

CITY OF MIDLAND

STORM WATER MANAGEMENT PLAN

1.0 EXECUTIVE SUMMARY

The City of Midland originally developed a storm water management plan (SWMP) as required for coverage under the Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 in 2007. This plan has been updated annually since then and has now been revised to incorporate the new TPDES General Permit adopted in December 2013.

The SWMP includes a listing of Best Management Practices (BMP's) that have been and will be implemented by the City in order to achieve the regulatory standard of reducing pollutants in the City's storm water to the "maximum extent practicable." Existing City of Midland storm water programs and activities designed to protect the City's water quality will be supplemented with new BMP activities required in the new permit.

For the 2007 permit, measurable goals and an implementation schedule were developed for each of the BMP's in the SWMP. The BMP's, measurable goals, implementation schedule, and final SWMP were developed with input from the City's Storm Water Advisory Committee and review by the City Council. BMP's, measurable goals, and the implementation schedule were selected based upon their ability to meet specific permit requirements and to reduce pollutants in the City's storm water to the maximum extent practicable. They were also selected based upon a general assessment of BMP effectiveness, applicability to Midland, and costs associated with implementation of the BMP's.

Effectiveness of the selected BMP's, and success in achieving the selected measurable goals has been reviewed annually, and appropriate changes made. Additional BMP's and measurable goals were selected to comply with the 2013 permit.

2.0 PLAN DEVELOPMENT PROCESS

Permit Requirement and Coverage

The City of Midland owns and operates a Municipal Separate Storm Sewer System (MS4), which is a system of roads, streets, catch basins, curbs, gutters, ditches, man-made channels, and storm drains. Midland also contains urbanized areas according to the census map in the 2000 and 2010 censuses, and therefore the City must obtain authorization from the Texas Commission of Environmental Quality to discharge stormwater from the MS4.

The City of Midland (City) is eligible for coverage under Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR040000 (General Permit). The coverage of the permit is limited to those areas that are located within the urbanized area and within the city limits of Midland, although most BMP's will be applicable to the entire City.

In the 2013-2018 permit, TCEQ has identified four population categories for cities eligible to be covered by the permit. The City of Midland is classified as the highest category, level 4, for cities with population exceeding 100,000 in the urbanized area, as defined by the 2010 census.

Purpose and Scope

The City of Midland has developed a storm water management plan (SWMP) in accordance with TPDES requirements for obtaining authorization for storm water discharges and certain non-storm water discharges. This SWMP has been developed in accordance with guidelines published by the Texas Commission on Environmental Quality (TCEQ) for coverage under the referenced permit. The SWMP has been developed to facilitate the City's efforts in reducing storm water pollutants from their MS4 to the maximum extent practicable as required by the TPDES General Permit.

The SWMP describes specific actions that will be taken over a five-year period to reduce pollutants and protect the City's storm water quality. The specific activities to be implemented are referred to as "Best Management Practices" (BMP's). Various BMP's have been developed for each of the six "Minimum Control Measures" (MCM's) required by the General Permit. The SWMP also sets measurable goals and provides a schedule for the implementation of the BMP's. Implementation of the selected BMP's is expected to result in reductions of pollutants discharged into Midland's drainage channels, parks, and playa lakes.

Participating Entities

Implementation of the City of Midland's SWMP does not rely upon activities of any other entity. No inter-local agreements were formed. However, the storm water advisory committee contained of representatives of TxDOT, Midland County, and Midland College, which at the time, were viewed as possible partners.

BMP Selection

In anticipation of stormwater quality regulations, a Storm Water Advisory Committee was formed in 2002 to provide guidance in the selection of BMP's and the development of Midland's SWMP.

Permit Term from 2007 - 2013

The City of Midland took credit for existing programs that would limit pollutant discharges. Details of the City's existing storm water-related programs were collected, summarized, and categorized into one of the six MCM's required by the General Permit. Additional BMP's were selected to supplement the City's existing programs and to fulfill the requirements of the Permit.

During the permit term, annual reports were submitted to TCEQ, and the Best Management Practices that did not seem to be achieving results were eliminated or replaced with other BMP's.

Permit Term from 2013 - 2018

The new permit is far more specific in its requirements than the permit for the first term. Thus, many new BMP's and Measurable Goals were added to the implementation plan. Selection of these items was guided by applicability to the Midland MS4 and where possible, by how easily the BMP could be integrated into the Midland operational structure and standard practices.

