

City of Abilene Storm Water Management Program (SWMP)

Revised May 08, 2009



CITY OF ABILENE

STORM WATER MANAGEMENT PROGRAM

The City of Abilene (City) has developed specific management programs that control the discharge of pollutants to its MS4. Taken together, these specific programs form the City's Storm Water Management Program (SWMP). The City has developed its SWMP in accordance with requirements set forth in 40 CFR 122.26. Approval of this SWMP by TCEQ, its incorporation into the City's Texas Pollutant Discharge Elimination System (TPDES) permit to discharge storm water, and the City's compliance with the schedules and programs identified in the SWMP shall be deemed as full compliance with Section 402 (p)(3)(B) of the Clean Water Act and Parts II.A and II.B of the TPDES permit. The specific programs included in the City's SWMP are addressed in this program.

By submitting this stormwater management program and accepting a TPDES permit for its municipal separate storm sewer system Abilene does not waive, and expressly reserves its rights under the United States Constitution, including its rights under the Tenth Amendment.

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I. STRUCTURAL CONTROLS

This section describes a program for maintaining and operating existing structural stormwater controls in a manner to reduce the discharge of pollutants to the maximum extent practicable. This program has been developed in compliance with 40 CFR §122.26(6) (2)(iv)(A)(1) and Part III.B.1 of the City's TPDES permit.

Program Components

The following specific components are included for this portion of the SWMP.

- The Stormwater Utility Division (SWUD) of the Public Works Department will maintain natural and improved drainage ditches, borrow ditches, culverts and flood control structures that are publicly controlled. This includes publicly controlled detention basins within Abilene. Specific tasks performed by the Stormwater Utility Division that provide water quality benefits will include the stabilization of slopes; the removal of sediment, debris, and litter (floatables) from drainage conveyances; maintaining the borrow ditches by grading and mowing; and the repair of associated structures.
- The Stormwater Utility Division will maintain all publicly controlled curb inlets and storm drains. Specific tasks to be performed by the Stormwater Utility Division that will provide water quality benefits will include cleaning out the curb inlets and storm drains.

Program Schedule

Both of the maintenance programs identified in this section are currently being conducted on an on-going basis. Since the primary focus of the program has been one of flood control, the activities are prioritized based upon the potential impact on the hydraulic capacity of the MS4 and citizen complaints. As a result, those areas that tend to accumulate the most debris are addressed more frequently, while some areas may not require, and may not receive, any maintenance in a given year. At a minimum, the City will inspect all publicly-controlled detention basins semi-annually. Appropriate maintenance activities, if any, will be scheduled within one month of the inspection. The City will continue these programs during the term of the permit.

Performance measures

The City will track the following performance measures annually during the term of the permit.

- Number of publicly-controlled detention basins inspected.
- Cubic yards of debris and sediment removed from drainage ways, including detention basins, ditches, channels, culverts, inlets, and storm drains.
- Square yards of slope stabilization completed.
- Miles of creek channel maintenance.
- Acres maintained by mowing.

II. AREAS OF NEW DEVELOPMENT AND SIGNIFICANT REDEVELOPMENT

This section describes a program for providing a plan for controlling the discharge of pollutants to the MS4 from areas of new development or areas of significant redevelopment. This program has been developed in compliance with 40 CFR §122.26 (d)(2)(iv)(A)(1) and Part III.B.2 of the City's TPDES permit.

Program Components

The City has been concerned about the quality of its storm water runoff for many years since all of the runoff from the urban area flows into Lake Fort Phantom Hill (LFPH), the City's source of drinking water. As a result of this concern, the City implemented a comprehensive sampling program for area creeks in 1969. In addition, the City has required that certain planning activities be conducted as part of the process through which new developments and areas of significant redevelopment are approved.

During the preparation of the City's Part 2 Application, the City completed a planning process to evaluate the impact that its development ordinances may have on water quality within its MS4. This planning process involved the identification of existing ordinances and the development approval process; the gathering of additional water quality data; an evaluation of both historical and the additional water quality data; and an evaluation of changes that could be implemented to meet specific water quality objectives.

The existing ordinances and development approval process include the following requirements:

All private and public development or redevelopment is subject to either the City's Subdivision Ordinance or Building Code. In either case, the developer is required to comply with the City's published Drainage Standards. Compliance with the Drainage Standards requires the submittal and approval of a Drainage Plan or a drainage flow diagram. Drainage Plans are required for sites, which are greater than one-half acre or result in the addition of more than 5,000 square feet of impervious cover. The Drainage Plan must be designed by a registered professional engineer and must address the hydrologic and hydraulic impacts of the proposed development and identify measures to mitigate any potential adverse impact. In addition, an Erosion and Sedimentation Control Plan must be developed as part of the Drainage Plan. Drainage flow diagrams must be submitted for sites of one-half acre or less with less than 45 percent impervious cover or improvements with less than 5,000 square-feet of impervious cover. The flow diagrams must demonstrate that adverse impacts due to the development will be mitigated; however, the submittal requirements are less stringent due to the nature of the smaller projects.

The City's review of the available water quality data did not identify any significant areas of concern. Based on this finding, the City of Abilene has concluded that its existing ordinances are adequately controlling the discharge of pollutants to its MS4 from areas of new development and significant redevelopment.

In response to the City's ordinances, numerous grass-lined detention basins and drainage swales have been constructed. These structures are obviously contributing to the maintenance of good water quality characteristics within the City's MS4.

The Planning and Zoning Division recently passed a new Landscape Ordinance, which requires a set "green space" from the street to the Parkway. Parameters have been set which require that a certain amount of property be allocated for landscaping. Each zone (agriculture, light commercial, industrial, etc.) has different parameters that must be met. A side benefit to this new ordinance is that it provides for a grass swale filtration prior to any runoff entering the MS4. The new ordinance will help meet the City's MS4 permit requirements by reducing pollutants that enter the MS4 and lowering the hydrological runoff of the site.

