

City of Abilene Storm Water Management Program (SWMP)

Revised November 21, 2011



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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MCM 1 – MS4 MAINTENANCE ACTIVITIES

A. 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.2.a of the City's TPDES permit.

Program Components

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

- The Stormwater Services Division of the Public Works Department will maintain natural and improved drainage ditches, storm drains, culverts, flood control structures and other publicly controlled drainage structures. This includes publicly controlled detention basins within the City limits of Abilene. Specific tasks performed by the Stormwater Services Division that provide water quality benefits will include the stabilization of slopes; the removal of sediment, debris, and litter (floatables) from drainage conveyances; maintaining drainage ditches by grading and mowing; and the repair of associated structures.
- The Stormwater Services Division will maintain all publicly controlled curb inlets and storm drains. Specific tasks to be performed by the Stormwater Services 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.
- Cubic feet of litter collected from drainage way maintenance of structural controls.

B. 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.2.b 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. The Stormwater Services Division partners with Keep Abilene Beautiful (KAB), which is an affiliate of Keep America Beautiful and Keep Texas Beautiful, on various events to promote litter clean-ups within the community. In fact, the Stormwater Education Coordinator is also the Keep Abilene Beautiful Coordinator and therefore is able to cross correlate education purposes.

- Adopt-A-Street/Creek Program: The Stormwater Services Division has developed the Adopt-a-Street/Creek program in partnership with KAB. Community groups (cub scouts groups, businesses, social clubs, etc.) sign two-year contract commitments to adopt a street or section of a local creek to conduct quarterly litter clean-up events. Each group will get a sign notating that this is an Adopt-a-Street/Creek area and get the name of their entity placed as well. The Solids Waste Services Division has agreed to pick up the trash bags at a determined location after each clean-up event.
- Adopt-A-Campus Program: The Stormwater Services Division has partnered with KAB to initiate the Adopt-a-Campus Program for the Abilene Independent School District. The agreement states that each participating campus will conduct two clean-up events per year at the campus and the surrounding grounds. This program was an innovation of the Stormwater Services Division; however, it is funded through KAB. Each campus will receive a sign that notates that it is an Adopt-A-Campus facility.
- Don't Mess with Texas Trash Off: Keep Abilene Beautiful will organize local volunteers to participate in the annual Don't Mess with Texas Trash Off.
- Great American Cleanup: Keep Abilene Beautiful participates in the Great American Cleanup in the spring, which is performed over a three-month period.
- Photometric Litter Index Survey: Every year, KAB will conduct a Photometric Litter 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. The Photometric Litter Index Survey is a visual assessment of the types and amounts of litter present throughout the community and assists KAB in developing events for the coming year as well as where to focus clean-ups. The Litter

Index helps keep track of the overall progress in reducing litter each year. The Index is measured on a scale of one (1) to four (4) with one being virtually no litter and four being heavily littered.

- Recognition Awards: Keep Abilene Beautiful will sponsor annual Recognition Awards in the categories of Water Conservation, Beautification, and Recycling, which will be presented at an annual acknowledgment ceremony. The winners will also be recognized through various city-wide media outlets.
- Spring Clean/Fall Clean/Tire Amnesty Day: Keep Abilene Beautiful helps support the Environmental Recycle Center's (part of the City's Solid Waste Division) Spring Clean and Fall Clean/Tire Amnesty Day. Under this program, residents will be encouraged to bring in items they no longer use to recycle or discard at no price; each event runs for three days.
- Keep Abilene Beautiful with Stormwater Services promote lake and creek litter cleanup events with local community organizations.

In 2007, the Solid Waste Services Division included in their ordinance the following requirements to mitigate the introduction of litter into the MS4:

- Cover or enclose any collection container or vehicle used to transport municipal solid waste on any street or alley of the city.
- Keep closed all commercial solid waste collection containers equipped with lids to prevent spillage of waste.
- Keep property clean of solid waste thrown or left by customers, and prevent same from drifting or blowing to adjoining properties.
- Bag and securely tie, box, or bundle lightweight waste and loose items prior to placing in a collection container.
- Bag and tie securely, box, or bundle loose municipal solid waste and place in the collection container with a closed lid. Pick up small items lying loose on the ground as they will not be picked up by the Solid Waste Division.

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 groups participating in the Adopt-A-Street/Creek program.
- Amount of litter removed from streets/creeks through the Adopt-A-Street/Creek program.