Selection of Measurable Goals and Implementation Schedule

Specific measurable goals have been developed for each BMP selected for inclusion into the City's SWMP. In accordance with the General Permit requirements, measurable goals have been developed to provide a mechanism for measuring the success of the City's SWMP toward reaching the goal of protecting the City's water quality and reducing pollutants to the maximum extent practicable. As provided under the General Permit, the City may phase in the implementation of the SWMP over a five-year period. Accordingly, a reasonable progression of measurable goals was developed for each of the selected BMP's. The goals were selected with a consideration toward developing a logical progression of implementation, assessing the ability to measure and track progress, and working within budgetary constraints.

Implementation Procedures for the Stormwater Management Plan

The stormwater management plan for the previous permit was chiefly administered and documented by the City Engineer's office in the Engineering Services Department. The GIS (geographic information system) Division has been instrumental in assisting with the web site and with the many mapping activities required by the permit.

The program elements were developed with assistance of the end users of the program, including the staff at the operations complex for the City, including traffic, street and water/wastewater maintenance yards. The City garage staff have also helped to verify compliance with permit requirements. Health Department and Code Administration have been involved in their roles of illegal dumping and other non-stormwater discharge investigations. Fire

Department staff respond to spills, which often are located in the MS4 roadways. The minimum control measures listed below also have a column noting probable City involvement.

In the future, all of the above groups will need to remain active in the implementation of the program. There do not seem to be any improvements available as of the date of this report, for streamlining the process.

3.0 LIST OF BMP'S, MEASURABLE GOALS, AND IMPLEMENTATION SCHEDULE

In accordance with TCEQ's General Permit requirements, Midland's SWMP includes an implementation plan for BMP's in each of six Minimum Control Measures. The six minimum control measures are listed below. Additional programmatic and regulatory requirements were included here as MCM 0, so measurable goals not associated with any specific MCM could be grouped in the same format.

0. Regulatory and Programmatic Elements
 1. Public Education, Outreach, and Involvement
 2. Illicit Discharge Detection and Elimination (IDDE)
 3. Construction Site Stormwater Runoff Control
 4. Post-Construction Stormwater Management in New Development and Redevelopment
 5. Pollution Prevention and Good Housekeeping for Municipal Operations
 6. Industrial Stormwater Sources
 7. (Optional) Authorization for Construction Activities where the Small MS4 is the Site Operator

A summary of specific requirements of each MCM are provided below. Complete text of each item can be found in the appendix, which is the actual TXR040000 permit. Following each listing of MCM requirements, a table is provided that lists the BMP's selected for that MCM, along with a description of the BMP and its measurable goals and implementation schedule.

MCM 0: Regulatory and Programmatic Elements

This permit has specific requirements requiring the City of Midland to adopt ordinances or other legal authority that meet the following requirements. The SWMP is required to include an MCM related to the adoption of legal authority.

The City of Midland will adopt legal authority that includes the following elements that are required by the permit and apply to Midland. This authority will:

- ★ Be adopted within 2 years of permit date; the deadline is December 13, 2015.
- ★ Provide authority to prohibit illicit discharges and connections.
- ★ Give authority to control spills and prohibit dumping materials other than stormwater.
- ★ Give authority to require compliance.
- ★ Give authority to require structural BMPs, including maintenance.
- ★ Give authority to receive and collect information needed to assess compliance from construction sites, land developers, and industrial and commercial owners.
- ★ Give authority to enter and inspect private property related to stormwater.
- ★ Give authority to respond to non-compliance with BMPs.
- ★ Give authority to assess penalties.
- ★ Give authority to enter into interagency agreements.
- ★ Can give the City leeway not to require elimination of a non-stormwater discharge unless it is identified as a significant source of pollutants to the MS4.
- ★ Address construction stormwater and include sanctions to ensure compliance.
- ★ Either require certain minimum measures to be met, or require compliance with TPDES construction permit.
- ★ Prohibit discharge of concrete washout, water well drilling wastewater, washout of paint and other construction materials, dumping of fuel, oils, or other maintenance pollutants, soaps and solvents used for vehicle washing, and discharges from dewatering.
- ★ Address post-construction runoff, requiring structural and non-structural BMPs that are appropriate and protect water quality.

Other permit requirements not part of any minimum control measure include:

- ★ The permit states that the permittee has a responsibility to ensure that it has funding to implement the requirements of the permit.
- ★ A standard operating procedure will be developed for enforcement measures.