As a result, the City will continue to enforce its existing development ordinances. The City will indicate in its annual report whether water quality conditions within its MS4 have changed significantly enough to warrant a re-evaluation of this conclusion.

Program Schedule

The City is currently enforcing its development ordinances and will continue this program during the term of the permit. In addition, the City will evaluate its planning process on an on-going basis based on additional water quality data obtained during each year of the permit term.

III. ROADWAYS

This section describes a program for controlling the contribution of pollutants from public streets and highways. The program was developed in compliance with 40 CFR §122.26 (d)(2)(iv)(A)(3) and Part III.B.3 of the City's TPDES permit.

Program Components

The following specific components are included for this portion of the SWMP.

- A street sweeping program will be continued during the term of the permit. The central business district will be swept a minimum of two times per week, while the high traffic transportation arteries will typically be swept once every four weeks. Residential areas will be swept on an as needed basis, generally in response to complaints received at the city office.
- Meltdown 20 (Magnesium Chloride) is used for snow and ice control. Meltdown 20 is an environmental friendly alternative that is 75% less corrosive than salt as tested by TxDOT and dissipates after usage. During significant icing conditions, the Street & Maintenance Services Division will only use Grade 6 rock on major streets to improve traction. The Grade 6 rock will only be utilized if weather conditions drop below -10° Fahrenheit and if Meltdown 20 is not available. If conditions meet these parameters, the City is more likely to close streets prior to applications of the Grade 6 rock. Therefore, use of this material should not impact water quality significantly, and the material will be removed as the weather improves.
- All major roadway repairs are subject to the City's Drainage Standards, which identify appropriate erosion and sedimentation controls to be used during construction. Minor roadway repairs such as the repair of potholes are generally of short duration. Due to the nature of the work, City crews are instructed not to begin this type of work when rain is forecasted. Since minor roadway repairs should have very limited exposure to rainfall, these activities are not expected to contribute significant pollutant loads to the MS4.

Program Schedule

The City is currently performing all aspects of the programs identified and will continue the programs during the term of the permit.

Performance Measures

The City will track the following performance measures annually during the term of the permit.

- The number of curb miles swept.
- Cubic yards of material collected during sweeping activities.
- The amount in pounds of Meltdown 20 utilized.

IV. FLOOD CONTROL PROJECTS

This section describes a planning process to limit the contribution of pollutants to the Abilene MS4 through flood management structures and projects. The program was developed in compliance with 40 CFR §122.26(d)(2)(iv)(A)(4) and Part III.B.4 of the City's TPDES permit.

Program Components

During the preparation of the City's Part 2 Application, the City completed a planning process to evaluate the possibility of addressing specific water quality concerns through modifications to its structural controls. This planning process involved the identification of existing structural controls; the gathering of additional water quality data; an evaluation of both historical and the additional water quality data; and an evaluation of modifications that could be implemented to meet specific water quality objectives.

Based on an evaluation of data collected by the sampling program conducted by the City since 1969, as well as the results of the characterization data obtained in preparation of the Part 2 Application, no specific water quality problems that could be effectively addressed through retrofitting of flood management projects have been identified.

The City will continue to review water quality data to evaluate the need for retrofitting existing flood management projects.

The City currently requires contractors to submit plans for controlling non-point source pollution on new flood management projects. Project approval is contingent upon the authorization of these plans. City Inspectors include proper plan implementation in their regular inspections of such projects.

Program Schedule

The City will assess, on an on-going basis, whether it should retrofit existing flood management projects to enhance water quality benefits and incorporate water quality-related features in future flood management projects. The water quality data obtained during each year of the permit term will form the basis for this assessment.

Plans for controlling non-point source pollution will be integrated into all new flood management projects for the term of the permit.

V. PESTICIDE, HERBICIDE, AND FERTILIZER APPLICATION

This section describes a program for controlling discharges of pesticides, herbicides, and fertilizers to the MS4. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(A)(6) and Part III.B.5 of the City's TPDES permit.

Program Components

In the State of Texas, the primary responsibility for regulating the application of pesticides and herbicides by commercial applicators has been reserved by the State. In fact, the State Legislature recently enacted legislation prohibiting cities from directly regulating the use of pesticides and herbicides by commercial companies or individuals. Given the breadth of the state regulations and the legislative constraints, the following specific program components are included in the SWMP.

- The City will ensure that staff members that apply pesticides and herbicides are properly licensed by the state during the term of this permit.
- The City will minimize the amount of fertilizer used on municipal grounds by basing the application rates on periodic soil tests to determine the minimum amount of fertilizer required.
- Detailed information about the proper use of pesticides, herbicides, and fertilizers, are integrated into the Water Utility Department's XERISCAPE program. Coalitions are being developed with local gardening clubs, the County's Master Gardener Program, the Taylor County Extension Office, and nursery owners to increase public exposure to XERISCAPE principles.

Program Schedule

The schedule for the public education program is included in the section entitled Public Education. The City is currently performing all aspects of the other two programs identified and will continue the programs during the term of the permit.

Performance Measures

The City will track the following performances annually during the term of the permit.

- Number of City employees licensed by the state to apply pesticides and herbicides.

VI. ILLICIT DISCHARGES AND IMPROPER DISPOSAL

The federal regulations require that the SWMP contain various storm water management programs that are designed specifically to locate and eliminate illicit discharges to the MS4.

This section contains subsections that address the following aspects of this program:

- A. Illicit Discharge Prohibition;
- B. Overflows and Infiltration;
- C. Floatables;
- D. Household Hazardous Waste and Used Motor Vehicle Fluid;
- E. MS4 Screening and Illicit Inspections;
- F. Elimination of Illicit Discharges and Improper Disposal
- G. List of Discharges Directly to the MS4

A. ILLICIT DISCHARGE PROHIBITION

This section describes a program for prohibiting illicit discharges to the City's MS4. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(B)(1) and Part III.B.6.a of the City's TPDES permit.

