



*City of Odessa's
Storm Water
Management Program
(SWMP)*



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1.0 Public Education And Outreach On Storm Water Impacts (MCM-1)

1.1 INTRODUCTION

The City of Odessa will implement a public education and outreach program to distribute educational materials to the community about the impacts polluted storm water can have on water quality and the hazards associated with illegal discharges and improper waste disposal.

Public outreach program will be designed to educate all citizens in the community: residents, visitors, public service employees, business, commercial, industrial facilities, and construction site personnel. The program will help people identify ways that they can minimize their impact on storm water quality. This outreach program can be expanded by working with other MS4's in the area, such as TxDOT and Ector County.

The City of Odessa plans to enlist Neighborhood Development Services Department (NDS) and the help of community organizations, such as Keep Odessa Beautiful (KOB), and develop the public education activities through these organization's programs.

Through these groups, the City of Odessa will distribute pertinent literature to students, and educate citizens about recycling, composting, and the use of the Household Hazardous Waste Facility. The City of Odessa will form partnerships with governmental and civic groups in using and developing educational programs and create PSA's, radio spots, and other devices to attempt to reach all residents within the city of Odessa.

With NDS and KOB, the City of Odessa will conduct two (2) annual clean-up events and advertise these through Public Service Announcements (PSA's), radio, and television, focusing on how the collection of litter can improve storm water quality.

The City of Odessa will establish a Storm Water "Hotline" for citizens to phone City Hall to get information, and use the City of Odessa web-site to provide information.

1.2 COMPLIANCE ACTION PLAN

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 1.1</u> <u>Education Programs</u> <u>with City and</u> <u>Community</u> <u>Organizations</u>	Develop a Storm Water program relationship with KOB, NDS and the City of Odessa Utilities Department.	Year 1 Continue Years 2-5	Document education and public activities of KOB related to storm water.
	Develop and begin student education in storm water matters.	Year 2 Continue Years 3-5	Document number of students contacted.
<u>BMP 1.2</u> <u>Annual Clean-Up</u> <u>Events</u>	With NDS and KOB, conduct two (2) annual clean-up events with public education link to storm water improvement.	Years 1-5	Document the number of participants in KOB and NDS clean-up events and amount of material collected.
<u>BMP 1.3</u> <u>Hotline & City Web-site</u> <u>Link</u>	Establish and maintain a Storm Water "Hotline" and City Web-site link.	Year 2	Document Storm Water "Hotline" and Web-site link establishment.

These best management practices, to educate the public and conduct outreach activities, are being built upon a strong framework of an existing successful Keep Odessa Beautiful program. This program relates to all aspects of environmental activities, including citywide clean-ups, recycling and beautification efforts. In addition, focusing on the youth groups will develop environmentally conscious citizens, and thus enforce and amplify the positive results obtained by this program in the future.

2.0 Public Involvement/Participation (MCM-2)

2.1 INTRODUCTION

The City of Odessa will endeavor to create a public involvement program, so that all citizens, governmental entities, civic and industrial organizations within the city of Odessa can participate in the development of the storm water management program activities, as well as become partners in improving the storm water discharge quality in the city of Odessa.

The City of Odessa will establish a committee of interested citizens to provide guidance and opportunity for citizens' input into storm water management policies and practices.

The City of Odessa will develop a storm drain marking/stenciling program involving civic groups, such as youth groups, the Boy Scouts, Girl Scouts, and the Keep Odessa Beautiful program and other interested groups. The City of Odessa will provide storm drain markers and maps and education to mark all storm water inlets in the City.

Notice of Public Meetings regarding Storm Water Permit Actions will be published in local English and Spanish language newspapers, and press releases will be used to notify all residents.

2.2 COMPLIANCE ACTION PLAN

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 2.1 Citizens' Stakeholders Committee</u>	The City of Odessa will establish a committee of interested citizens to provide guidance and opportunity for citizens' input into storm water management policies and practices.	Year 1-2	Document Citizens Committee meetings, both number of meetings and participants.
<u>BMP 2.2 Conduct Public Meetings for Storm Water Permit Action</u>	Notice of Public Meetings regarding Storm Water Permit Actions will be published in local newspapers and press releases will be used to notify all residents.	Year 1-2	Document notices and press releases for meetings.
<u>BMP 2.3 Storm Drain Marking Program</u>	The City of Odessa will develop a storm drain marking/stenciling program involving civic groups, such as youth groups, the Boy Scouts, Girl Scouts, and the Keep Odessa Beautiful program or other interested groups. The City of Odessa will provide storm drain markers and maps and education to mark all storm water inlets in the City.	Year 2	Document number of participants, groups involved and inlets marked.
	Complete storm drain marking program.	Years 3-5	Document program completion

Effective public involvement/participation requires cooperation with citizens and stakeholders of all kinds, coupled with enough education in storm water matters so interest will grow among these groups to create an alliance to improve storm water quality programs.