There are also special requirements for certain locations. The following analysis shows that none of them will apply to the City of Midland, and Midland will have no extra requirements related to them.

- ★ There are extra requirements if the city in question drains to a water that has an approved TMDL.
 - ◆ The drainways in Midland eventually connect to the Colorado River and to Lake Spence.
 - ◆ There is a TMDL for Lake E. V. Spence, Segment 1411, for Sulfate and Total Dissolved Solids.
 - ◆ However, the study area used for the TMDL allocations did not extend upstream of Big Spring, Texas. This reflects the reality that flow from the City of Midland does not usually reach Lake E.V. Spence.
 - ◆ The TMDL allocates certain pollutant loads to entities in the watershed. The City of Midland is not included in these allocations.
 - ◆ It is concluded that the City of Midland has no additional requirements related to the Lake E.V. Spence TMDL.

- ★ Impaired water body. If there is a discharge is DIRECTLY to an impaired water body, but there is no TMDL for that body, there are additional requirements.
 - ◆ The nearest named segment of surface water to Midland is Beals Creek, segment 1412B, whose upstream end is in Howard County west of Big Spring.
 - ◆ Thus the City of Midland does not discharge directly to any water body.
 - ◆ Although segment 1412B is listed as an impaired water body in the 2012 Texas 303(d) list of impaired water bodies, additional requirements will not apply to Midland, Texas. Beals Creek was found to be impaired with bacteria and selenium.

- ★ Edwards Aquifer areas have additional requirements
 - ◆ The City of Midland does not lie over the Edwards Aquifer recharge zone.

MCM 0: Regulatory and Programmatic Elements

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
0	Legal Authority	Adopt legal authority to prohibit and eliminate illicit connections and discharges.	Engineering, Legal	New		Ordinance adopted on 2nd reading prior to 12/13/15			
0	Enforcement Procedures	Develop enforcement standard operating procedures as policy or in ordinance.	Engineering, Code	New			Copy of procedures kept with annual report		

MCM 1: Public Education, Outreach and Involvement

A summary of the 2013-2018 permit requirements for this Minimum Control Measure, as applied to the City of Midland, includes a comprehensive stormwater education and outreach program to educate public employees, businesses, and the public of hazards associated with illegal discharges of waste and impact on local waterways, and how to reduce pollutants. Midland will meet these minimum requirements using the selected BMPs. They will:

- ★ Comply with state notice requirements when implementing activities related to the SWMP.
- ★ Define goals and objectives of the program based on high priority community wide issues.
 - ◆ The stormwater advisory committee concluded that Midland has few water bodies likely to be impacted by stormwater runoff pollution. The majority of rainfall events is conveyed outside the city via Midland Draw, which is normally dry. In general, runoff from this area soaks into the earth and does not reach downstream receiving bodies such as Lake Spence. Therefore, it should be a top priority to protect those few water bodies located within or near the City.
 - ◆ Due to high winds, blowing trash continues to be an issue in this region. This material can wash into draws and drainage structures in the infrequent heavy rains.
- ★ Midland has identified the target audiences.
 - ◆ City employees that could spot illicit discharges or connections.
 - ◆ City employees needing training on good housekeeping and pollution prevention.
 - ◆ City staff involved in the construction stormwater review and inspection process. Note that the City does not have any full-time staff for these purposes.
 - ◆ The general public.
- ★ Has and will develop or use educational materials.
 - ◆ Two brochures for distribution have been developed by the City of Midland, including “Floods Happen, Even in Midland!” and “Storm Water Quality Management in Midland, TX”.
 - ◆ Additional materials for educating the public are readily available online and can be adapted for use in this region as needed.
 - ◆ The City of Midland purchased a stormwater training video during the first permit phase and used it to train employees early in that cycle.
 - ◆ Other training materials are available for purchase or download.
- ★ Has and will determine cost effective and practical methods for distribution of materials.
 - ◆ The City has determined that the storm water web site is the best method to distribute information.
 - ◆ A BMP to use a utility bill insert has been determined to be outmoded and will be eliminated in favor of an upgraded web site presence.
- ★ If feasible consider using public input in the implementation of the program.
 - ◆ A Stormwater Advisory Committee was used to create the original SWMP.

- ★ If feasible create opportunities for citizen participation.
 - ◆ The City of Midland continues to support various litter pickup programs that assist in ridding the drainage facilities and vacant lots of debris.

