For proposed Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000 for discharges from small municipal separate storm sewer systems (MS4s) into surface water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, TX 78711-3087
Prepared by:	Stormwater Team (MC-148) Wastewater Permitting Section Water Quality Division, Office of Water (512) 239-4671
Date:	October 1, 2018
Permit Action:	Amendment and Reissuance of a General Stormwater Permit for Phase II (Small) Municipal Separate Storm Sewer Systems (MS4s)

I.	Summary
II.	Executive Director's Recommendation5
III.	Permit Applicability and Coverage5
A.	NPDES Small MS4 General Permit Remand Rule6
B.	Regulated Small MS4s Subject to Permitting7
C.	Designated Small MS4s Subject to Permitting7
D.	Permit Waivers
E.	Ineligible Discharges9
F.	Allowable Non-stormwater Discharges10
G.	Discharges from Small MS4 Construction Activities11
IV.	Permit Conditions and Effluent Limitations12
A.	Notice of Intent
B.	Public Notice and Public Participation12
C.	Stormwater Management Program (SWMP)13
D.	Reporting Requirements
V.	Changes From Existing General Permit:22
VI.	Addresses24
VII.	Legal Basis25
VIII.	Regulatory Background25
IX.	Permit Coverage
X.	Technology-Based Requirements28
XI.	Water Quality-Based Requirements29
XII.	Monitoring29
XIII.	Procedures for Final Decision
XIV.	Administrative Record

#### I. Summary

The Texas Commission on Environmental Quality (TCEQ) is proposing to amend and renew the TPDES general permit for Phase II (small) municipal separate storm sewer systems (MS4s), TXR040000. This general permit was first issued and effective on August 13, 2007, and authorizes discharges from small MS4s into surface water in the state. The general permit specifies which small MS4s must obtain permit coverage, which are eligible for waivers, and which must obtain individual permit coverage. The permit also specifies that where discharges will reach waters of the U.S., a stormwater management program (SWMP) must be developed and implemented, and includes the minimum requirements for the SWMP.

The principal changes to the existing general permit include the following:

1. Phase II MS4 Remand Rule

The permit language was updated to comply with the federal Phase II MS4 Remand Rule that became effective on January 9, 2017, and requires permit language that is "clear," "specific," and "measurable"

The permit adds a public notice process for major modifications to SWMPs. (Permit Part II.E.6 and Fact Sheet Part IX 6).

TCEQ selected the two-step general permit option (procedural approach) under the NPDES rule. This is the approach TCEQ currently uses. *See* Part III.A. below for explanation.

2. Electronic Reporting Rule

The permit language was updated to comply with the federal e-Reporting Rule that became effective on December 21, 2015. The permit requires that small MS4s submit applications and annual reports electronically by December 21, 2020.

- 3. Application for Coverage
  - a. The permit continues the requirement that operators of small MS4s that are fully or partly located within an urbanized area (UA), as determined by the 2000 or the 2010 Decennial Censuses, must obtain authorization for the discharge of stormwater runoff, and are eligible for coverage under the general permit unless otherwise specified. (Permit Part II.A.1 and Part II.E.1.(a))
  - b. The requirement that newly regulated MS4s apply was removed, since the small MS4 universe has not grown during the 2013 2018 permit term and there are no newly regulated MS4s. (Permit Part II.E.1)
  - c. The permit clarifies that operators of small MS4s that were previously authorized under the general permit must reapply for coverage under the reissued general permit. (Permit Part II.E.1(a))
  - d. The permit continues categorizing small MS4s into four levels with different permit requirements applied to each level for some of the program elements. The permit clarifies that the level of a small MS4 is based on the population served by the small MS4 within the 2010 UA and based on the 2010 U.S. Census. A new Decennial Census during a permit term, will not affect the level of an MS4 until the permit is renewed. Non-traditional MS4s such as

transportation entities, will continue to be categorized as level 2 MS4s. (Permit Part II.A.5) The levels continue to be:

- (1) Level 1 serves a population of less than 10,000 within a UA;
- (2) Level 2 serves a population of at least 10,000 but less than 40,000 within a UA. This category also includes all non-traditional small MS4s such as counties, drainage districts, transportation entities, military bases, universities, colleges, correctional institutions, municipal utility districts, and other special districts (regardless of population served in the UA);
- (3) Level 3 serves a population of at least 40,000 but less than 100,000 within a UA; and
- (4) Level 4 serves a population of 100,000 or more within a UA.
- 4. Impaired Water Bodies and Total Maximum Daily Load (TMDL)
  - a. Clarified in Part I and Part II that impaired waters include waters with an EPA approved TMDL that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies as not meeting applicable state water quality standards. (Permit Parts I and II.D.4)
  - b. Added a requirement that MS4s annually check, in conjunction with preparation of the annual report, if a waterbody has been added to the latest EPA approved *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies. Newly listed waters must be addressed in the SWMP within two years following the approval date of the new list(s). The permit allows the MS4 to implement BMPs to address the pollutant of concern without submitting a notice of change (NOC). (Permit Part II.D.4)
- 5. Obtaining Authorization
  - a. Added a requirement that MS4s annually review its SWMP in conjunction with preparations of its annual report. (Permit Part II.E.4)
  - b. Clarified that annexation of lands or otherwise acquiring land and deannexation of land or otherwise subtracting areas, requires SWMP changes but does not require submittal of an NOC. (Permit Part II.E.6)
  - c. Added that the MS4 is responsible for implementing the program in new areas acquired by the MS4 as expeditiously as possible but no later than three years from the addition of the new area. (Permit Part II.7)
- 6. Stormwater Management Program (SWMP)
  - a. Minimum Control Measures (MCMs) The current permit continues the six (6) required MCMs in the SWMP. The permit revises the existing MCMs to comply with the federal Phase II MS4 Remand Rule to make the language "clear", "specific", and "measurable" and include additional controls and details where appropriate. The list of MCMs continues to include (1) Public Education, Outreach, and Involvement; (2) Illicit Discharge Detection and Elimination; (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; and (6) Industrial Stormwater Sources.

Portions of these MCMs are required only for certain levels of small MS4s; for example, MCM (6), related to Industrial Stormwater Sources, is required only for Level 4 permittees, as they are similar in populations to Phase I MS4s, which this MCM is based on. The permit maintains the optional 7th MCM, related to construction activities where the small MS4 is the site operator. (Permit Part III.B)

- b. Added a requirement to MCM 2 that requires Level 4 MS4s to develop and implement a program for collecting floatables in the MS4, similar to requirements in Phase I MS4 permits. (Permit Part III.B.2)
- c. Added a requirement to MCM 5 that requires Level 4 MS4s to evaluate flood control projects for their ability to remove pollutants from stormwater, similar to requirements in Phase I MS4 permits. (Permit Part III.B.5)
- 7. MS4-Operated Construction Sites (Optional 7th MCM)
  - a. Stormwater Runoff from Concrete Batch Plants

Adjusted the benchmark value for total suspended solids for discharges from concrete batch plants under MCM 7 from 100 milligrams per liter (mg /L) to 50 mg/L to be consistent with the Sector E in the TPDES Multi Sector General Permit (MSGP) TXR050000, issued on August 14, 2016, and the TPDES Construction General Permit (CGP) TXR150000, issued on March 5, 2018. (Permit Part VI.E)

b. Effluent Limits

Added effluent limits for regulated construction sites based on the federal Effluent Limitation Guidelines (ELGs) at 40 CFR Part 450.21 that consist of a series of BMPs. (Permit Part VI.J.7)

### II. Executive Director's Recommendation

The executive director has made a preliminary decision that this general permit, if reissued, meets all statutory and regulatory requirements. It is proposed that the general permit be issued to expire five years from date of issuance following the requirements of Title 30 Texas Administrative Code (TAC) § 205.5(a).