- The number of campuses participating in the Adopt-A-Campus program.
- Amount of litter removed from campuses through the Adopt-A-Campus Program.
- The number of participants in the Don't Mess with Texas Trash Off.
- Amount of material collected during the Don't Mess with Texas Trash Off.
- The number of participants in the Great American Cleanup.
- The results of the photometric index survey will be reported every year.
- The number of lake or creek cleanups conducted.

C. ROADWAYS

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

Program Components

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

- The 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 a rotation that is set up to sweep each city street at least once per year.

In November 2009, the Street Sweeping Program was transferred from the Streets Division to the Stormwater Services Division. At that time Stormwater changed the main priority of the program from a primarily aesthetic/road safety value to a water quality value, while still operating for aesthetic/safety purposes. Sweeping operations are on a city-wide rotation; however, Stormwater prioritizes these operations when needed to mitigate the introduction of contaminants into the MS4. Stormwater is currently evaluating additional methods to improve the Street Sweeping Program; potential improvements may include the acquisition of additional street sweepers, curb inlet maintenance program, and/or modification of the sweeping rotation. With this program only being evaluated for water quality performance by Stormwater for two years the City believes two additional years of information is recommended before changes, if any, are implemented. The City will determine by the end of the second year (August 2013) of the new (current) permit term if additions or changes are needed in the Street Sweeping Program to make improvements for watershed protection.

- 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. Due to the nature of the work, City crews are instructed not to begin this type of work when rain is forecasted. Minor roadway repairs such as the repair of potholes are generally of short duration. 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.

MCM 2 – POST-CONSTRUCTION STORMWATER CONTROL MEASURES

A. 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.3.A 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 primary 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 20,000 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. No drainage plan is required for sites of one-half acre or less with less than 45 percent impervious cover or improvements with less than 20,000 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.

The Planning and Zoning Division's Landscape Ordinance, which requires a set "green space" from the street to the Parkway, creates parameters 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. This 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.

The Stormwater Services Administrator is a member of the City's Site Plan Review Committee, which provides information to developers and builders that submit site plans. The information provided through the Site Plan Review Committee includes, at a minimum, the requirements outlined above.

The Stormwater Services Division is currently working with the City's Engineering Division and Legal Department on a private detention pond enforcement program to assure that private detention ponds are maintained to engineered standards and functioning as intended. At this time, the plan has not been fully developed and thus not implemented. Legal obligations may not allow the creation of this program. The SWMP will be updated as information is obtained.

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.

Performance Measures

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

- The number of site plans reviewed for the Site Plan Review Committee by the Stormwater Services Administrator.

B. 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's Engineering Division assesses each flood control project to determine the impact(s) it will have on receiving water(s). Consideration is given to these projects being designed, constructed, and maintained to provide erosion prevention and pollutant removal from stormwater.

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.

Performance Measures

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

- The number of flood control structures retrofitted/modified to improve receiving water quality.
- The number of new flood control projects completed.

MCM 3 – ILLICIT DISCHARGES DETECTION AND ELMINATION

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. Elimination of Illicit Discharges and Improper Disposal
- C. Overflows and Infiltration;
- D. Household Hazardous Waste and Used Motor Vehicle Fluid;
- E. MS4 Screening and Illicit Discharge Inspections;
- F. NPDES and TPDES Permittee List
- G. MS4 Map
- H. Spill Prevention and Response
 - 1. Spill Prevention Programs
 - 2. Spill Response Programs

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.4.a.b.c.d.e 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-stormwater discharges to the extent that these discharges are not otherwise prohibited by an existing ordinance. This list is set out below:

Allowable Non-Stormwater Discharges

- | | |
|---|---|
| 1. Water line flushing | 13. Footing Drains |
| 2. Landscape irrigation | 14. Lawn watering |
| 3. Diverted stream flows | 15. Street wash waters |
| 4. Rising ground waters | 16. Individual residential vehicle washing |
| 5. Uncontaminated ground water infiltration | 17. #7, 15, & 16 but without the use of detergents or surfactants |
| 6. Uncontaminated pumped groundwater | 18. Flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; discharges listed in 40 CFR § 122.26(d)(iv)(B)(1); discharges as listed in TPDES permits TX150000 & TX050000 |
| 7. Discharges from potable water sources | 19. Other similar occasional incidental non-stormwater discharges |
| 8. Foundation drains | |
| 9. Air conditioner condensation | |
| 10. Irrigation water | |
| 11. Springs | |
| 12. Water from crawl space pumps | |

Additionally, the following discharges will not be addressed as illicit discharges by the City nor prohibited from entering the MS4:

1. discharges regulated by a separate NPDES or TPDES permit;
2. discharges for which an NPDES or TPDES permit application has been submitted or where neither an NPDES or TPDES permit is required; and
3. miscellaneous non-stormwater discharges.