3.0 Illicit Discharge Detection and Elimination (MCM-3)

3.1 INTRODUCTION

It is a requirement of TCEQ, TPDES General Permit TXR040000, that all MS4's develop a section within the SWMP that establishes a program to detect and eliminate illicit discharges, illegal dumping and non-storm water discharges to the MS4. The SWMP must include the manner, ordinance or other regulatory mechanism used to effectively prohibit illicit discharges, illegal dumping and non-storm water discharges. The SWMP must list the techniques used for detecting illicit discharges, illegal dumping and non-storm water discharges and must include appropriate enforcement procedures.

A map of the storm sewer system must be developed and must include the following:

- ✓ the location of storm sewer pipes, ditches and other conveyances owned by the MS4, or at a minimum, the drainage area for each outfall;
- ✓ the location of all outfalls;
- ✓ the names and locations of all waters of the U.S. that receive discharges from the outfalls;
- ✓ the source of information used to develop the storm sewer map; and
- ✓ how the map will be regularly updated.

The following list of non-storm water discharges are not reasonably expected to be significant sources of pollutants:

1. A discharge authorized by, and in full compliance with, a NPDES/TPDES permit.
2. A discharge or flow resulting from fire fighting by the Fire Department.
3. A discharge or flow from water line flushing or fire hydrant testing, but not including a discharge from water line disinfection by superchlorination or other means unless it contains no harmful quantity of chlorine and discharges are not expected to adversely affect aquatic life.
4. A discharge or flow from lawn watering, landscape irrigation, or other water utilizing potable water, groundwater or surface water sources.
5. A discharge or flow from a diverted stream flow or natural spring.
6. A discharge or flow from uncontaminated pumped groundwater or rising groundwater.
7. Uncontaminated groundwater infiltration to the MS4.
8. Uncontaminated discharge or flow from a foundation drain, crawl space pump, footing drain, sump pump.
9. A discharge or flow from a potable water source not containing any harmful substance or material from the cleaning or draining of a storage tank or other container.
10. A discharge or flow from air conditioning condensation that is unmixed with water from any other source of pollutant.
11. A discharge or flow from an individual residential car washing.
12. A discharge or flow from a riparian habitat or playa lake.
13. A discharge or flow from water used in pavement washing, vehicle or external building washing that is not contaminated with any harmful cleaning substance and where spills or leaks of toxic or hazardous materials have not occurred, unless all spill material is removed.
14. Storm water runoff from a roof that is not contaminated by discharge from an emissions scrubber or filter or any other source of pollutant.

15. Swimming pool water that contains no harmful quantity of chlorine, muriatic acid, or other chemical used in the treatment or disinfection of swimming pool water or in pool cleaning.
16. Water used to control dust.

3.2 COMPLIANCE ACTION PLAN

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 3.1</u> <u>Sanitary Sewer</u> <u>Maintenance Program</u>	Require grease and sand traps on businesses that may discharge grease and oils into the sanitary sewer system to prevent overflows.	Years 1-5	Ordinance is current. Document number of inspections performed.
	TV inspection and cleaning of sanitary sewer system.	Years 1-5	Record miles of TV inspection and cleaning performed.
	Repair of damaged or broken sanitary sewer lines to mitigate sewage spills.	Years 1-5	Document number of repairs performed.
<u>BMP 3.2</u> <u>Non-Storm Water</u> <u>Illicit Discharge</u> <u>Inspections</u>	Conduct inspections to prevent littering and illegal dumping.	Years 1-5	Document number of inspections, notice of violations and citations issued.
	With NDS and KOB, conduct two (2) annual clean-up events with public education link to storm water improvement.	Years 1-5	Document the number of participants in KOB clean-up events and amount of material collected. (See BMP 1.2)
	The City will operate a Household Hazardous Waste Collection facility to provide opportunities for collection and recycling materials from residents.	Years 1-5	Advertise and conduct a household hazardous waste collection and recycling event. (See BMP 6.2)
	Form partnerships with local MS4 operators.	Year 1	Permanent collection center to be open and operated. Document materials collected. Establish responsibilities and lines of communications for detecting and eliminating illicit discharges.