## III. Permit Applicability and Coverage

There are two ways that a small MS4 would be required to obtain permit coverage. First, the federal National Pollutant Discharge Elimination System (NPDES) Phase II stormwater rules at 40 CFR § 122.32(a)(1) require authorization for the discharge of stormwater from small MS4s located fully or partially within a UA as defined by the U.S. Bureau of the Census (Census). These small MS4s are often referred to as *regulated* small MS4s. In addition, TCEQ can *designate* a small MS4 as requiring coverage (see federal Phase II rules at 40 CFR §§ 122.32(a)(2) and 123.35(b)). There are two groups that fall into this category. First, the rules require that TCEQ develop and apply designation criteria to small MS4s located outside of a UA that serve a jurisdiction with 10,000 or more people, and that have an average density of 1,000 or more people/square mile (*See* 40 CFR § 123.35(a)(2)). This assessment was required

by December 9, 2002, and the TCEQ after assessing those small MS4s that met this criteria did not designate any additional small MS4s requiring permit coverage. Secondly, the rules require TCEQ to designate any small MS4 as a regulated small MS4 where the small MS4 substantially contributes pollutants to a physically interconnected regulated MS4. Small MS4s meeting either of these criteria would be referred to as *designated* small MS4s. The rules also allow the TCEQ to designate additional small MS4s at any time. The portion of the small MS4 required to meet the conditions of the proposed general permit is that portion located within a UA, as well as any portion that is individually designated by the TCEQ. Maps detailing UAs is available at: <a href="http://www.census.gov/geo/www/ua/2010urbanruralclass.html">http://www.census.gov/geo/www/ua/2010urbanruralclass.html</a>

The UA maps were updated by the U.S. Census Bureau during 2012 based on the results of the 2010 U.S. Census. Newly identified UAs on the updated maps are also regulated under the general permit.

In the preamble to the Phase II rules (See *Federal Register* (FR) 64, Number 235, page 68749), the EPA discusses instances where a municipal separate storm sewer may not be considered a system. The TCEQ agrees that certain complexes may have storm drainage structures that operate independently of each other (such as roof top drains flowing to the city street) rather than operating as a system. The TCEQ does not consider most elementary and secondary schools to operate a system, because each school building would normally drain to a city's MS4 rather than to a system of drains operated by a school district.

Similarly, a public office building complex may include roof and parking lot drains that flow to another entity's system. Universities, federal facilities, and many other public complexes do have a constructed drainage system, which would be defined as a small MS4, even if the drains eventually reach another MS4. In this general permit, the definition for small MS4 excludes storm drains associated with municipal (publicly owned) office and education complexes, where the complexes serve a nonresidential population, and where the buildings are not part of a larger MS4.

### A. NPDES Small MS4 General Permit Remand Rule

On December 9, 2016, EPA issued the Small MS4 General Permit Remand Rule, with an effective date of January 9, 2017, to respond to a remand from the United States Court of Appeals for the Ninth Circuit in Environmental Defense Center, et al. v. EPA, 344 F. 3d 832 (9<sup>th</sup> Cir. 2003). Under the rule, EPA revised the small MS4 regulations to ensure that states review BMPs to be used by MS4s to ensure that the small MS4s reduces the pollutant in the discharge from their systems to the maximum extent practicable (MEP) and that states provide public notice and the opportunity to request a hearing.

The rule establishes two alternative approaches that states can use to issue small MS4 general permits. The first option is to issue a general permit that includes all permit terms and conditions to require the MS4 operator to reduce the discharge of pollutants from its MS4 to the MEP to protect water quality and to satisfy the appropriate water quality requirements of the CWA in one comprehensive general permit.

The second option allows states to establish the necessary terms and conditions in two steps. The first step is to issue a base general permit that contains terms and conditions for all MS4s. The second step requires that MS4s develop individual terms and conditions in their SWMPs that states will review. Public notice, comment period, and opportunity to request a public hearing is available for both steps in the second option.

The rule also requires that permit terms and conditions are written in a language that is "clear," "specific," and "measurable" to avoid uncertainties as to what specific actions the MS4 is expected to take, and therefore make it easier to comply with and assess compliance. The preamble (*Fed. Reg.* Vol. 81. No. 237, December 9, 2016. p. 89335) explains that permit requirements that include "caveat" language such as: "if feasible," "if practicable," "to the maximum extent practicable," "as necessary," or "as appropriate" unless defined would generally not qualify as "clear," "specific," and "measurable."

