the Department at the following address:

Arizona Department of Environmental Quality
Compliance Data Unit
1110 West Washington
Phoenix, AZ 85007

PART VI. STANDARD PERMIT CONDITIONS

A. Duty to Comply.

1. Failure to comply with any applicable term or condition of this permit shall be a violation of this permit and shall be grounds to enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.
2. The issuance of this general permit does not waive any federal, state, county, or local regulations or permit requirements with which a permittee discharging under this general permit is required to comply.

B. Duty to Reapply. If a permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

C. Continuation of an Expired General Permit.

1. If the Director does not reissue this general permit before the expiration date, the current general permit will be administratively continued and remain in force and effect until the general permit is reissued.
2. Any permittee granted general permit coverage before the expiration date automatically remains covered by the continued general permit until the earlier of:
 - a. Reissuance or replacement of the general permit, at which time the permittee shall comply with the NOI conditions of the new general permit to maintain authorization to discharge; or
 - b. The date the permittee has submitted a Notice of Termination; or
 - c. The date the Director has issued an individual permit for the discharge; or
 - d. The date the Director has issued a formal permit decision not to reissue the general permit, at which time the permittee shall seek coverage under an alternative general permit or an individual permit.
3. Upon reissuance of a new general permit, the permittee shall file an NOI, within 60 days of the effective date of the new general permit.

D. Need to Halt or Reduce an Activity Is Not a Defense. It is not a defense for a permittee in an enforcement action to plead that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this general permit.

E. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this general permit that has a reasonable likelihood of adversely affecting human health or the environment.

F. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the conditions of the permittee's SWMP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

G. Permit actions.

1. This general permit may be reopened (in accordance with A.A.C. R18-9-A905(3)(a) which incorporates 40 CFR 122.41(f)) to address any changes in state or federal plans, policies, or regulations that would affect the quality requirements for the discharge.
2. This general permit may be modified by the Director before the expiration date to include discharge or receiving water limitations for toxic constituents determined to be present in significant amounts in the discharge.
3. This general permit may be modified, revoked and reissued, or terminated for cause.
4. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

H. Property Rights. The issuance of this general permit does not convey any property rights or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, Indian tribe, or local laws or regulations.

I. Duty to Provide Information. The permittee must promptly furnish the Department with the following information:

1. Upon request, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this general permit, or to determine compliance with this general permit.
2. Upon request, copies of records required by this general permit.
3. In the event that the permittee becomes aware that the permittee failed to submit any relevant facts in the NOI or submitted incorrect information in the NOI or in any other report to the Department, such facts or information.

J. Inspection and Entry. The permittee shall allow the Director or the Director's designee, upon presentation of credentials and other documents as required by law, to:

1. Enter the permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this general permit;
2. Have access to and copy, at reasonable times, any records required by this general permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this general permit; and
4. Sample or monitor, at reasonable times, to assure permit compliance or as otherwise authorized under A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Articles 9 and 10, any substances or parameters at any location.

K. Recordkeeping.

1. The permittee shall retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES or AZPDES permit, and records of all data used to complete the application (NOI) for this permit, for a period of at least three years from the

date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended at the request of the Department at any time.

2. The permittee shall submit its records to the Department only when specifically asked to do so. The permittee must retain the SWMP required by this permit (including a copy of the permit language) at a location accessible to the Department. The permittee must make its records, including the notice of intent (NOI) and the SWMP, available to the public.
- L. Signatory Requirements. All NOIs, NOTs, reports required by the general permit, and other information requested by the Director shall be signed as follows:
1. NOIs and NOTs:
 - a. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official.
 2. Reports and other information.
 - a. All reports required by this general permit and other information requested by the Department or authorized representative of the Department shall be signed by a person described in Part VI, Section L.1 or by a duly authorized representative of that person.
 - b. A person is a duly authorized representative only if the authorization is made in writing by a person described in Part VI, Section L.1. The authorization shall specify either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the permittee.
 3. Changes to Authorization. If the information on the NOI filed for general permit coverage is no longer accurate because a different operator has responsibility for the overall operation of the facility, a new authorization satisfying the requirement of Part VI, Section L.2.b. above must be submitted to the Department prior to or together with any reports, information, or notices of intent to be signed by an authorized representative.
 4. Certification. Any person (as defined above in Part VI, Sections L.2.a and L.2.b) signing documents under this Section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
- M. Reporting.
1. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

2. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate other requirements that may be necessary to comply with the permit. (In some cases, modification or revocation and reissuance is mandatory.)
 3. Other information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Director, the permittee shall promptly submit the facts or information.
- N. Severability. The provisions of this general permit are severable, and if any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of the provision to other circumstances, and the remainder of this general permit shall not be affected.
- O. Requiring Coverage Under an Individual Permit.
1. The Director may require a person authorized by a general permit to apply for and obtain an individual permit for any of the following cases:
 - a. A change occurs in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;
 - b. Effluent limitation guidelines are promulgated for point sources covered by the general permit;
 - c. An Arizona Water Quality Management Plan containing requirements applicable to the point sources is approved;
 - d. Circumstances change after the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;
 - e. If the Director determines that the discharge is a significant contributor of pollutants. When making this determination, the Director shall consider:
 - i. The location of the discharge with respect to waters of the United States,
 - ii. The size of the discharge,
 - iii. The quantity and nature of the pollutants discharged to waters of the United States, and
 - iv. Any other relevant factor.
 2. If an individual permit is required, the Director shall notify the discharger in writing of the decision. The notice shall include:
 - a. A brief statement of the reasons for the decision,
 - b. An application form,
 - c. A statement setting a deadline to file the application,

