

5.0 MCM3: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

5.1 OVERVIEW

Construction site stormwater runoff control measures are designed to prevent soil and construction debris from entering the MS4 system from construction sites. During construction activities, vegetation and topsoil are stripped away, making the area especially vulnerable to erosion, and the activities performed on construction sites usually disturb a large amount of land and generate large amounts of waste. This process has generally been found to lead to high levels of sediment, phosphorus, nitrogen, pesticides, petroleum derivatives, construction chemicals, and solid wastes in receiving streams nationwide.

5.2 FEDERAL REGULATORY REQUIREMENTS

40 CFR 122.34 (b)(4) states that the MS4 operator must develop, implement and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to 1 acre. Reduction of stormwater discharges from construction activity disturbing less than 1 acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb 1 acre or more. If the NPDES permitting authority waives requirements for stormwater discharges associated with small construction activity in accordance with 40 CFR Sec. 122.26(b)(15)(I), you are not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites.

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

- An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal, or local law;
- Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
- Procedures for site plan review that incorporate consideration of potential water quality impacts;
- Procedures for receipt and consideration of information submitted by the public; and
- Procedures for site inspection and enforcement of control measures.

5.3 TPDES PHASE II PERMIT REQUIREMENTS

5.3.1 Construction Site Stormwater Runoff Control

The MS4 operator, to the extent allowable under State and local law, must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre or if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more of land. The program must include the development and implementation of an ordinance or other regulatory mechanism as well as sanctions to ensure compliance to the extent allowable under state, federal, and local law, to require erosion and sediment control.

As a previous permit holder, the City will assess their previous program elements, modify as necessary, and develop and implement new elements, to continue reducing the discharge of pollutants from the MS4 to the maximum extent practicable (MEP).

- (a) Requirements for construction site contractors to, at a minimum:
 - (1) implement appropriate erosion and sediment control BMPs;
 - (2) stabilize soils of disturbed areas immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site;
 - (3) design, install, implement and maintain effective BMPs to minimize the discharge of pollutants to the small MS4;
 - (4) 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.

- (b) The MS4 operator must develop procedures for:
 - (1) site plan review which incorporate consideration of potential water quality impacts;
 - (2) procedures for conducting large and small site inspections and enforcement of control measures to the extent allowable under state and local law;
 - (3) receipt and consideration of information submitted by the public.

- (c) All permittees shall implement a method for informing or training all the permittee's field staff that may perform construction site inspections or respond to stormwater construction related water quality complaints.

5.3.2 Additional Requirements for Level 4 small MS4s

- (a) Construction Site Inventory. Permittees who operate Level 4 small MS4s shall maintain an inventory of all permitted active public and private construction sites, that result in a total land disturbance of one or more acres or that result in a total land disturbance of less than one acre if part of a larger common plan or development or sale.

5.4 DISCUSSION OF STORMWATER PROGRAMS

The City of Sugar Land currently utilizes a variety of construction site stormwater runoff control measures to monitor and reduce pollutants from construction sites throughout the community.

5.4.1 Construction Site Runoff Control and Construction Site Waste Control Ordinances

The City of Sugar Land developed and adopted a stormwater ordinance that requires construction site operators to utilize erosion and sediment control devices during construction-related activities, as well as sanctions to ensure compliance and proper control and disposal of on-site waste materials. The ordinance will also ensure the control of pollutants from equipment and vehicle washing and other wash waters, spills and leaks, and procedures for initiating and completing soil stabilization measures. The City will review and revise, if necessary, the current ordinance to contain methods of enforcing violations, mirror the requirements of the TCEQ Construction General Permit TXR150000 and mandate that construction site operators install, maintain, and properly dispose of erosion and sediment controls.

Measurable Goals:

- Evaluate the existing City stormwater ordinance for potential updates and adopt any necessary modifications by December 2020.

Evaluation:

- Adoption of modified stormwater ordinance.