Program Components

Based on data collected during the application process, Abilene has not identified any of the types of discharges listed in 40 CFR §122.26(d)(2)(iv)(B)(1) as sources of pollutants to waters of the United States. Therefore, Abilene has decided to allow all of the listed non-storm water discharges to the extent that these discharges are not otherwise prohibited by an existing ordinance. This list is set out below:

Allowable Non-Storm Water Discharges

- | | |
|---|--|
| 1. Water line flushing | 10. Irrigation water |
| 2. Landscape irrigation | 11. Springs |
| 3. Diverted stream flows | 12. Water from crawl space pumps |
| 4. Rising ground waters | 13. Footing drains |
| 5. Uncontaminated ground water infiltration | 14. Lawn watering |
| 6. Uncontaminated pumped groundwater | 15. Non-commercial car washing |
| 7. Discharges from potable water sources | 16. Flows from riparian habitats and wetlands |
| 8. Foundation drains | 17. Dechlorinated swimming pool discharges |
| 9. Air conditioner condensate | 18. Street wash waters |
| | 19. Discharges or flows from emergency fire fighters |

Abilene's decision to allow these non-storm water discharges, to the extent that they are not otherwise prohibited by an existing ordinance, is based on its desire to neither unnecessarily restrict activities that have not been shown to pollute Abilene's storm water nor arbitrarily limit its discretion to prohibit any pollution causing activity. By allowing all of the listed activities, while retaining the ability to enforce its existing ordinances, Abilene will be able to meet both of these goals.

The listed non-storm water discharges have not been identified as sources of pollutants to waters of the United States. As noted in Abilene's Part I Application, because Abilene is predominately drained by a surface system and because the citizens have been conditioned to report any water in these surface drainages, the probability of long-term illicit discharges is very low. Additionally, analytical testing of the few dry weather flows found during the screening program did not indicate that the flows are affecting the quality of the waters of the United States. Thus, Abilene has no basis to conclude that any of the listed non-storm water discharges are sources of pollutants to the waters of the United States.

By limiting the listed discharges to those not otherwise prohibited by an existing ordinance, Abilene will be able to prohibit or stop, on a case-by-case basis, any discharge that has the ability to pollute, or is polluting, the MS4. Abilene's existing ordinances addressing illicit discharges are listed in Section 1.0 of Abilene's Part 2 Application. Two examples of the types of discharges prohibited by existing ordinance are as follows: (1) Section 15-2 of the Lake Ordinance, which makes it unlawful for any person to pollute in any manner, whether directly or indirectly, any lake under Abilene's ownership or control, including Abilene's MS4; and (2) Section 19-15, which expressly prohibits any person from causing, permitting, maintaining or allowing the creation or maintenance of a nuisance.

Finally, the Municipal Drainage Utility – Stormwater Protection ordinance broadly prohibits the illicit discharges and illicit connections. The ordinance states that “No person may discharge or cause to be discharges any harmful quantity or any substance into the municipal stormwater drainage system that is not comprised entirely of stormwater” and “The construction, connection, use, maintenance or continued existence of any illicit connection to the municipal stormwater drainage system is prohibited”. The ordinance also provides for enforcement actions up to and including stop work orders, citations, and suspension of utility service for violators of the ordinance.

Program Schedule

These non-storm water discharges are not currently prohibited, except on a case-by-case basis when they cause pollution or a nuisance. In addition, there are existing ordinances that allow the City to prohibit or stop these discharges on a case-by-case basis when they do create pollution or a nuisance. Therefore, no additional action by the City is needed.

B. OVERFLOWS AND INFILTRATION

This section describes a program to limit the discharge of pollutants to the MS4 as a result of sanitary sewer seepage. This program has been developed in compliance with 40 CFR §122.26 (d)(2)(iv)(B)(7) and Part III.B.6.b of the City's TPDES permit

Program Components

The City of Abilene owns and operates a centralized sewer system that serves most of the wastewater needs within the service area of the MS4. The following program components are proposed to control pollutants discharged through the MS4 as a result of sanitary sewer seepage.

- Citizens will be encouraged to call the City when they observe water flowing in the streets during dry weather. The City will investigate these reports to determine if the flow contains wastewater or other pollutants. If the flow is determined to contain wastewater, a repair crew will be assigned to correct the problem. This program is discussed further in the section on "Public Education".
- The Distribution/Collection Superintendent will maintain records of any problems (line breaks, line blockages, lift station malfunctions, etc.) identified.
- The City will clean sanitary sewer lines using high-water-pressure cleaning equipment as part of a systematic infiltration/inflow control program. If there is a reason to believe that the line has deteriorated, after the line is cleaned mobile camera equipment will be used to conduct visual inspections.
- The City will replace or rehabilitate sewer components that are identified as being unreliable in accordance with priorities established by the City.
- The City will maintain a long-range planning process to ensure that adequate system capacity is maintained as demands on the system grow through development. The City will review all development projects to determine their potential impact on the wastewater collection system. System improvements will be constructed to meet the increased demands so that the system's reliability is not affected.

Program Schedule

The City is currently performing all aspects of the programs identified in this portion of the SWMP. The schedules for public education activities are set forth in a later section. The City will continue the existing programs described above during the term of the permit.

Performance Measures

The City will track the following performances annually during the term of the permit. It is anticipated that these performance measures may increase or decrease significantly from year to year in response to changing conditions.