- d. A statement that on the effective date of issuance or denial of the individual permit, coverage under the general permit will automatically terminate,
 - e. The applicant's right to appeal the individual permit requirement with the Water Quality Appeals Board under A.R.S. § 49-323, the number of days the applicant has to file a protest challenging the individual permit requirement, and the name and telephone number of the Department contact person who can answer questions regarding the appeals process; and
 - f. The applicant's right to request an informal settlement conference under A.R.S. §§ 41-1092.03(A) and 41-1092.06.
3. The discharger shall apply for an individual permit within 90 days of receipt of the notice, unless the Director grants a later date. In no case shall the deadline be more than 180 days after the date of the notice.
 4. If the permittee fails to submit the individual permit application within the time period established in Part V, Section Q.3, the applicability of the general permit to the permittee is automatically terminated at the end of the day specified by the Director for application submittal.
 5. Coverage under the general permit shall continue until an individual permit is issued unless the general permit coverage is terminated under Part V, Section Q.4.
- P. Request For an Individual Permit.
1. An owner or operator authorized by a general permit may request an exclusion from coverage of a general permit by applying for an individual permit.
 - a. The owner or operator shall submit an individual permit application under R18-9-B901(B) and include the reasons supporting the request no later than March 10, 2003.
 - b. The Director shall grant the request if the reasons cited by the owner or operator are adequate to support the request.
 2. If an individual permit is issued to an owner or operator otherwise subject to a general permit, the applicability of the general permit to the discharge is automatically terminated on the effective date of the individual permit.
- Q. Other Environmental Laws. No condition of this general permit releases the permittee from any responsibility or requirements under other environmental statutes or regulations. For example, this permit does not authorize the "take" of endangered or threatened species as prohibited by section 9 of the Endangered Species Act, 16 U.S.C. 1538. Information regarding the location of endangered and threatened species and guidance on what activities constitute a "take" are available from the U.S. Fish and Wildlife Service.

PART VII. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

Any permit noncompliance constitutes a violation and is grounds for an enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

- A. Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 2, 3 or 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed

\$25,000 per day per violation.

- B. Criminal Penalties. Any a person who violates a condition of this general permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 2, Articles 9 and 10 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.

PART VIII. DEFINITIONS

In addition to the definitions contained in A.R.S. 49-255 and A.A.C. R18-9-A901, all definitions contained in section 502 of the Act and 40 CFR 122 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the statute or regulation takes precedence.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Control Measure as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

CWA means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq.

Department as used in this permit, means the Arizona Department of Environmental Quality.

Discharge when used without qualification means the discharge of a pollutant,

Discharge of a Pollutant means

1. Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or
2. Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Discharge-related activities include: activities which cause, contribute to, or result in stormwater point source pollutant discharges; and measures to control stormwater discharges, including the siting, construction and operation of best management practices (BMPs) to control, reduce or prevent stormwater pollution.

Facility means any NPDES or AZPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES or AZPDES program.

Illicit connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit discharge means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES or AZPDES permit (other than the NPDES or AZPDES permit for discharges from the municipal separate storm sewer) and discharges

resulting from fire fighting activities,

Indian country means:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.

Large or Medium Municipal Separate Storm Sewer System means all municipal separate storm sewers as defined at 40 CFR 122.26(b)(4) or (7)

MEP means maximum extent practicable, the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design, and engineering methods, and other provisions that the state determines appropriate for the control of such pollutants.

Measurable goal means a quantitative measure of progress in implementing a component of a stormwater management program.

MS4 means municipal separate storm sewer system.

Municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, and storm drains):

1. Owned or operated by a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the Clean Water Act (33 U.S.C. 1288) that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. That is not a combined sewer; and
4. That is not part of a publicly owned treatment works.

NOI means Notice of Intent to be covered by this permit (see Part II).

NOT means Notice of Termination.

Outfall means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States,

Owner or operator means the owner or operator of any facility or activity subject to regulation under the NPDES program.

Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated

animal feeding operation, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

Pollutant is defined at R18-9-A901(22). A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

Significant contributors of pollutants means any discharge that causes or could cause or contribute to a violation of surface water quality standards.

Small Municipal Separate Storm Sewer System all separate storm sewers that are:

- 1 Owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- 2 Not defined as large or medium municipal separate storm sewer systems in accordance with this permit;
- 3 This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Management Program (SWMP) means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.

Waters of the United States which is interchangeable with the term “navigable waters” means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (1) through (4) of this definition;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1. through 6. of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR 423, which also meet the criteria of this definition) are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination

of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.