5.4.2 Site Plan Review Program

Existing procedures require site plan review and approval by the Development Review Committee (DRC) prior to the initiation of construction activities within the City of Sugar Land. City staff will evaluate the current site plan review process and modify procedures for a site plan review program that incorporates the consideration of potential water quality effects from construction activities. The program will include the review of Stormwater Pollution Prevention Plans (SWPPP) and TCEQ permit documentation in order to ensure permit compliance. During the review process, staff will also consider the nature of construction, the topography of the site, soil characteristics of the site, and the condition of the receiving stream. Forms, checklists, and a standard format for the submission of plans will also be developed or revised. DRC processes will also be evaluated and modified to implement procedures for the receipt and consideration on information from the public.

Measurable Goals:

- Evaluate the DRC process and modify policies and procedures to include pollution prevention assessments and receipt of information from the public by December 2020.
- Develop a pollution prevention checklist for site plan review by December 2020.

- Review 100% of submitted plans associated with a Land Disturbance permit application by December of each year (2019-2020).

Evaluation:

- Record modifications to program procedures and document date of procedure review and update.
- Document the checklist and date of creation.
- Record the number of plans reviewed each year and compare to the number of plans submitted.

5.4.3 Construction Site Inspection Program

During the previous permitting term, the City of Sugar Land developed a program with procedures for construction site inspections and enforcement with the goals of reducing stormwater runoff pollutants to the MS4. Responsibility for program implementation will be evaluated and assigned, and the appropriate personnel will continue to be trained to perform the tasks specified in the program. All construction site inspections will be performed in accordance with the developed procedures, and enforcement proceedings will be administered in accordance with the adopted construction site runoff control ordinance and construction waste control ordinance. The City will review these procedures and update if necessary.

Measurable Goals:

- Review the construction site inspection procedures and inspection forms and update as necessary by December 2020.
- Conduct site inspections of 50% of active construction sites with an approved Land Disturbance permit by December of each year (2019-2024).
- Conduct a follow-up inspection for 100% of Notice of Violations (NOVs) issued and perform enforcement proceedings in accordance with the adopted stormwater ordinance from January to December of each year (2019-2024).
- Review the procedures for receipt and consideration of information submitted by the public and update as necessary by December 2020.

Evaluation:

- Record modifications to program procedures and forms and document date of procedure review and update.
- Report the number of construction site inspections performed and compare against the number of approved Land Disturbance permits.
- Record the number of NOVs issued and follow-up inspections conducted; record the number of enforcement proceedings.
- Record modifications to procedures and document date of procedure review and update.

5.4.4 Pre-Construction Meetings

The City will conduct meetings with contractors prior to the start of construction. A review of the contractor's Stormwater Pollution Prevention Plan (SWPPP), City regulations and requirements, and Land Disturbance permit requirements are reviewed.

Measurable Goals:

- Meet with 50% of all contractors that have approved Land Disturbance permits by December of each year (2019-2024).

Evaluation:

- Compare the number of pre-construction meetings conducted against the number of approved land disturbance permits.

5.4.5 Construction Site Inventory

The City of Sugar Land maintains an inventory of all active public and private construction sites disturbing one acre or more, or less than one acre but part of a larger development.

Measurable Goals:

- Update the inventory to reflect all active public and private construction sites disturbing one acre or more, or less than one acre but part of a larger development by December of each year (2019-2024).
- Record 100% of Land Disturbance permits approved by December of each year (2019-2024).

Evaluation:

- Record updates to the inventory information.
- Report the number of approved Land Disturbance permits annually.

5.4.6 MS4 Staff Training

Sugar Land will continue to implement a training program to City staff that have the potential to perform construction site inspections.

Measurable Goals:

- Provide one training class to City staff associated with construction related activities by December of each year (2019-2024).

Evaluation:

- Document the topic of the course provided, the names of staff participating, and the training materials utilized.