- ★ Ensure the public can easily find information about the SWMP.
 - ◆ The SWMP is to be included on the City web site.

Public Input in the SWMP Development Process

For development of this 2013-2018 permit SWMP, it was determined that conditions had not significantly changed with respect to stormwater quality issues since 2007. Therefore, public input from the 2007 permit term was considered to be still valid.

City of Midland took a proactive approach to stormwater management, creating a Storm Water Advisory Committee in 2002 with the task of advising City Council on issues of stormwater quality management. The Advisory Committee also chose to report and advise on stormwater quantity management.

Advisory Committee meetings were held on the following dates:

- June 20, 2002,
- October 24, 2002
- November 21, 2002
- January 16, 2003
- May 8, 2003
- August 28, 2003
- December 18, 2003

The Storm Water Advisory Committee meetings culminated in the development of a Draft Storm Water Management Plan. Review and comment was provided by the Midland City Council during a Council briefing session on February 10, 2004. Revisions were made by City Staff in 2008 after the TPDES Small MS4 permit was issued by TCEQ.

MCM 1: PUBLIC OUTREACH, EDUCATION, AND INVOLVEMENT

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals					
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018	
1	Public Notice	When notified by TCEQ, publish notice in paper stating TCEQ is reviewing the NOI and SWMP	Engineering	New	Put copy of notice with annual report					
1	Stormwater Web Site	Maintain and update Storm Water Web Site, including feedback and complaint opportunities	Engineering	Revised	Print page when site is updated	Print page when site is updated	Print page when site is updated	Print page when site is updated	Print page when site is updated	
1	Stormwater Web Site	Put SWMP on the web site	Engineering	New	Verify it is there					
1	Stormwater Web Site	Solicit feedback through the web site, including illicit discharge reports.	Engineering	New	Contact form is present	Contact form is present	Contact form is present	Contact form is present	Contact form is present	
1	City Cleanup	Continue to sponsor Keep Midland Beautiful cleanup program as opportunity for citizens to participate	City Management		Verify Budget	Verify Budget	Verify Budget	Verify Budget	Verify Budget	

MCM 2: Illicit Discharge Detection and Elimination

The discharges into the street system, channels and ponds in Midland that are authorized under this permit include:

- ★ Stormwater runoff
- ★ The following Non-Stormwater flows:
 - ★ Water line flushing discharges, but not if hyperchlorinated
 - ★ Runoff from irrigation
 - ★ Discharges from potable water sources that don't violate Texas Surface Water Quality Standards
 - ★ Diverted stream flows (there are none in Midland)
 - ★ Rising ground waters and springs
 - ★ Uncontaminated ground water infiltration
 - ★ Uncontaminated pumped ground water
 - ★ Foundation and footing drains
 - ★ Air conditioning condensation
 - ★ Water from crawl space pumps
 - ★ Individual residential vehicle washing
 - ★ Flows from wetlands and riparian habitats
 - ★ De-chlorinated swimming pool discharges that don't violate Texas Surface Water Quality Standards
 - ★ Street wash water, but excluding street sweeper waste water
 - ★ Flow from emergency firefighting activities, not including washing of trucks, training activities, test water from fire suppression systems, etc.
 - ★ Allowable non-stormwater discharges defined as: those non-stormwater flows that have not been identified by the City of Midland or by TCEQ as a significant source of pollutants to the City of Midland.

Any flow into the MS4 that is not on the list above is classified as an illicit discharge. Illicit discharges could also include illegal dumping or connections to the storm drain system of sanitary sewer or other unauthorized lines. The City will develop, implement and enforce a program to detect, investigate and eliminate such illicit discharges. Following is a list of the permit requirements that apply to the City of Midland:

- ★ Mapping
 - ◆ Keep the MS4 map updated, including location of all outfalls and name of all surface waters receiving flow from the outfalls.

- ◆ Midland will have procedures for identifying priority areas, and a list of all priority areas.
- ◆ Put priority areas described below on the map.

★ Training

- ◆ Have methods for informing and training MS4 field staff that may observe an illicit discharge or connection as part of their normal job. Materials and attendance lists must be maintained for TCEQ review.