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 3.3 Illicit Discharge Inspections</u>	Conduct inspections to determine source and nature of suspicious discharges and connections.	Year 2	Review current ordinance and revise as necessary. Develop procedures, train personnel and educate public.
	Insure compliance with ordinance.	Year 2-5	Implement program.
<u>BMP 3.4 Dry Weather Screening Program</u>	Conduct visual dry weather screening of all storm water system outfalls.	Year 1	Develop dry weather screening procedures and train staff.
		Years 2-5	Conduct visual dry weather screening of all storm water system outfalls on an annual basis.
<u>BMP 3.5 Storm Water System Smoke Testing</u>	Establish a storm water smoke testing program	Year 1	Define procedures and identify materials and equipment needed for program.
		Year 2	Purchase smoke testing program equipment and materials.
		Years 3-5	Conduct testing and document results.
<u>BMP 3.6 Storm Sewer System Mapping</u>	Create a digital map of City's storm sewer system and drainage facilities	Year 1	Complete construction of digital map. *
		Years 2-5	Update map as needed. **

* Data will be gathered and verified by City of Odessa field personnel.

** Expansions and other modifications to the Storm Water System will be made from engineered plans. The digital map will be updated based on field verified "as built" plans.

4.0 Construction Site Storm Water Runoff Control (MCM-4)

4.1 INTRODUCTION

It is required that all MS4 operators develop, implement and enforce a program to reduce pollutants in storm water runoff from construction activities that disturb more than one acre of land surface area or is part of a larger plan to disturb more than one acre of land. The program must include the development and implementation of an ordinance or other regulatory mechanism to require erosion and sediment controls and construction waste controls, as well as sanctions to ensure compliance and enforcement provisions.

All MS4 operators must also develop procedures for reviewing construction plans for compliance, site inspections, and enforcement, and provide for public input.

4.2 PROCEDURES DEVELOPMENT

Standard construction methods will be evaluated and established for sedimentation and erosion control BMP's and to control waste such as discarded building materials, concrete truck washout water, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality. These procedures will notify the dischargers of responsibilities under the Construction General Permit (CGP). The public will have the option of utilizing these standards or procuring a storm water management plan from a licensed engineer. Engineered designs will be required to meet established runoff criteria for quantity and quality. City inspectors and/or the engineer of record will inspect the construction site for compliance. A procedure for citizen input, regarding compliance, will also be established within the first year of the program.

4.3 REGULATORY MECHANISMS

The City of Odessa does not currently have ordinances in place to regulate the use of sedimentation and erosion controls, site inspection or compliance enforcement. An ordinance to address these issues will be formulated in cooperation with the Citizens' Stakeholders Committee and City Council no later than the second program year.

4.4 COMPLIANCE ACTION PLAN

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 4.1 Procedures Development</u>	Develop procedures for site plan review, public input, permitting, site inspection and enforcement.	Year 1-2	Prepare various procedures for review and approval by Citizens' Stakeholders Committee.
<u>BMP 4.2 Regulatory Mechanisms</u>	On the basis of the approved procedures, develop a city ordinance to address requirements for erosion and sedimentation and construction waste controls and provide for appropriate enforcement.	Years 1-2	Install a Storm Water Runoff ordinance approved by the City Council and Citizens' Stakeholders Committee.
	Implementation of Storm Water Runoff ordinance.	Years 2-5	Document all notice of violations issued annually.

5.0 Post-Construction Storm Water Management in New Development and Redevelopment (MCM-5)

5.1 INTRODUCTION

MS4 operators are required to develop, implement and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one (1) acre or part of a larger plan that would disturb one or more acres, that discharge into the MS4. The program must ensure that controls are in place to prevent or minimize water quality impacts. The controls may be structural and non-structural in nature. A regulatory mechanism must be adopted to address post-construction runoff. MS4's must also provide for the long-term maintenance of all post-construction runoff controls.

5.2 STRUCTURAL CONTROLS

The City of Odessa's storm water collection system is composed of streets, playa lakes, detention basins, channels, and a small amount of underground pipelines and inlets. Because of the flat topography and arid conditions of west Texas, a traditional citywide network of underground storm water pipes was never constructed. Surface drainage features are the most prevalent form of structural drainage controls. The City has an existing maintenance program for these facilities that will continue and will be enhanced as needed to maintain storm water quality. New development and redevelopment activities are evaluated on a case-by-case basis to determine whether new structural controls are necessary, or if existing facilities need to be modified, upgraded or expanded. The City's ordinances will be reviewed and amended as necessary to provide for post-construction runoff quality.

5.3 NON-STRUCTURAL CONTROLS

Current City ordinances prohibit the discharge or disposal of any pollutant, sewage, wastewater, or any liquids or solid waste containing cement, concrete, building materials, oil, or chemicals. The Citizens' Stakeholders Committee will evaluate the need for mandatory non-structural controls during the first program year. Non-structural controls, such as buffer zones, open space designs, alternative pavers or pavements, will be encouraged by the City on all large-scale developments.