SWMPs under the two-step option need to meet requirements in the Remand Rule, since detailed permit terms and conditions are outlined in the SWMP document, thus making the approved SWMP document enforceable.

TCEQ established terms and conditions under state rule 30 TAC Chapter 213 (Edwards Aquifer Rule) which is outside the NPDES program, are not consider part of the Remand Rule, therefore, permit language related to the Edwards Aquifer Rule remains unchanged.

TCEQ has chosen the two-step option (procedural approach) since the state has managed its small MS4 program in that manner since the issuance of the first TPDES Small MS4 General Permit in 2007.

# **B. Regulated Small MS4s Subject to Permitting**

The proposed general permit would continue to authorize the discharge of stormwater runoff and certain non-stormwater discharges from the following small MS4s:

- 1. Small MS4s located wholly or partially within a UA as defined by the U.S. Census Bureau in the 2000 or 2010 Censuses, and
- 2. Small MS4s individually designated by the TCEQ as described in Section III.B of this fact sheet.

### C. Designated Small MS4s Subject to Permitting

Certain small MS4s may be designated by the TCEQ as requiring permit coverage based on federal requirements at 40 CFR § 122.32(a)(2). The TCEQ has developed the following criteria, one or more of which may be considered in designating a small MS4:

- 1. Controls for discharges are determined to be necessary for source water protection of public drinking water resources based on the results of source water assessments by the TCEQ.
- 2. Controls for discharges are necessary to protect sea grass areas of Texas bays as delineated by the Texas Parks & Wildlife Department.
- 3. Controls for discharges are necessary to protect receiving waters designated as having an exceptional aquatic life use.
- 4. Controls are required for pollutants of concern expected to be present in discharges to a receiving water listed in the *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies.
- 5. Discharges from an adjacent small MS4 are determined by TCEQ to be significantly contributing pollutants to the regulated MS4. The TCEQ would

make this determination after receiving a written request by a regulated adjacent MS4 operator.

6. Additional factors relative to the environmental sensitivity of receiving watersheds.

Specific thresholds are not established for each of the designation criteria. Instead, designation must occur following a case-by-case consideration and is based on a finding that controls are necessary to protect water quality. If designated, the MS4 operator will be notified by the executive director and allowed to apply for authorization under either the proposed general permit or an individual TPDES stormwater permit. The application for either permit must be submitted within 180 days of the notice.

In 2002, the TCEQ applied these designation criteria to the small MS4s located outside of a UA which served a jurisdiction with 10,000 or more people, and which had an average density of 1,000 or more people per square mile. At that time, the TCEQ did not designate any small MS4 or portion of a small MS4 that was not located within a UA. The TCEQ may evaluate small MS4s again that meet these criteria, as well as other small MS4s. Small MS4s that are not located within a UA may be designated by TCEQ at any time in the future, and will be required to develop and submit an NOI and SWMP within 180 days of being notified in writing by TCEQ of that designation. TCEQ may also designate small MS4s as a result of a petition received based on 40 CFR §123.35(c). According to the regulations, a determination would need to be made within 180 days of receiving such a written petition.

# **D.** Permit Waivers

Two possible waivers from permitting requirements are provided in the federal rules at 40 CFR §122.32, and are continued in the proposed permit.

- 1. Waiver Option No. 1 A small MS4 may qualify for a waiver if it serves a total population of less than 1,000 within a UA or UAs, and:
  - a. The small MS4 is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the TPDES or NPDES stormwater program (40 CFR § 122.32(d)); and
  - b. If the small MS4 discharges any pollutant(s) that have been identified as a cause of impairment of any water body to which the small MS4 discharges, stormwater controls are not needed based on wasteload allocations that are part of an EPA approved or established Total Maximum Daily Load (TMDL) that addresses the pollutant(s) of concern;

In order to meet this waiver, the small MS4 operator must submit a letter requesting the waiver including the certifying statement that the above-described criteria for Waiver Option No. 1 are met. This waiver request must be submitted on a form approved by the TCEQ.