- The number of miles of sanitary sewer cleaned.
- The number of miles of sanitary sewer inspected by remote cameras.
- The number and types of sanitary sewer rehabilitation projects completed. Upgrade projects may include lift station replacements, parallel sewer lines, or sanitary sewer diversions.
- The number of linear feet of sanitary sewer line replaced.

C. FLOATABLES

This section describes a program to limit the discharge of floatables (e.g. litter and other human generated solid refuse) into the MS4 by implementation of source controls, structural controls, and other appropriate controls. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(A)(1) and Part III.B.6.c of the City's TPDES permit.

Program Components

The City will monitor floatables within the MS4 by evaluating the combined amount of material collected from area drainage ways as a result of the various litter control and stream maintenance programs identified in the SWMP. In addition, every year, KAB will conduct a photometric index survey of sites around the city to gauge the success of litter abatement programs.

Program Schedule

The floatables-monitoring program has been implemented and is currently operating as described in the SWMP. Performance measures for the Floatables program can be viewed in the Public Education portion of the SWMP.

D. HOUSEHOLD HAZARDOUS WASTE AND USED MOTOR VEHICLE FLUID

This section describes an educational program to facilitate the proper management of used oil and toxic materials. This program has been developed in compliance with 40 CFR §122.26 (d)(2)(iv)(B)(6) Part III.B.6.d of the City's TPDES permit.

Program Components

The primary objective of the program proposed in this area is to minimize the potential contribution of pollutants to the MS4, as a result of the improper disposal of used oil and hazardous household wastes. The following specific programs are included in this portion of the SWMP. Additional information concerning the details, schedule, and performance measures is contained in the section on "Public Education".

The City will conduct the following household hazardous waste use/disposal programs:

- **Environmental Recycling Center** - The City's Environmental Recycling Center operates a Household Hazardous Waste Unit. The Center, located at 2209 Oak Street, is open to the public Monday thru Saturday 9:30 until 4:45 and Sunday 1:00 until 4:45.

The center accepts all household materials, including vehicle wastes (fluids, batteries, used oil filters, and tires), chemicals and yard clippings. Wastes are disposed of through an authorized disposal contractor of the Center's Product Exchange Program.

- **Public Education** - The City incorporates information about household waste and vehicle fluid disposal in its various public education efforts, through the Keep Abilene Beautiful (KAB) program and the Solid Waste Services' Environmental Recycling Program.

These public education efforts incorporate a wide variety of communication strategies,

including published information, television public service announcements, billboards, presence at trade shows, and public presentations to distribute its message.

Brochures offer detailed information about the benefits of proper handling of such substances and offer current information about all recycling points, along with the materials they accept. The City's Environmental Recycling Center is the primary recycling station drop off point; however, the City has ten (10) other drop-off points located throughout the City.

Performance Measures

The City will track the following performance measures annually during the term of the permit.

- Number of citizens disposing of used motor oil, household hazardous wastes, vegetation, and floatables through the Environmental Recycling Center. The amount of materials disposed of will be reported in tons.

E. MS4 SCREENING AND ILLICIT INSPECTIONS

This section describes a program to locate and identify illicit discharges to the MS4. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(B)(1) and Part III.B.6.e of the City's TPDES permit.

Program Components

The City will implement the following measures to identify illicit discharges.

- The City will develop a list of those facilities for which monitoring is required under permit part III.B.11.c.
- Illicit connections within the MS4 will be identified through the combined effort of five programs:
 - The City will conduct a dry-weather screening program for all of its subsurface storm water outfalls. Twenty percent of the subsurface outfalls will be screened each year during the term of the permit, so that by the end of the permit term, all outfalls will have been assessed. The details, schedule, and performance measures for this program are discussed further in the section entitled "Monitoring".
 - Citizens will be advised to call the Stormwater Utility Division and the Water Utility Department and report flowing water in streets or alleys during dry weather. The details, schedule, and performance measure for this program are discussed further in the section entitled "Public Education".
 - City employees will be instructed to report any suspect discharges to the Stormwater Utility Division and the Water Utility Department.

- The City will conduct inspections of industrial facilities for illicit connections. The Industrial Waste Manager (IWM), or his representative, will inspect industrial facilities, which are part of the City's Industrial Pretreatment Program. The inspection report forms that the IWM uses have been modified to include an inspection for illicit connections.
- The City will evaluate the results of its storm water monitoring data for unusual characteristics that might indicate an illicit connection.
- If a potential illicit discharge is identified, the IWM and/or a Stormwater Utility Division representative will investigate the discharge. If the discharge is on the surface, such as in a street or an alley, it will be visually traced back to its apparent source. If the suspect discharge is located in a subsurface storm sewer, then the investigator will trace it up the storm sewer by opening manholes to visually inspect for the presence of flow. By inspecting manholes in the area, the search area for the illicit discharge will be narrowed. Once a suspect discharge has been isolated to a particular portion of the storm sewer, the City may use a dye test or its television equipped sewer inspection truck to attempt to further locate the source of the suspect discharge.
- Samples of a suspect discharge may be collected to determine its origin. A decision regarding whether or not testing should be performed will be made after reviewing the specific situation encountered.
- Should an illicit discharge be confirmed, the IWM or Stormwater Utility Division representative will initiate corrective actions to eliminate the discharge. The process for eliminating the discharge is discussed in the section entitled "Illicit Discharge Elimination".

Program Schedule

The City is currently enforcing its ordinances in accordance with the procedures identified above and will continue to do so during the term of the permit.

Performance Measures

The City will track the following performances annually during the term of the permit.

- The number of illicit connections/illicit discharges eliminated.
- The number of illicit connection/illicit discharges investigations and the outcome of the field investigations.
- The number of sanitary sewer overflows investigated by the Water Department.
- Due to the initiation of the Industrial Facility Inspection program the IWM will no longer conduct these inspections. Stormwater is conducting these inspections and will report in the Industrial Facility section.