Abilene's decision to allow these non-stormwater 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-stormwater 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-stormwater discharges are sources of pollutants to the waters of the United States.

The Stormwater Services Division works closely with the Abilene Fire Department (AFD) to address discharges or flows from fire fighting activities when they are identified as significant sources of pollutants. Stormwater schedules an annual meeting with AFD to review permit requirements and review fire fighting activities at sites where discharges were determined to be sources of pollutants. This meeting has helped build a cooperative relationship with Stormwater and AFD to reduce the pollutants entering the City's MS4.

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. 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-stormwater discharges are not currently prohibited, except on a case-by-case basis when they result in the introduction of pollutants to the MS4 or are deemed to be a nuisance. In addition, there are existing ordinances that allow the City to prohibit or stop these discharges on an individual basis when they do create pollution or a nuisance. Therefore, no additional action by the City is needed.

B. ELIMINATION OF ILLICIT DISCHARGE 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.4.f of the City's TPDES permit.

Program Components

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

- The Stormwater Services 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 Services Division representative will work with the responsible party to set a schedule to achieve compliance as expeditiously as possible. The schedule of compliance the Stormwater Services Division utilizes is dependent on the pollutant of concern, location of discharge, and imminent and substantial danger to the environment, health, or welfare of persons, the MS4, or waters of the United States. Each case is assessed based on the parameters of the illicit discharge/connection and/or improper disposal; therefore, the City does not have a set protocol for responding to these occurrences. However, the City does have the following procedures available through ordinance to facilitate the elimination of illicit discharges, illicit connections, and improper disposal.
 - Voluntary Compliance
 - Notice of Violation
 - Notice of Enforcement
 - Citation
 - Stop Work Order
 - Suspension of utility services (water and sanitary sewer)
 - Assessment of costs to the violator if the City conducts remediation
- The City will utilize a variety of these procedures to assure that any illicit discharge, illicit connection, or improper disposal is eliminated expeditiously within 30 days of discovery. The City will address illicit discharges that fail to achieve voluntary compliance in accordance with the appropriate ordinances and statutes.
- For illicit discharges requiring TPDES permits (TXR050000, TXR150000, or any other waste water permit), the Industrial Wastewater Manager (IWM) and/or the Stormwater Services Division representative will notify the TCEQ as appropriate.

- The City may also suspend utility service (water service, sanitary sewer, MS4 access) to a facility or residence 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.
- A list of techniques used for detecting illicit discharges is available in the MS4 Screening and Illicit Discharge Inspections section of this SWMP (MCM 3.E).

Program Schedule

The City is currently investigating all reports of illicit discharges in accordance with the program identified above; we 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.

C. 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.4.g 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 Sewer Collection Division conducts routine smoke testing procedures and also performs walk-alongs at interceptor routes in search of points of stormwater inflow or discharge and implements repairs as necessary.
- The City will replace or rehabilitate sewer components that are identified as being unreliable in accordance with priorities established by the City. The City has identified key points in the collection system used to divert a portion of peak flows from heavily loaded interceptors to interceptors having excess capacity to take the additional flows. This will assist in preventing wet weather overflows from the sanitary sewers into the MS4.

- The City completed a Sanitary Sewer Evaluation Survey in 2009. This included sanitary sewer collection system flow monitoring and development of computer based system hydraulic modeling used to identify and evaluate flow and capacity characteristics of the collection system. Additionally, the City has completed the development of a Wastewater Collection System 2009-2030 Master Plan that includes projects to address system condition and capacity issues related to existing projected flow conditions.
- The Sewer Collection Division utilizes available manpower to monitor the collection system for stormwater related discharges and to identify stormwater inflow sources during heavy rainfall events. If a wet weather overflow is identified corrective actions are immediately instituted to terminate/mitigate the discharge.
- 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 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.

D. HOUSEHOLD HAZARDOUS WASTE AND USED MOTOR VEHICLE FLUIDS

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.4.h of the City's TPDES permit.

Program Components

The primary objective of the program component is to minimize the potential contribution of pollutants to the MS4, as a result of the improper disposal of used oil, hazardous household wastes and the intentional disposal of collected quantities of grass clippings, leaf litter, and animal wastes into the MS4. The following specific programs are included in this portion of the SWMP.

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

- **Environmental Recycling Center** - The City's Environmental Recycling Center (ERC) 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 ERC is open to all private residents that reside within the city limits of Abilene.