- 2. Waiver Option No. 2 A small MS4 may qualify for a waiver if it serves a total population of less than 10,000 within a UA or UAs and meets all of the following criteria:
  - a. The TCEQ has evaluated all waters of the U.S., including small streams, tributaries, lakes, and ponds, that receive a discharge from the small MS4;
  - b. For all such waters, the TCEQ has determined that stormwater controls are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or, if a TMDL

has not been developed or approved, an equivalent analysis that determines sources and allocations for the pollutant(s) of concern; and

c. The TCEQ has determined that future discharges from the small MS4 do not have the potential to exceed Texas surface water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

The receiving waters evaluation for Waiver Option 2 is a TMDL-equivalent evaluation that may be performed by the small MS4 using TCEQ protocol with appropriate guidance from the TCEQ. The evaluation would need to include the pollutants of concern, including at a minimum: biochemical oxygen demand (5-day); sediment (or a parameter that addresses sediment such as total suspended solids, turbidity, or siltation); pathogens; oil and grease; and any other pollutant that has been identified as a cause of impairment of any receiving water body. The small MS4 must coordinate with TCEQ Wastewater Permitting staff and Water Quality Assessment staff prior to initiating such a study.

Because of the comprehensive nature of the required receiving water evaluation, and the necessary finding that future discharges from the small MS4 could not potentially exceed water quality standards, Waiver Option No. 2 will be difficult to obtain. However, this option is allowed by federal rules and is therefore included in the proposed general permit and made available to certain small MS4s. The small MS4 would need to first coordinate with the TCEQ to determine if a waiver is attainable under this option, and must complete a TCEQ waiver form after completing all of the necessary studies.

# E. Ineligible Discharges

The following discharges are not eligible for permit coverage under the proposed general permit and must obtain coverage under either an individual or an alternative general TPDES permit:

- 1. Discharges from Phase I (medium and large) MS4s (Phase I MS4s are those that are located in a city or county with a residential population of 100,000 or more based on the 1990 Census);
- 2. Discharges from small MS4s that would cause or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses of receiving waters;
- 3. New sources or new discharges of the pollutant(s) of concern to impaired waters, unless otherwise allowable under TCEQ rules, applicable state law, and any TMDL and TMDL Implementation Plan (I-Plan) that exists for the applicable receiving water;
- 4. Stormwater discharges that combine with sources of non-stormwater, unless the non-stormwater source is an allowable non-stormwater discharge described in the proposed general permit, or the non-stormwater source is authorized under a separate TPDES permit; and
- 5. Discharges otherwise prohibited under existing state rules.
- 6. Discharges that would adversely affect a listed endangered or threatened species or its critical habitat are not authorized by this permit. Federal requirements related to endangered species apply to all TPDES permitted activities, and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved.

#### F. Allowable Non-stormwater Discharges

The following non-stormwater sources may be discharged from the small MS4 and are not required to be addressed in the small MS4's Illicit Discharge and Detection measure, or other minimum control measures (MCMs), provided that they have not been determined by the MS4 operator or the TCEQ to be substantial sources of pollutants to the small MS4:

- 1. Water line flushing (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
- 2. Runoff or return flow from landscape irrigation, lawn irrigation, and other irrigation utilizing potable water, groundwater, or surface water sources;
- 3. Discharges from potable water sources that do not violate Texas surface water quality standards;
- 4. Diverted stream flows;
- 5. Rising ground waters and springs;
- 6. Uncontaminated ground water infiltration;
- 7. Uncontaminated pumped ground water;
- 8. Foundation and footing drains;
- 9. Air-conditioning condensation;
- 10. Water from crawl space pumps;
- 11. Individual residential vehicle washing;
- 12. Flows from wetlands and riparian habitats;
- 13. Dechlorinated swimming pool discharges;
- 14. Street wash water excluding street sweeper waste water;
- 15. Discharges or flows from emergency firefighting activities (firefighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, and similar activities);
- Other allowable non-stormwater discharges listed in 40 CFR § 122.26 (d)(2)(iv)(B)(1);
- 17. Non-stormwater discharges that are specifically listed in the TPDES Multi Sector General Permit (MSGP) TXR050000 or the TPDES Construction General Permit (CGP) TXR150000;
- 18. Discharges that are authorized by a TPDES or NPDES permit or that are not required to be permitted; and
- 19. Other similar occasional incidental non-stormwater discharges, such as spray park water, unless the TCEQ develops permits or regulations addressing these discharges.