★ Detection of Illicit Discharges

- ◆ Publicize and facilitate public reporting of illicit discharges (See MCM 1)
- ◆ Midland will develop a written dry weather field screening program to detect illicit discharges. It must include:
 - Procedures to identify priority areas, a list of all such areas, and document why they were selected.
 - Have written procedures for observing flows from outfalls after 72 hours dry weather.
 - Visit priority areas first and screen all of the priority areas within the permit term.
 - Have written procedures to determine which flows will be screened.
 - At a minimum, when visual observation shows signs of contamination, the City shall conduct a field screening analysis for indicator pollutants, and document the method used.

★ Investigation of Illicit Discharges - Have procedures for tracing the source of illicit discharge.

- ◆ Have procedures for responding to illicit discharges and spills, including inspections in response to complaints.
 - High risk of pollution raises the priority of investigation.
 - Report any threat to human health or the environment to TCEQ
 - Document all investigations, with results, follow-up and date investigation closed.
- ◆ Investigate the source of illicit discharges that come to the attention of the City.

★ Elimination of Illicit Discharges –Have procedures for removing the source of the illicit discharge.

- ◆ Notify responsible party of the problem and their responsibility to correct.
- ◆ Midland must have procedures to prevent and correct leaking onsite sewage disposal systems that discharge to the MS4.
- ◆ Midland will conduct a follow-up investigation to verify the illicit discharge has been eliminated. The City can recover costs from the responsible party.
- ◆ Marking of storm drain inlets was a conditional BMP in the first permit cycle, to be implemented if storm drains were found to be dumping sites. This has not been observed, so the BMP has been removed. The option of marking inlets in certain areas is still available as a response to any incident.

MCM 2: Illicit Discharge Detection and Elimination

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
2	MS4 Mapping	Continue to update GIS with new storm sewer as it is constructed, and to record new outfall data.	Engineering, GIS	Revised description	Perform spot check of GIS in developing areas	Perform spot check of GIS in developing areas	Perform spot check of GIS in developing areas	Perform spot check of GIS in developing areas	Perform spot check of GIS in developing areas
2	MS4 Mapping	Upgrade outfall and surface water data with additional data fields as needed.	Engineering, GIS	New		GIS begin project	Engineering Verify project		
2	MS4 Mapping	Map priority screening areas	Engineering, Transportation, GIS	New		Define priority areas and create boundary			
2	IDDE Training	Train field staff that may find illicit discharges.	Transportation, W/WW, Code, Health, Fire	Revised training audience		Keep attendance list	Keep attendance list	Keep attendance list	Keep attendance list

MCM 2: Illicit Discharge Detection and Elimination

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
2	Detection of Illicit Discharges	Procedures for observing flows in dry weather, choosing which flows to analyze, and analysis for pollutants if contamination is suspected	Engineering, Transportation	New		Write procedures for observation, for choosing flows to analyze, and for analysis.			
2	Detection of Illicit Discharges	Field screening of priority areas - enhancement of prior program	Transportation	Revised			Screen 1/3 of priority areas	Screen 1/3 of priority areas	Screen 1/3 of priority areas
2	Investigation of Illicit Discharges	Procedures for responding to illicit discharges and spills, with minimum investigation requirements.	Engineering, Transportation, Code, Health, Fire	New			Update procedures		

MCM 2: Illicit Discharge Detection and Elimination

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
2	Investigation of Illicit Discharges	Investigation of illicit discharges / inspections	Engineering, Transportation, Code, Health, Fire		Document investigations	Document investigations	Document investigations	Document investigations	Document investigations
2	Elimination of Illicit Discharges	Procedures for removing source of illicit discharges, including leaking onsite sewage disposal systems	Engineering, Code, Health, Fire	New				Update procedures	
2	Elimination of Illicit Discharges	Apply procedures for eliminating illicit discharges	Engineering, Health, Code, Fire		Document Corrective Actions	Document Corrective Actions	Document Corrective Actions	Document Corrective Actions	Document Corrective Actions
2	Elimination of Illicit Discharges	Conduct follow up investigation of all illicit discharges found/reported.	Code, Health, Fire		Document Follow-ups	Document Follow-ups	Document Follow-ups	Document Follow-ups	Document Follow-ups

MCM 3: Construction Site Stormwater Runoff Control

The City will develop, implement, and enforce a program requiring operators of small and large construction sites to have stormwater control measures. The City:

- ★ Will have an ordinance and sanctions for non-compliance. See MCM 0 above.
 - ◆ Will prohibit certain types of non-stormwater discharges for construction. These are on the list of non-stormwater discharges not covered by this MS4 permit. See MCM 0 above.
 - ◆ Has two choices for requirements of the ordinance.
 - Ensure that certain minimum measures listed in the permit are effectively implemented for such sites. These measures are substantially similar to the TPDES construction stormwater permit, but this option would give the City an opportunity to add local requirements, such as dust control.
 - As an alternate to specific ordinance requirements, the City can ensure that all such construction sites have developed and implemented a SWP3 in accordance with the TPDES permit for construction stormwater.