The ERC accepts all household materials, including vehicle wastes (oil, antifreeze, batteries, used oil filters, and tires), chemicals (paint, solvents, pesticides, herbicides, etc.), yard clippings, and tree limbs. These materials are collected for recycling, reuse, or are properly disposed, as appropriate. Wastes are disposed of through an authorized disposal contractor of the Center's Product Exchange Program.

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

These public education efforts incorporate a wide variety of communication strategies, including published information (brochures), television public service announcements (radio, paper, and the City webpage), billboards, presence at trade shows, site tours, and public services (Business Collection Program) 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.

- **Industrial Activity** – The City's Environmental Recycle Center has participated in the Multi-Sector General Permit program since 2006 as a sector N facility.

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 DISCHARGE 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.4.i of the City's TPDES permit.

Program Components

The City has developed and implemented the following measures to identify illicit discharges.

- Illicit discharges, illicit connections, and improper disposals 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 storm water outfalls. Twenty percent of the 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 MCM 8 – Monitoring, Evaluation and Reporting.
 - Citizens will be advised to call the Stormwater Services Division and the Water 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 educated and instructed on how to report any suspected illicit discharge, illicit connection, and/or improper disposal to the Stormwater Services Division.
 - The Stormwater Services Division will conduct inspections of industrial facilities, as part of the Industrial Facility Inspection Program, for illicit discharges, illicit connections and improper disposals. Additionally, the 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 discharges, illicit connections, and improper disposal. The Environmental Health Division also performs inspections on pools, restaurants, septic systems, and other facilities that have potential for illicit discharges, illicit connections, and/or improper disposal. Environmental Health Division staff have been educated and instructed on how to implement corrective actions for these situations.
 - The City will evaluate the results of its storm water monitoring data for unusual characteristics that might indicate an illicit discharge, illicit connection, and/or improper disposal.
- If a potential illicit discharge, illicit connection, or improper disposal is identified, the IWM and/or a Stormwater Services 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, illicit connection, or improper disposal 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 and/or the pollutant of concern. A decision regarding whether or not testing should be performed will be made after reviewing the specific situation encountered and then prioritize on the basis of magnitude and the nature of the suspected discharge.

- Should an illicit discharge, illicit connection, or improper disposal be confirmed, the IWM or Stormwater Services 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 connection/illicit discharges investigations and the outcome of the field investigations.
- The number of illicit connections/illicit discharges eliminated.
- The number of sanitary sewer overflows investigated by the Water Department.

F. NPDES AND TPDES PERMITTEE LIST

This section describes a program to compile a list of dischargers 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.4.j of the City's TPDES permit.

Program Components

The City has completed the compilation of the list of dischargers that discharge directly to the MS4 and have 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.

G. MS4 MAP

This section describes a program to maintain a current MS4 map that illustrates the location of all MS4 outfalls and waters of the United States that accept the drainage from these outfalls. This program has been developed in compliance with Part III.B.4.k of the City's TPDES permit. The City of Abilene was unable to locate the 40 CFR §122.26 section that requires this portion of the TPDES permit requirement.

Program Components

The City has implemented the MS4 map that details all known publicly owned MS4 outfalls and their receiving waters. The Stormwater Services Division has documented 788 outfalls throughout the MS4 that include drop inlets, concrete flumes, surface drains, street culverts, and

any other drainage conveyance deemed to be an outfall. The map also includes the waters of the United States that receive the water conveyed by these outfalls.

- The MS4 map was created by Stormwater personnel utilizing the City's Arc Reader GIS system. Initially, Stormwater maintenance staff was tasked with the identification of all drainage ways throughout the City. The information acquired from this survey was entered into a layer for the ArcReader system as well as into a database that Stormwater created that labels each outfall into a grid system. The database also includes an ID number, Location, Material (concrete, earthen, etc.), Miscellaneous information, and the size of the outfall. Once this information was entered the Stormwater Inspection and Permit Specialist and Stormwater Services Administrator performed an Outfall Reconnaissance Inventory (ORI) of each grid and the outfalls within to determine if each outfall met the requirements of an outfall, ownership of the outfall (private, city, or TXDOT), and locate any outfalls missed in the initial survey. This ORI was completed in November 2011 and Stormwater will soon be moving into the next phase of the Dry Weather Screening Program. For additional information on the Dry Weather Screening Program see MCM 8 – Monitoring, Evaluation and Reporting.

Stormwater will continuously update the MS4 map as new outfalls are built or modified into the MS4 system. To assure that these new outfalls are added the Stormwater Services Administrator works closely with Engineering Services and Planning and Zoning to receive information regarding new structures. Once notified of the new outfall the Administrator will add it to the MS4 map and outfall database.