F. ELIMINATION OF ILLICIT DISCHARGES AND IMPROPER DISPOSAL

This section describes a program to eliminate illicit discharges that have been identified. This program has been developed in compliance with 40 CFR § 122.26 (d)(P)(iv)(B)(1) and Part III.B.6.f of the City's TPDES permit.

Program Components

Once an illicit discharge has been located and the responsible party identified, the City will implement the following procedures:

- The Stormwater Utility Division representative will work with the responsible party to eliminate the illicit discharge within ten (10) days. If it is not feasible to achieve compliance within this time frame, the Stormwater Utility Division representative will work with the responsible party to set a schedule to achieve compliance as expeditiously as possible.
- For illicit dischargers requiring TPDES permits, the IWM and/or the Stormwater Utility Division representative will notify the TCEQ as appropriate.
- The City will address illicit dischargers that fail to achieve voluntary compliance in accordance with the appropriate ordinances and statutes.
- The City may also suspend utility service (water service, sanitary sewer, MS4 access) to a facility if it will stop an actual or threatened discharge, which presents or may present imminent and substantial danger to the environment, health or welfare of persons, the MS4, or waters of the United States.

Program Schedule

The City is currently investigating all reports of illicit discharges in accordance with the program identified above; they will continue doing so during the term of the permit. The inspection form for the Industrial Pretreatment program has been revised to include stormwater inspection criteria. The inspection of industrial sites for illicit connections has been implemented.

G. LIST OF DISCHARGES DIRECTLY TO THE MS4

This section describes a program to compile a list of discharges directly to the MS4 that have been issued an NPDES or a TPDES permit. The list shall include the name, location, and permit number (if known) of the discharger. This program has been developed in compliance with Part III.B.6.g of the City's TPDES permit.

Program Components

The City of Abilene has compiled a list of dischargers that discharge directly to the MS4 and have been issued an NPDES/TPDES permit. Additionally, the City of Abilene will maintain a list of dischargers that discharge directly to the MS4 but have not been issued an NPDES/TPDES permit.

Performance Measures

The City will track the following performances annually during the term of the permit.

- Addition or removal of any dischargers to the list, as appropriate.
- This list will be included in the Annual Report.

VII. SPILL PREVENTION AND RESPONSE

This section describes programs to encourage actions that will reduce spills and to provide appropriate responses when spills do occur. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(B)(4) and Part III.B.7 of the City's TPDES permit.

The following discussion identifies:

- A. Spill Prevention Program; and
- B. Spill Response Program.

A. SPILL PREVENTION PROGRAM

- The City will provide training regarding the City's plan for safe handling of chemicals to every city employee that works with chemicals or petroleum products when the employee is hired. The Hazard Communication Procedure (HAZCOM) and training are in compliance with the Texas Hazard Communication Act and are administered by the Risk Management Division of the Administrative Services Department. Employees that are working with, or near, potentially hazardous materials will receive additional training concerning the site-specific spill prevention plan for their facility. The site-specific training will be conducted annually.
- The Fire Marshal's Office administers a permit program that regulates entities that store or use hazardous materials. The permits must be renewed annually. This permit program is in conformance with Chapter 1 of the International Fire Code, as adopted by the City. The permit program has two major components that assist in the prevention of major spills,
 - Spill containment structures such as dikes and other secondary containment features must be constructed as part of any storage facility for hazardous materials.
 - The city fire inspectors will conduct on-site inspections of permitted facilities annually. During these inspections, the fire inspectors are primarily concerned with fire code violations. However, if the inspector observes a condition that could result in a water quality problem, the inspector will inform the IWM and/or the Stormwater Utility Division of the observed conditions. The IWM and/or a Stormwater Utility Division representative will coordinate with the operator of the facility to remedy the potential problem.
- In addition to the inspections of sites permitted to store or use hazardous materials; fire department personnel will inspect commercial business on an annual basis. If the fire department personnel observe hazardous materials on the site, they will inform the site operator and the Fire Marshal that a Fire Code permit is required for the facility, per the International Fire Code.

B. SPILL RESPONSE PROGRAM

- In the event of a hazardous and/or toxic material spill, the first arriving officer from the City

of Abilene will monitor the spill status. If assistance is needed to determine the material or materials present in the spill, the Fire Department will contact the City's HAZMAT team, IWM and/or the Stormwater Utility Division. The Fire Department will abate any immediate threats to human health and safety and the environment created by the spill.

- Once the immediate hazard has been abated, the Fire Department will contact the TCEQ. The TCEQ will be responsible for directing the clean-up efforts at the site. The TCEQ will notify the EPA in accordance with federal regulations. If the spill occurs on state-controlled right-of-way, the Fire Department will contact the Texas Department of Transportation (TxDOT), and TxDOT will be responsible for contacting the TCEQ.
- For spills that do not require TCEQ notification, (non-hazardous spills or spills below the threshold amount) the Fire Department will contact the Stormwater Utility Division. The Stormwater Utility Division representative will identify the source of the spill and work with the responsible party to achieve clean-up through either voluntary action or enforcement proceedings provided for in the City Code.

Program Schedule

The City is currently performing all aspects of the programs identified and will continue the programs during the term of the permit.

Performance Measures

The City will track the following performance measures during the term of the permit.

- Number of employees receiving training related to the City's HAZCOM program.
- Number of Fire Code permits issued under Chapter 1 of the International Fire Code.
- Number of spills responded to and a brief description of the chemical(s) of concern, abatement actions, and if the spill had any effect on water quality.

VIII. INDUSTRIAL & HIGH RISK RUNOFF

This section describes a program to control the potential contribution to the MS4 of pollutants from hazardous waste sites and industrial facilities. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(C)(1) and (2) and Part III.B.8 of the City's TPDES permit.

Program Components

The following specific program components are included in this portion of the SWMP.