- ★ In arid or semi-arid areas such as Midland, the City has an option to delay initiation of vegetative stabilization measures on construction sites. Instead, the City can allow alternative stabilization measures.

- ★ Will have site plan review procedures.

- ★ Will implement procedures for inspecting construction, and for follow-up to ensure compliance.

- ★ Will have procedures for receiving and consideration of information submitted by the public.

- ★ Will ensure staff are trained if they do these things.

- ★ Midland will maintain an inventory of all permitted construction sites.

MCM 3: Construction Site Stormwater Runoff Control

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
3	Construction Site Runoff	Procedures for Site Plan Review	Engineering, Building Official	Revised	Update procedures				
3	Construction Site Runoff	Procedures for Construction Inspection, Follow-up and for Information from Public	Engineering, Building Official	Revised			Update procedures		
3	Construction Site Runoff	Implement and Enforce Program	Engineering, Building Official	Revised	Document Program is Active	Document Program is Active	Document Program is Active	Document Program is Active	Document Program is Active
3	Construction Site Runoff	Train staff whose main job is related to implementing construction stormwater, if any are hired.	Engineering, Code	New	Verify new staff trained	Verify new staff trained	Verify new staff trained	Verify new staff trained	Verify new staff trained
3	Construction Site Runoff	Inventory of current construction sites with NOIs.	Engineering	New	Create inventory	Update inventory	Update inventory	Update inventory	Update inventory

MCM 4: Post-Construction Storm Water Management in New Development and Redevelopment

The City will develop, implement and enforce a program to control stormwater discharges from new development and redeveloped sites that disturb more than one acre, or smaller sites that are part of a larger common plan of development. This program is intended to require that owners or operators of these sites will use a combination of structural and non-structural BMPs appropriate for the community, which protect water quality. The permit requirements that apply to Midland include:

- ★ It will be supported with an ordinance or regulatory mechanism to regulate such discharges. See MCM 0.
- ★ It will include recording enforcement actions and making them available to TCEQ.
- ★ It will Ensure long-term maintenance of structural BMPs.
- ★ If maintenance is by a private owner, the City will require a maintenance plan to be created for any structural control measures, and this plan will be filed of record.
- ★ Midland will develop an inspection program to ensure maintenance of structural BMPs, and keep records of inspections.

MCM 4: Construction Site Stormwater Runoff Control

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
4	Development Requirements	Implement and Enforce Program	Engineering		Continue existing program	Continue existing program	Use new ordinance	Use new ordinance	Use new ordinance
4	Development Requirements	Ensure long-term maintenance of private structural BMPs	Engineering, Code, Planning				File maintenance plans per code	File maintenance plans per code	File maintenance plans per code
4	Development Requirements	List and map structural BMPs, public and private	Engineering					Complete mapping	
4	Development Requirements	Implement Structural BMP Inspection Program	Engineering						Verify Inspections are occurring

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

The City shall develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal activities and municipally owned areas. In this program, the City is required to undertake activities in the following list:

Inventory, Mapping and Prioritization – the City of Midland will:

- ★ Develop and maintain an inventory of facilities and stormwater controls owned by the MS4 in the regulated area. This would include all of the following at a minimum.
 - ◆ Composting Facilities
 - ◆ Equipment Storage and Maintenance Facilities
 - ◆ Fuel Storage Facilities
 - ◆ Hazardous Waste Disposal Facilities
 - ◆ Hazardous Waste Handling and Transfer Facilities
 - ◆ Incinerators
 - ◆ Landfills
 - ◆ Material Storage Yards
 - ◆ Pesticide Storage Facilities
 - ◆ Buildings
 - ◆ Parking lots
 - ◆ Golf Courses
 - ◆ Swimming Pools
 - ◆ Public Works Yards
 - ◆ Recycling Facilities
 - ◆ Salt Storage Facilities
 - ◆ Solid Waste Handling and Transfer Facilities
 - ◆ Street repair and Maintenance Sites
 - ◆ Vehicle Storage and Maintenance Yards
 - ◆ Structural Stormwater Controls
- ★ Midland will show permittee-owned facilities on the MS4 map.
- ★ Midland will review each of these facilities once per permit term for their potential to discharge pollutants.
- ★ Midland will identify a list of high priority facilities that have high potential to generate pollutants, including at least maintenance yards, hazardous waste facilities, fuel storage locations, and others where chemicals have high potential to be washed offsite.
- ★ Midland will document this process by keeping site evaluation checklists.