- New MS4 Areas: The Stormwater Services Division will conduct a full review of all new areas (annexations) that are added to the MS4. Along with the physical inspection of all these areas, education brochures will be provided to new residents and business owners.
- Existing MS4 Areas: All existing portions of the MS4 have been evaluated per the requirements of this section. However, the City will continue over the next year finalizing the program's database and inspection schedule. The SWMP will be updated accordingly.

Program Schedule

The City is currently working to complete the procedures identified above and will continue to do so 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 outfalls designated on the MS4 Map.
- The number of outfall inspections conducted.

I. 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.4.1 of the City's TPDES permit.

Program Components

The following discussion identifies:

1. Spill Prevention Program; and
2. Spill Response Program.

1. 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 (HAZCOM) procedure 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; these 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 Services Division of the observed conditions. The IWM and/or a Stormwater 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.

2. 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 Services Division. The Fire Department will abate any immediate threats to human health and safety and/or 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 Services Division. The Stormwater Services 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 Article VII. Municipal Drainage Utility – Stormwater Protection ordinance.

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.

MCM 4 – POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

A. POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAM

This section describes a program for providing for the development and implementation of a pollution prevention and good housekeeping program for municipal buildings and operations. This program will be developed in compliance with Part III.B.5.a of the City's TPDES permit.

Program Components

The City of Abilene has identified the following list of municipal facilities and operations that will be included in the Pollution Prevention and Good Housekeeping Program.

- Municipal Facilities
 - Stormwater Services Maintenance yard
 - Streets & Maintenance Services yard
 - Solid Waste Services yards – Refuse Collection facility, *Environmental Recycle Center* & Container Maintenance facility
 - Traffic Engineering facilities - Sign Shop & Traffic Signal Shop
 - Water Department facilities - *Buck Creek WWTP*, *Hamby WWTP*, Grimes WTP, Northeast WTP, & Hargesheimer WTP
 - Fleet Maintenance facility
 - Parks yards - Rose Park facility, Lee Complex facility, and Nelson Park facility
 - Abilene Zoo
 - *Abilene Regional Airport*
 - *CitiLink facility (public transit)*

**italic facilities currently operate under a TPDES MSGP Permit*

- Municipal Operations
 - Stormwater maintenance operations
 - Streets maintenance operations
 - Solid Waste operations (Container Maintenance operations & ERC)
 - Traffic Sign and Signal operations
 - Water Department operations
 - Fleet Maintenance operations
 - Abilene Zoo operations
 - Airport operations
 - Custodial Services operations
 - Facilities Maintenance operations
 - CitiLink (public transit)

Within a year of the issuance of the permit (August 2012) the City will prepare a comprehensive City-wide Pollution Prevention and Good Housekeeping Handbook to be followed by all City buildings and municipal maintenance operations. Additionally, for each facility and operation listed above the City will prepare an addendum that will outline specific pollution prevention and good housekeeping measures to reduce the discharges of pollutants to the maximum extent

practicable. Addendums will not be prepared for municipal buildings/operations that are subject to and in compliance with TPDES MSGP TXR050000, which include the *Environmental Recycle Center, Buck Creek Waste Water Treatment Plant, Hamby Waste Water Treatment Plant, Abilene Regional Airport, and CitiLink*.

Included in this program the City will provide training for all employees at these identified facilities and those employees that are involved in the designate municipal operations.

Program Schedule

The City is currently working to complete the development and implementation of the program identified above. A completion date of August 2012, one year after the issuance of the permit, has been established.

Performance Measures

The City will develop Performance Measures at the completion of the development and implementation of this program.

B. WASTE HANDLING

The proper disposal of waste removed from the MS4 and/or from other municipal operations will be included in the Pollution Prevention and Good Housekeeping Handbook. Specifics waste removal requirements for each location identified above will be included in each sites addendum.

C. 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.c 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. The State Legislature has 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 include controls to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers in the Pollution Prevention and Good Housekeeping Handbook.

- 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 Department's XERISCAPE program. Coalitions have been 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.

- The City of Abilene's Environmental Health Division and Parks Division are in compliance with TCEQ's new Pesticide General Permit TXG870000.

Program Schedule

The City is currently performing all aspects of the Pesticide, Herbicide, and Fertilizer program 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.

MCM 5 – INDUSTRIAL AND 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.6 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; however, 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 Services Division re-inspects 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 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 and/or industrial materials 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.B.9.c.(5), 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’s MSGP TXR050000 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 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 Services 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 Services Division.
- The number of inspections conducted at “no exposure” facilities by the Stormwater Services Division.
- The number of new Notice of Intent’s received.
- The number of No Exposure Certifications received.