- There are no operating municipal landfills within the City at this time. There are three properly closed landfills within the service area of the MS4. These facilities were inspected during the preparation of the Part 2 application. This inspection concluded that the facilities did not contain any exposed material that might discharge pollutants to the MS4. The Stormwater Utility Division will re-inspect these facilities annually to ensure that this condition does not change. If these inspections reveal any potential problems, the City will develop a management plan to address the specific problem following the inspection.
- The City has developed a list of those facilities for which monitoring is required under permit Part III.B. 11.c.
- The City will conduct annual inspections of all industrial facilities subject to the reporting requirements of the Superfund Amendment and Reauthorization Act of 1986 (SARA), Title III, Section 313 located within the service area of the MS4. The SARA facilities that are subject to the City's Industrial Wastewater Pretreatment Program will be inspected annually by the IWM. The IWM has the authority to inspect the entire premises and identify conditions that could result in the discharge of pollutants through storm water runoff. The Stormwater Inspection and Permit Specialists will conduct annual inspections of all SARA Title III sites to identify and control pollutants in stormwater discharges to the MS4. SARA Title III sites subject to the MSGP requirements will be inspected in accordance with the associated permit.
- The City has not identified any other industrial facilities that are contributing a substantial pollutant load to the MS4. Therefore, the City is not proposing an inspection program for other industries at this time. If, in the future, the City determines that one or more industrial sites are contributing a substantial pollutant load, an appropriate inspection and/or monitoring program will be developed.
- The City has adopted an ordinance and implemented a program requiring all hazardous waste treatment/storage facilities; active municipal landfills; SARA Title III, Section 313 industries; and other industrial facilities that the City has determined contribute a substantial pollutant load to the MS4 to self-monitor storm water runoff and provide the results to the City. The details, schedule, and performance measure for this program are included in the section on "Monitoring".
- The City will maintain a list of hazardous waste and industrial storm water dischargers monitored and/or inspected pursuant to the SWMP. Dischargers listed will include hazardous waste treatment/storage facilities; active municipal landfills; SARA Title III, Section 313 industries and other industrial facilities that the City has determined may contribute a

substantial pollutant load to the MS4. This list will be updated as necessary.

- If the City becomes aware of any industrial facility that is potentially discharging storm water in violation of federal regulations or laws, the City will notify TCEQ. Additionally, if industries within Abilene's MS4 service area are unsure if their stormwater discharges are subject to the NPDES/TPDES program, the City will refer the industries to the EPA/TCEQ in order to resolve any questions.
- The City may accept a “no exposure” certification from a Type 1 or Type 2 facility in lieu of monitoring. The facility must confirm in the “no exposure” certification that industrial activities are not presently exposed to stormwater and are not expected to be exposed to stormwater for the certification period. The MS4 operator will conduct site inspections of these facilities at a minimum of once per permit term. The City will maintain a list of any facility meeting the “no exposure” requirement.
- The City may waive monitoring requirements; per the TPDES permit Part III.A.11.c.(4), for facilities that the City determines to be in compliance with the TPDES Multi-Sector General Permit No. TXR050000. The City will maintain a list of any facility meeting this requirement.

Program Schedule

The City will inspect closed landfills annually. All facilities subject to the TCEQ MSGP will be inspected at a minimum of once per permit term. SARA Title III Section 313 industries will be inspected at least once per year during the term of the permit. A list of hazardous waste and industrial storm water dischargers monitored and/or inspected pursuant to the SWMP has been compiled and is being utilized in inspection(s) scheduling.

Performance Measures

The following performance measures will be tracked annually by the City of Abilene during the term of the permit.

- The number of industrial facility brochures distributed to facilities subject to the MSGP and other targeted individuals.
- The number of SARA Title III, Section 313 facilities inspected by the Stormwater Utility Division, and a description of actions taken in response to the identification of conditions that could result in the discharge of significant pollutants to the MS4.
- The number of inspections conducted at industrial facilities by the Stormwater Utility Division.
- The number of inspections conducted at “no exposure” facilities by the Stormwater Utility Division.
- The number of new Notice of Intent’s received by the Stormwater Utility Division.
- The number of No Exposure Certifications received by the Stormwater Utility

Division.

IX. CONSTRUCTION SITE RUNOFF

This section describes a program to limit the contribution of pollutants to the MS4 from construction sites. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(D) and Part III.B.9 of the City's TPDES permit.

The following subsections contain descriptions of programs in the areas of:

- A. Erosion and Sedimentation Control,
- B. Litter Control, Inspections, and Training for Construction Site Operators.

A. EROSION AND SEDIMENTATION CONTROL

- The City Subdivision Ordinance requires that all construction involving significant disturbances of land must comply with the Drainage Standards. For those projects that are not subject to the subdivision ordinance, the Floodplain Administrator may require compliance with the Drainage Standards prior to the issuance of a building permit or a Floodway Development Permit. The Drainage Standards include the following specific guidelines:
 - Sediment shall not be conveyed into improved drainage facilities, public rights-of-way, or onto adjacent property as a result of construction.
 - Specific sediment controls must be identified for all residential developments of two or more acres and all commercial or industrial developments of one-half acre or more.
 - Specific sediment control practices, which may be required, include sediment barriers, storm drain inlet protection, detention basins, flow diversions, temporary seeding and mulching, and surface roughening.
- The City's Municipal Drainage Utility – Stormwater Protection Ordinance states that the introduction of sediment, concrete, asphalt, or any other construction debris into the MS4 is a violation of the City's Municipal Drainage Utility Ordinance and will be subject to enforcement activities.
- A person commits an offense if the operator of a construction site fails to submit a copy of the Notice of Intent or Construction Site Notice when applicable.