5.4 COMPLIANCE ACTION PLAN

Best Management Practice	BMP Description	Schedule	Measurable Goals
<u>BMP 5.1 Structural Controls</u>	Establish criteria for post-construction structural controls.	Year 2-3	Obtain approval of Citizens' Stakeholders Committee.
	Review and revise development ordinances for storm water runoff controls criteria.	Years 2-3	Obtain City Council approval of revised ordinances.
	Implementation of ordinances for storm water runoff controls	Years 2-5	Document and permit all storm water controls and insure maintenance
<u>BMP5.2 Non-Structural Controls</u>	Review current ordinances and develop criteria and amend as necessary.	Years 2-3	Obtain approval of Citizens' Stakeholder Committee and obtain City Council approval, as necessary.
	Implementation of any amended ordinances for non-structural controls	Years 2-5	Document and permit all non-structural controls during development and insure maintenance.

6.0 Pollution Prevention/Good Housekeeping for Municipal Operations (MCM-6)

6.1 INTRODUCTION

The City of Odessa will develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutants in storm water runoff from municipal operations. Using training materials that are available from EPA, State, or other organizations and sources, the program will include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, storm water system and street maintenance, parking lots, and vehicle and equipment maintenance and storage yards.

The City of Odessa operates the Bob Derrington Water Reclamation Plant that operates under TPDES General Permit No. TXRO50000.

Procedures for disposal of wastes from City of Odessa municipal activities will be part of the training and activities under this MCM. Depending upon the particular waste in question, employees are either instructed as to the procedures necessary for approved disposal in a municipal solid waste facility, the location of hazardous waste collection center, or given contact information for those businesses known at the time to receive such waste. A procedure for such inquiries will be made available in each employee group involved in the above municipal activities.

6.2 COMPLIANCE ACTION PLAN

Best Management Practices	BMP Description	Schedule	Measurable Goals
<u>BMP 6.1 Employee Training</u>	The City of Odessa will establish a training program for all employees responsible for municipal operations. ⁽²⁾ The program will instruct employees in methods of preventing and reducing storm water pollution.	Year 1	Develop a housekeeping/pollution prevention employee training program. ⁽¹⁾
		Years 2-5	Train all new employees within 6 months of employee's start date.

Notes:

(1) Training material will include, but not limited to, "Storm Watch Municipal SWPP Training" by EXCAL Visual, including written and video presentation with employee quizzes and acknowledgement forms.

(2) Municipal operations include activities listed in 6.1.

Best Management Practices	BMP Description	Schedule	Measurable Goals
<u>BMP 6.2</u> <u>Household Hazardous Waste Collection & Recycling</u>	The City will operate a Household Hazardous Waste Collection facility to provide opportunities for collection and recycling materials from residents.	Years 1-5	Advertise and conduct a household hazardous waste collection and recycling event.
		Years 1-5	Permanent collection center to be open and operated. Document materials collected.
<u>BMP 6.3</u> <u>Pesticide, Herbicide, and Fertilizer Application</u>	Applicators of herbicides and pesticides will be regulated and licensed by the State Department of Agriculture and the Structural Pest Control Board.	Years 1-5	Quantities of pesticide, herbicide and fertilizers applied at City-owned facilities will be tracked.
<u>BMP 6.4</u> <u>Street Sweeping</u>	Maintain a Street Sweeping program.	Years 1-5	The central business district will be swept 12 times per year; thoroughfares will be swept 6 times per year; and residential streets will be swept 6 times per year.
		Years 1-5	The amount of material collected will be documented on an annual basis.
		Years 1-5	The number of curb miles swept will be documented on an annual basis.
<u>BMP 6.5</u> <u>Develop Storm Water Management Plan for Vehicle Service and Storage yards</u>	Review existing vehicle service and storage center operations and infrastructure. Develop and implement any needed structural or non-structural controls.	Year 1-2	Conduct assessment of existing fleet service and storage centers operations and infrastructure. Develop a storm water management plan that includes needed structural and non-structural control components.
		Years 2-5	Implement the storm water management plan.

Best Management Practices	BMP Description	Schedule	Measurable Goals
BMP 6.6 Storm Drainage <u>System Maintenance</u>	Remove floatables, debris, sediment, etc., from inlets, channels and pipes as needed to maintain capacity and to reduce storm water pollution.	Year 1	Develop a schedule for conducting visual inspection of storm sewer inlets.
		Year 1	Develop a system to monitor and track storm drainage system maintenance activities.
		Year 1	Clean system and inlets as needed and start inspection program.
		Years 2-5	Clean system and inlets as needed in response to complaints and reported problems from inspection program.