MCM 7 – CONSTRUCTION SITE STORM WATER RUNOFF

This section describes a program to limit the discharge of pollutants from construction sites into the MS4. This program has been developed in compliance with 40 CFR §122.26(d)(2)(iv)(D) and Part III.B.7 of the City's TPDES permit.

Program Components

The City's Construction Site Stormwater Runoff section consists of the following components:

- A. Erosion and Sedimentation Control
- B. Waste Control
- C. Inspections and Enforcement
- D. Training, Education and Notification for Construction Site Operators

A. EROSION AND SEDIMENTATION CONTROL

- 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.
- 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 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.

B. WASTE CONTROL

- 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 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 Services Division.

C. INSPECTIONS AND ENFORCEMENT

- The City's Municipal Drainage Utility Ordinance provides the Stormwater Services 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.
- All construction sites within the service area of the MS4 will be subject to inspection by City staff. Stormwater maintains a list of construction sites that discharge directly to the MS4 and meet the requirements of the TPDES permit. Additionally, Stormwater maintains a list of construction sites that don't meet the TPDES permit requirements (<1.0 acres and not part of a larger common plan of development) but have a high probability of discharging pollutants to the MS4. The City has the authority to inspect these sites and require BMP's and good housekeeping measures if deemed necessary, per City ordinance.
- 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.
- 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.
 - Issuance of a Stop Work Order.
 - Bring monetary enforcement actions for any violations of the City Code.

D. EDUCATION, TRAINING, AND NOTIFICATION FOR CONSTRUCTION SITE OPERATORS

- The City has produced written material describing the City's policies and TPDES requirements concerning water quality controls at construction sites. These materials are distributed to the developers and/or contractors when site plans or building permit applications are submitted. Additionally, the City of Abilene makes these documents, along with other stormwater quality texts, available to the public in a kiosk located outside the Building Inspections office.

Notice has been placed on the “New Commercial Building (form B-12A)” and the “New Single Family Building Permit (Form B-1)” to notify building permit applicants of the requirements for the submittal of a Notice of Intent or Construction Site Notice. Stormwater has also included in the City of Abilene’s Building Permit Application the following statement that must be signed for when a permit is requested.

I hereby certify that I will adhere to City Ordinance (Article VI. Municipal Drainage Utility – Stormwater Protection) and the Texas Commission on Environmental Quality’s Texas Pollutant Discharge Elimination System permit TXR150000 during construction activities, if applicable. Erosion control will be implemented to assure prevention of soil and other construction debris from entering City of Abilene streets and water conveyances, as required by City Ordinance.

- The Stormwater Services Division is a member of the City’s Site plan Review Committee and reviews all commercial property site plans submitted to the City of Abilene to determine if the site(s) meets the requirements of TPDES TXR15000. Once a determination has been made whether the site is subject to permitting the Stormwater Services Administrator will provide, if applicable, detailed written documentation to the developer regarding their requirements under TPDES TXR15000.
- The Stormwater Services Administrator performs review of all subdivision plats submitted to the City through the Engineering Division. Most local engineering firms, contractors, architects, etc. are knowledgeable of the City’s/State’s stormwater requirements and put a statement regarding how they will meet the City ordinance and TPDES stormwater construction site requirements. If no notice is located on the subdivision plans the Stormwater Services Administrator will require that a statement is placed on the plats that notate these requirements.
- The Stormwater Construction Site Inspector performs construction site stormwater runoff education to builders, contractors, and/or developers new to Abilene. If the inspector arrives on-site and determines that the builder, contractor, and/or developer are not familiar with the TPDES TXR150000 program they are provided with documentation to explain the program and answer any questions that may arise during the initial inspections.
- 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.

MCM 7 – PUBLIC EDUCATION AND OUTREACH AND PUBLIC INVOLVMENT AND PARTICIPATION

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 measures 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.8 of the TPDES permit.

Program Components

The City's public education activities consist of the following components:

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

A. PUBLIC REPORTING OF ILLICIT DISCHARGES

The City of Abilene will perform the following public reporting of illicit discharges/improper disposal public education efforts.