B. LITTER CONTROL, INSPECTIONS, AND TRAINING FOR CONSTRUCTION SITE OPERATORS

- The City Building Code and the Municipal Drainage Utility Ordinance include a provision prohibiting litter at construction sites. Appropriate enforcement measures will be taken during the term of the permit.

- The Keep Abilene Beautiful (KAB) program will provide educational assistance to area contractors in the development of litter prevention/clean-up programs for construction sites. Contractors will be made aware of this resource through an annual mailing prepared by the Stormwater Utility Division.
- All construction sites within the service area of the MS4 will be subject to inspection by City staff.
- If an inspector observes a potential problem that might result in the discharge of pollutants to the MS4, the inspector has the following remedies available.
 - Work with the contractor to achieve voluntary compliance.
 - Issue a stop-work order.
 - Bring monetary enforcement actions for any violations of the City Code.
- The Drainage Standards include specific requirements for construction site operators concerning erosion and sedimentation controls for projects within the City. The City will continue to update the Drainage Standards as needed, to provide guidance to site operators on improved methods or technology as new information becomes available to the City.
- The City's Municipal Drainage Utility Ordinance provides the Stormwater Utility Division the authority to review Stormwater Pollution Prevention Plans (SWP3) and associated Best Management Practices (BMPs) and to require the facility operator to amend the SWP3 and/or BMPs as necessary to prevent the introduction of pollutants to the MS4.
- The City will produce written materials describing the City's policies concerning water quality controls at construction sites. These materials will be distributed to the developers and/or contractors when site plans or building permit applications are submitted.
- The City has developed a program that includes guidance documents, inspections forms, and Notice of Violation/Notice of Enforcement forms to be utilized during construction site inspections.

Program Schedule

The City is currently performing all aspects of the programs identified in this portion of the SWMP. The City will continue the existing programs during the term of the permit.

Performance Measures

The following performance measures will be tracked annually by the City of Abilene during the term of the permit.

- The number of contacts made by City of Abilene with area contractors to develop litter prevention/clean-up programs.

- The amount of informational materials distributed on construction site water quality controls, as reflected by the number of building permits issued.
- The number of NPDES and TPDES Notice of Intent (NOI), Notice of Change (NOC), and Notice of Termination (NOT) for each general permit.
- The number of Construction Site Notice (CSN) received from small construction site operators seeking coverage for stormwater discharges.
- The number of inspections conducted at construction sites.

X. PUBLIC EDUCATION

The City of Abilene has included public education activities as components of several SWMP programs. A brief description of these activities appears with each of the individual SWMP programs. Additional information concerning these activities, as well as a schedule and performance measure are included in this section to provide a comprehensive view of the City's public education program. The combined public education program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(A)(6), 40 CFR §122.26(d)(2)(iv)(B)(5) and (6), and Part III.B.10 of the TPDES permit.

Specific public education activities are associated with:

- A. Public Reporting of Illicit Discharges;
- B. Litter Control;
- C. Used Oil and Household Hazardous Waste;
- D. Pesticides, Herbicides, and Fertilizer Management.

A. Public Reporting of Illicit Discharges

- The City will operate a 24-hour service line that citizens can use to report any water-related issue, including suspected illicit discharges. This service will be provided by the Water Utility Department.
- The City will promote the use of the 24-hour service line through the inclusion of one-line messages on the utility bills. The phone number for the service line will be included in the message. These messages will be included on utility bills one time per year.
- The City will develop public service announcements for distribution to the local television stations and newspaper. At least two announcements will be prepared each year.
- The City has developed a water quality brochure that emphasizes non-point source pollution issues, including public monitoring of illicit discharges. Approximately 1,000 brochures will be printed for distribution at civic club presentations, City offices, and public environmental events.
- To reinforce the non-point source control message, billboard advertising will be obtained. Approximately four sign-months will be obtained per year.

B. Litter Control

- Keep Abilene Beautiful will organize local volunteers to participate in the annual Don't Mess with Texas Trash Off.
- Keep Abilene Beautiful will coordinate with TxDOT to assign local volunteer groups to pick up litter along a designated segment of highway as part of the Adopt-a-Highway program. Under this program, groups sign up to adopt a two-mile length of highway and make sure that litter is periodically picked up from the right-of-way along the highway.
- Every year, KAB will conduct a photometric index survey of sites around the city to gauge

the success of litter abatement programs. The results of this annual survey will be provided in a news release to the area television stations and newspaper.

- Keep Abilene Beautiful will sponsor annual Recognition Awards in the categories of Water Conservation, Beautification, and Recycling. These awards will be presented at an acknowledgment ceremony. The winners will also be recognized through various citywide media outlets.
- Keep Abilene Beautiful will help support Spring Clean and Fall Clean for Abilene. Under this program, residents will be encouraged to bring in items that they no longer use. Each event will last 3 days.
- Keep Abilene Beautiful organizes an annual lake, river, and creek cleanup with local community organizations. The community organizations perform cleaning of litter and trash from lakes, rivers, and creeks.
- Keep Abilene Beautiful participates in the Great American Cleanup in the spring, which is performed over a three-month period.
- The Stormwater Utility Division provides approximately 21,750 stormwater education book covers to local schools.

C. Used Oil and Household Hazardous Waste Management

The City of Abilene will perform the following household hazardous waste use/disposal public education efforts:

- Keep Abilene Beautiful includes household waste and vehicle fluid disposal in its various public education efforts (Don't Mess with Texas Trash Off, Spring Clean, Fall Clean, trade shows, public presentations, etc.). KAB regularly utilizes all media venues, including published information, television public service announcements, billboards, presence at trade shows, and public presentations to distribute its message.
- Brochures offer detailed information about the benefits of proper handling of such substances and offer current information about all recycling points, along with the materials they accept. The list of recycling points includes the City's Environmental Recycling Center.