General Requirements that apply to Midland include:

- ★ Train appropriate employees in pollution prevention and good housekeeping practices. Maintain a training attendance log.
- ★ Dispose of waste materials per state law.
- ★ Have a procedure for disposal of sweepings such that they will not reenter the MS4.

Operation and Maintenance Program – The City of Midland will:

- ★ Assess City operations, including road and parking lot maintenance, bridge maintenance, cold weather operations and ROW maintenance.
 - ◆ Identify pollutants of concern from these operations.
 - ◆ Develop and implement a set of measures to reduce pollution from these operations.
 - ◆ Inspect any pollution control measures at City sites, and log inspections.
- ★ Maintain any structural BMPs owned by the City at a frequency chosen by the City.
- ★ For operation and maintenance of storm sewer systems, Midland must:
 - ◆ Develop and implement a program to reduce to the MEP the collection of pollutants in inlets and other surface drainage structures.
 - ◆ Develop a list of potential problem areas and prioritize them for more inspection.
- ★ Develop an O&M program for roads, public parking lot and public spaces, including street sweeping, or equivalent if feasible.
 - ◆ Need schedule for sweeping. Currently this is arterials swept annually and downtown more frequently, with lesser streets swept on request.
 - ◆ In areas without curbs, provide another measure.

Facility Good Housekeeping / Pollution Prevention Activities – The City of Midland will:

- ★ Inspect high priority facilities
 - ◆ Document inspection, deficiencies, and corrective actions.
 - ◆ Develop Standard Operating Procedures for each high priority facility. Keep on site and update as necessary.
 - Include in the SOP's good housekeeping such as sheltering potential pollutant from rain.
 - Fueling operations and vehicle maintenance areas must have SOPs for spill prevention and control.
 - ◆ Implement stormwater controls at all high priority facilities
 - De-icing and anti-icing material storage must prevent any stormwater runoff from these materials.
 - Equipment and vehicle washing procedures at City facilities must be addresses with SOPs. Washing outside without recapture will not be allowed under this permit.

- ★ Contractually obligate contractors working on both low and high priority City sites to comply with any pollution prevention and good housekeeping procedures also.
 - ◆ Develop procedures to provide oversight of contractors to verify compliance.

These chemical regulations also apply to the City

- ★ Pesticide, herbicide, and fertilizer rules for the City of Midland:
 - ◆ Evaluate materials used on public spaces.
 - ◆ Educate and get appropriate permits for applicators and distributors.
 - ◆ Use non-chemical pest management where feasible.
 - ◆ Develop schedules for chemical application to minimize discharge.
 - ◆ Ensure proper disposal of unused chemicals.

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
5	Listing and Mapping	Create list of facilities and stormwater controls the City owns - include TCEQ data if applicable, and show on MS4 map.	Engineering	New	Create list	Map facilities	Map Stormwater Controls	Update list and map	Update list and map
5	Listing and Mapping	Identify high priority facilities from this list	Engineering	New		Create Priority Facility list			
5	Good Housekeeping Training	Train employees in pollution prevention, and keep attendance log.	Engineering, all operations divisions	Revised	Acquire new Training Materials	Train 25% of divisions	Train 25% of divisions	Train 25% of divisions	Train 25% of divisions

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
5	Disposal	Waste materials disposed of per state law, and street sweepings will not reenter MS4	Engineering, Streets, Operations, W/WW, Traffic, Parks	New			Verify Disposal Procedures		
5	Operation and Maintenance Programs	Assess City Operations, including identifying pollutants of concern and implementing measures to reduce pollution	Engineering, Transportation	New		Assess and Implement for Bridge O&M	Assess and Implement for Road, Parking lot, and Plaza O&M	Assess and Implement for Cold Weather Operations	Assess and Implement for ROW Maintenance
5	Operation and Maintenance Programs	Develop list of structures likely to collect pollutants.	Engineering, Transportation	New	Develop list				