- 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 Department.
- The City will promote the use of the 24-hour service line through the inclusion of a one line messages on the Water 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 (PSA's) that will be made available on the City's Channel 7, website, and other social media outlets. At least two announcements will be prepared each year. The PSA's for the current permit term include: pool filter backwash, litter control, household hazardous waste, pesticides, herbicides, and fertilizers, and the reporting the illicit discharge of these pollutants. To kick off these series of PSA's the City will run a PSA that illustrates the flow pattern of the MS4.
- The City has developed a series of water quality brochures that emphasize non-point source pollution issues, including public monitoring of illicit discharges. Brochures will be printed, as needed, for distribution at civic club presentations, City offices, and public environmental events. These brochures include: Mobile Washing, Spill Handling, Antifreeze, Automotive Repair, BMP's for Restaurants and Food Establishments, Fertilizers and Pesticides, Charity Car Wash, Stormwater Ponds, Swimming Pool and Spa, Hazardous Substances, etc.

- To reinforce the non-point source control message, billboard advertising will be obtained. Approximately four sign months will be obtained per year.
- The Stormwater Services Division annually provides stormwater education book covers to local schools. These book covers provide illustrations of illicit discharges, recycling, and other fun facts for all ages.
- To reach visitors to Abilene Stormwater will work with the Abilene Convention & Visitors Bureau to provide bookmarks with stormwater information. Each year the Abilene Convention and Visitors Bureau distributes “goodie bags” to visitors via conventions or other business meetings that occur in Abilene.

Program Schedule

The City is currently performing, or will be performing by the end of the first year of the current permit term, 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 notices mailed to citizens on water bills.
- The number of public service announcements provided to the media.
- The number of water quality brochures distributed.
- The number of billboard messages displayed and the duration of each display.
- The number of book covers provided to the Abilene Independent School District.
- The number of bookmarks distributed through the Abilene Convention & Visitors Bureau.
- The number of “Guidelines for Proper Disposal of Swimming Pool, Spa, Fountain, and Filter Backwash Water” brochures distributed to pool installers, suppliers, and citizens.

B. LITTER (FLOATABLES) CONTROL

The City of Abilene has, or will in the next year (August 2012), implemented the following Litter (Floatables) Control programs

- Adopt-A-Street/Adopt-A-Creek: The Stormwater Services Division is currently finalizing the development of the Adopt-A-Street/Adopt-A-Creek program. In the past, KAB had the Adopt-A-Spot program; however, financial restraints kept the program from thriving. Therefore, Stormwater decided to develop the Adopt-A-Street/Creek programs and

partner with KAB. Additionally, Stormwater has partnered with a local interest group “Together in 2011” to disseminate the information to the public to assist in getting local businesses involved. In 2011, Stormwater has received eighteen pledges from groups who have pledged two years of their time (four times a year) to adopt local streets and creeks; several other groups have shown interest as well. Each group that participates will get a sign installed at their location notating that this is an Adopt-A-Street/Creek area and get the name of their entity placed as well. The Solid Waste Services Division has agreed to pick up the trash bags at a determined location after each clean-up event.

- Adopt-A-Campus: The Stormwater Services Division has partnered with KAB to initiate the Adopt-A-Campus Program for local schools. The program is focused on the Abilene Independent School District. This program was an innovation of Stormwater; however, it is funded by KAB with the City having advisory input only. In 2011, twelve campuses have joined the program.
- Teen Court: The Stormwater Services Division has developed an agreement with the City of Abilene’s Municipal Court Division to assist in providing teens with various violations an opportunity to complete community service hours. Municipal Court provides the teen with options for community service including conducting trash clean-up on local streets and/or creeks. The teen is responsible for contacting the Stormwater Education Coordinator for locations and after completion the teen will let Stormwater know how many bags were collected.
- Floatable Monitoring: Per TPDES Permit No. WQ0004692000 the City of Abilene will install two monitoring locations for removal of floatable materials in stormwater discharge to or from the MS4. The material from these monitoring locations will be collected at a minimum of twice per year.

Program Schedule

The City is currently performing, or will be performing by the end of the first year (August 2012) of the current permit term, 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 Adopt-A-Spot/Adopt-A-Creek locations.
- The number of Adopt-A-Campus locations.
- The number of teens participating in the Teen Court Program.
- The amount of material collected from the two floatable monitoring locations.

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.
- The City incorporates information about household waste and vehicle fluid disposal in its various public education efforts, through the Keep Abilene Beautiful program and the Solid Waste Services' Environmental Recycling Program.
- These public education efforts incorporate a wide variety of communication strategies, including published information (brochures), television public service announcements (radio, paper, and the City webpage), billboards, presence at trade shows, site tours, and public services (Business Collection Program) 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.

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 Used Motor Oil and Household Hazardous Waste brochures distributed.
- The number of public contacts concerning household hazardous waste. Public contacts include citizens utilizing the ERC's for used motor oil and/or household hazardous waste, presentations to civic organizations, fliers, brochures, etc.