D. Pesticide, Herbicide, and Fertilizer Management

- The Water Utility Department integrates detailed information about the proper use of pesticides, herbicides, and fertilizers, into the Water Utility Department's XERISCAPE program. This program continues to receive considerable community support as word gets out about the benefits of creative landscaping and maintenance tailored to the unique needs of the West Texas area.
- Coalitions are being developed with local gardening clubs, the County's Master Gardener Program, and nurserymen to increase public exposure to XERISCAPE as a community

strategy to maximize efficient use of water while minimizing potential for non-point source pollution from excess application of lawn chemicals.

Program Schedule

The following schedules will be achieved:

- Annually - Conduct photometric index survey to gauge success of litter control program.
- Annually -
 - Put notices on water bills of availability of 24-hour service line for reporting illicit discharges.
 - Provide two public service announcements regarding eliminating illicit discharges to television stations and newspaper.
 - Distribute water quality brochures.
 - Maintain billboards encouraging non-point source control for a minimum of 4 sign-months.
 - Encourage participation in the Don't Mess with Texas Trash Off.
 - Sponsor Recognition Awards in the areas of Water Conservation, Beautification, and Recycling.
 - Help support Spring Clean and Fall Clean.
 - Organize lake, river, and creek cleanup.
 - Participate in Great American Cleanup.

Performance Measures

The City will track the following performance measures during the term of the permit.

- The number of notices mailed to citizens on water bills.
- The number of public service announcements provided to the media. The number of water quality brochures printed and distributed.
- The number of billboard messages displayed and the duration of each display.
- The number of participants in the Don't Mess with Texas Trash Off and the amount of material collected.
- The number of volunteer groups participating in the Adopt-a-Highway program.
- The number of nominations received for the Water Conservation, Beautification,

Recycling, and Special Recognition Awards presented by KAB.

- The number of public contacts concerning household hazardous waste. Public contacts would include presentations to civic organizations, fliers, etc.
- The number of public contacts concerning the use of pesticides, herbicides, and fertilizers. Public contacts would include presentations to civic organizations, fliers, etc.
- The number of participants in the annual lakes, rivers, and creeks cleanup. The amount of material collected during this event.
- The number of participants in the Great American Cleanup.
- Amount of material collected from area drainage ways as a result of the street sweeping program, maintenance of structural controls, and the efforts of volunteers.
- Book covers provided by the Stormwater Utility Division to the Abilene Independent School District.
- The results of the photometric index survey will be reported every year.

XI. MONITORING PROGRAMS

The City of Abilene has included monitoring activities as components of several SWMP programs. A brief description of these activities appears with each of the individual SWMP programs. Additional information concerning these activities, as well as schedules and performance measures, are included in this section to provide a comprehensive view of the City's monitoring program. The overall monitoring program has been developed in compliance with 40 CFR §122.26 (d)(2)(iv)(A)(1), 40 CFR §122.26(d)(2)(iv)(B)(1) and (2), 40 CFR §122.26(d)(2)(iv)(C)(2) and Part III.B.11 of the TPDES permit. It should be noted that the monitoring programs discussed below are in addition to the continuing monitoring of MS4 runoff quality required by 40 CFR §122.26 (d)(2)(iii)(D).

Program Components

The City's monitoring program consists of the following components:

- The City will conduct a dry-weather-screening program for all of its subsurface outfalls. Twenty percent of the subsurface outfalls will be screened each year during the term of the permit, so that, by the end of the permit term, all outfalls will have been evaluated.

The dry weather screening will consist of a visual inspection of the subsurface outfall. The inspector will record his observations on a field data sheet. If the inspector observes water flowing, he will note the following: odor, color, clarity, floatable, deposits/stains, vegetation condition, structural condition of outfall, and biological information. If the inspector believes that the flow contains significant contaminants, he may obtain a sample for laboratory analysis. The parameters to be analyzed will be determined on a case-by-case basis. If warranted, the inspector will investigate the flow in accordance with the methods previously identified for illicit discharges.

- The City will conduct a wet-weather-screening program for its MS4. Due to the extent of surface drainage within the MS4, City road crews are dispatched to numerous low-water crossings during moderate to heavy rainfall events. The crews monitor the level of water in area creeks and close roadways when they become impassable. These roadway crews will observe the physical character of the flow in the curbs, ditches, and creeks. If the crews observe any indicators of gross pollution, they will contact a Stormwater Utility Division representative who will investigate the flow in accordance with the methods previously described for illicit discharges.
- The City has adopted an ordinance requiring that certain industries within the MS4 service area provide the City with self-monitoring results for one runoff event per year. The industries that will be required to conduct the self-monitoring include active municipal landfills; hazardous waste treatment, storage, and disposal facilities; industries subject to the reporting requirements of SARA Title III, Section 313; and any other industry that the City believes is a significant contributor of pollutants to the MS4. These industries will be required to monitor in accordance with Part III.B.11.c.(1), Part III.B.11.c.(2), Part III.B.11.c.(3), and Part III.B.11.c.(4) of the City's MS4 permit.

Program Schedule

The dry-weather screening program was implemented upon the issuance of the final permit. Twenty

percent of the subsurface outfalls will be screened during each permit year so that all subsurface outfalls will have been screened by the end of the permit term.

The wet-weather screening program has been implemented and is being conducted as described in the SWMP. The road crews have been instructed to report any unusual flows they may observe to the Stormwater Utility Division.

The ordinance requiring self-monitoring by certain industries was adopted in August 2006. Industries will not be required to begin self-monitoring for six months after the adoption of this ordinance.

Performance Measures

The following performance measures will be tracked annually by the City of Abilene during the term of the permit.

- The number of subsurface outfalls screened and the results of the screening.
- The number of wet-weather screening events and the results of the screening.
- The number of industrial facilities conducting self-monitoring will be reported if any sites are required to conduct self-monitoring.