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
5	Operation and Maintenance Programs	Maintain structural BMPs and Storm Sewers	Transportation		Maintain per existing schedule	Maintain per existing schedule	Maintain per existing schedule	Maintain per existing schedule	Maintain per existing schedule
5	Operation and Maintenance Programs	Continue Street Sweeping Program	Transportation		Sweep per existing schedule	Sweep per existing schedule	Sweep per existing schedule	Sweep per existing schedule	Sweep per existing schedule
5	Facility Pollution Prevention	Inspect high priority facilities	Engineering	Revised		Inspect City industrial sites	Inspect 33% of remaining	Inspect 33% of remaining	Inspect 33% of remaining
5	Facility Pollution Prevention	Correct any deficiencies at high priority facilities	Engineering	New		Correct 25%	Correct 25%	Correct 25%	Correct 25%
5	Facility Pollution Prevention	Have SOPs for high priority facilities	Engineering, Traffic, Streets, W/WW, etc.	New		Update 25%	Update 25%	Update 25%	Update 25%
5	Facility Pollution Prevention	Install stormwater controls where needed	Engineering, Traffic, Streets, W/WW, etc.	New			Upgrade 33%	Upgrade 33%	Upgrade 33%

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
5	Contractor Responsibility	Add contract language to require contractors at City facilities to comply with site procedures for pollution prevention.	Legal, Purchasing, Engineering	New		Use language	Use language	Use language	Use language
5	Contractor Responsibility	Develop procedures for contractor oversight on city facilities, to verify compliance. Keep these on site.	Engineering, Purchasing	New			Document procedures	Document procedures	Document procedures
5	Chemical Handling	Evaluate pesticides, herbicides and fertilizers used on public spaces.	Engineering, Parks, Transportation	New			Evaluate		

MCM 5: Pollution Prevention and Good Housekeeping for Municipal Operations

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised ?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
5	Chemical Handling	Change to non-chemical solutions where feasible, if less-polluting one exists.	Engineering, Parks, Transportation	New				Use new solutions	Use new solutions
5	Chemical Handling	Develop schedules for chemical application to minimize wash-off from rain or irrigation.	Engineering, Parks, Transportation	New			Develop schedules		

MCM 6: Industrial Stormwater Sources

This MCM applies to level 4 cities such as Midland only. It is directed at city-owned landfills, treatment, storage, or disposal facilities for municipal waste, such as transfer stations and incinerators, hazardous waste treatment, storage, disposal and recovery facilities, and facilities subject to Emergency Planning and Community Right-to-Know Act Title III, Section 313. If other facilities are determined to contribute a substantial pollutant load, they will also be included.

The City of Midland owns and operates a number of facilities that are subject to TPDES stormwater regulations for industrial facilities. The list below includes the facility names of multi-sector general permits for the City of Midland:

Facility Name	TCEQ Customer Number	TCEQ Regulated Entity Number	Permit Number
Midland International Airport	CN602242612	RN101236750	TXR05N397
Midland Airpark	CN602242612	RN104149034	TXR05AK25
City of Midland Water Pollution Control Plant	CN600246813	RN104207279	TXR05Q540
City of Midland Solid Waste Landfill	CN600246813	RN104891601	TXR05Q539
City of Midland-Operations Complex	CN600246813	RN103990552	TXR05Q538

It is possible that the facilities covered by a separate permit would not be subject to this Minimum Control Measure. Additional research with TCEQ is needed to determine the scope of this MCM.

For facilities covered by MCM 6, the requirements are to:

- ★ Identify and control pollutants in stormwater discharges.
- ★ Set priorities and procedures for inspections.
- ★ Implementing control measures.

MCM 6: Industrial Stormwater Sources

Table of BMP's, Measurable Goals, and Implementation Schedule

MCM	BMP Name	Activity or Milestone	By	New or Revised ?	Measurable Goals				
					Year 1 2013-2014	Year 2 2014-2015	Year 3 2015-2016	Year 4 2016-2017	Year 5 2017-2018
6	City Industrial Facilities	Treat Industrial sites in accordance with permit requirements	Engineering, Traffic, Streets, W/WW, etc.	New		Inspect as first high priority facilities	Implement Control measures		

MCM 7: Authorization for Construction Activities where the Small MS4 is the Site Operator

This MCM is optional. The City of Midland has not selected this MCM in the previous permit, nor is it being selected for the 2013-2018 permit.