D. PESTICIDE, HERBICIDE, AND FERTILIZER MANAGEMENT

The following Pesticide, Herbicide, and Fertilizer Management programs have been, or will within a year of the issuance of the permit (August 2012), implemented by the City of Abilene.

- The Water Department integrates detailed information about the proper use of pesticides, herbicides, and fertilizers, into the Water 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. Stormwater will utilize these coalitions to educate the community on the proper use, application, and disposal of pesticides, herbicides, and fertilizers.
- The Stormwater Services Division has developed Fertilizers and Pesticides – Clean Water Fact Sheet that is readily available to the public via the City's Stormwater webpage and in a kiosk located on the first floor of City Hall. Stormwater also provides book covers to the Abilene Independent School District that provides information regarding the correct use and disposal of pesticides, herbicides, and fertilizers.
- The Stormwater Services Division will be developing and implementing a more thorough Pesticide, Herbicide, and Fertilizer (PHF) program over the next twelve to eighteen months (2011-2012) to better educate the population of Abilene. Stormwater has recently increased its staff to include a Stormwater Education Coordinator, which will enable better management of the PHF program. The following educational opportunities are being discussed for development and implementation to provide additional education for the citizens of Abilene and City of Abilene employees.
 - Create and supply local PHF distributors with educational material such as pamphlets, brochures, and other texts for dissemination to customers and employees.
 - Create and supply local PHF applicators with educational material such as pamphlets, brochures, and other texts for dissemination to employees.
 - Conduct presentations to City staff that are PHF applicators regarding the proper use, application, and disposal of pesticides, herbicides, and fertilizers.

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 Pesticide, Herbicide, and Fertilizer brochures distributed to local businesses and citizens.

E. PUBLIC INVOLVEMENT AND PARTICIPATION

To meet the conditions of this portion of the SWMP the City of Abilene will fulfill the requirements of the permit application renewal process which requires the submitting of public notice in local newspapers (English and Spanish). This process complies with State, Tribal, and local public notice requirements and allows local citizens the opportunity to review the City's Stormwater Management Program; TPDES permit, application information, and provide public comment(s).

Additionally, the City of Abilene posts its SWMP on the Stormwater Services Division's website with a statement that encourages citizens of Abilene to contact the City if they have any questions, comments, and/or concerns with the SWMP.

MCM 8 – MONITORING, EVALUATION AND REPORTING

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.9 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:

A. DRY WEATHER SCREENING PROGRAM

The City will conduct a dry weather screening program for all of its stormwater outfalls. Twenty percent of the 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 City of Abilene has completed its field verification and GIS mapping of subject outfalls to be inspected for the Dry Weather Screening Program. The City has identified 788 outfalls for inspection. The dry weather screening will consist of a visual inspection of each identified outfall. The inspector will record observations on a field data sheet that includes qualitative parameters along with the structural integrity of the stormwater structure. If the inspector observes water flowing, the inspector will note the following characteristics: odor, color, clarity, floatable, deposits/stains, vegetation condition, structural condition of outfall, and biological information. If it is determined that the flow contains contaminants, the inspector may obtain a sample for laboratory analysis to be performed per Part V, Section B.2 of the City's TPDES Permit. 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. Any structural deficiencies identified will be forwarded to the Stormwater Maintenance Supervisor to be schedules for repair or replacement.

B. WET WEATHER SCREENING PROGRAM

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 Services Division representative who will investigate the flow in accordance with the methods previously described for illicit discharges.

C. INDUSTRIAL AND HIGH RISK RUNOFF MONITORING PROGRAM

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.9.c.(1), (2), (3), (4), and (5) of the City's MS4 permit.

D. STORM EVENT DISCHARGE MONITORING

The City of Abilene conducts Option 1: *Representative Monitoring* in accordance with Part IV, Section A.1. The City will continue to follow the requirements of Part IV, Section A.1 through this permit term.

E. FLOATABLES MONITORING

Per the Permit terms, the City of Abilene will install two monitoring locations for the removal of floatable material in discharge to or from the MS4. The materials from these monitoring locations will be collected at a minimum of twice per year. The City will implement these two monitoring locations by the end of the first permit term (August 2012). Stormwater will include in the MS4 Annual Report to the TCEQ the amount of material collected by weight, volume, or other means found practical.

Program Schedule

The City is currently performing, or will be performing by the end of the first year of the current permit term, 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 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.
- Storm Event Discharge Monitoring information will be included in the Discharge Monitoring Reports (DMR's) attached to the Annual Report.
- Floatable Monitoring information will be included in the second Annual Report of this permit term. Information will not be available for the first Annual Report due to lack of available data.