Discharge of the waters listed above may contain pollutants that would need to be addressed by the small MS4. For example, discharges from water line flushing could contain levels of chlorine that could have an impact on aquatic life, in which case the small MS4 may need to require that controls be put on the discharge of chlorinated water line flushing.

# G. Discharges from Small MS4 Construction Activities

The proposed general permit provides small MS4 operators an option to discharge stormwater runoff, and certain non-stormwater runoff, from construction sites under the authority of the small MS4 general permit, where the small MS4 is the operator of the construction activity.

In order for the MS4 operator to cover these activities under this general permit, an optional stormwater MCM must be developed and implemented to address these activities. The MCM must describe the general procedures the MS4 operator will develop to implement a stormwater pollution prevention plan (SWP3), with consideration for local weather and soil conditions, and the steps to be taken to meet and maintain the status as operator at small MS4 construction sites. The MS4 operator must also describe in the MCM the area within which construction related discharges will be authorized under this general permit. The permittee may choose to cover activities exclusively within the UA boundary, within corporate limits or extra territorial jurisdiction (ETJ), within special districts, or within other similar jurisdictional boundaries of the permittee. However, discharges from construction activities outside of the regulated area, such as outside of the UA or outside of the area(s) designated by TCEQ, are only eligible for authorization under this general permit for those areas where the MS4 operator meets the requirements of Parts III.B.1. through III.B.6 of the general permit, related to MCMs. The notice of intent (NOI) will require the permittee to provide information or a description on the boundary of coverage.

A separate detailed SWP3 must be developed and implemented for each regulated construction site. Contractors at a construction site where the small MS4 is the sole operator are not required to obtain separate authorization for stormwater discharges, provided the MS4 operator can meet and maintain the status of sole operator for the site, where the contractor does not meet the definition of operator for the site, and where the SWP3 is developed to address the activities of the contractor. If the contractor meets the definition of construction site operator, then the contactor would need to obtain authorization under the TPDES CGP or an individual permit.

40 CFR § 122.28(b)(2)(i), as adopted by reference in 30 TAC § 205.7, requires the submittal of an NOI to authorize certain discharges under a general permit. While 40 CFR § 122.28(b)(2)(v) allows some exceptions to this requirement, it does not exclude the permittee from the requirement to submit an NOI for authorization of discharges of stormwater runoff associated with industrial activity. Because federal rules at 40 CFR § 122.26(b)(14)(x) includes large construction sites in its definition of industrial activity, discharges of construction activity of five or more acres (including activities which are part of a larger common plan of development) are required to submit an NOI. Therefore, if an MS4 operator seeks to obtain coverage for these discharges under the proposed general permit, then the MS4 operator must include information on the construction activities on its NOI required under this general permit. The applicant must develop a SWP3 and include site-specific information on how construction activities will be conducted to control pollution. This information must be formalized as an MCM and incorporated as a part of the MS4 operator's SWMP.

The SWMP that is submitted with the NOI must include this optional MCM in order for the permittee's construction activities to be eligible for authorization under this general permit. The NOI will include a certification statement that the small MS4 must sign, where the MS4 operator agrees to comply with the conditions and requirements of this general permit for its construction activities. This certification

on the NOI will satisfy the previously cited regulatory requirement regarding the NOI. Separate NOIs for each construction activity are not required, provided that the appropriate information is included in the optional control measure. The MS4 operator must subsequently develop a separate SWP3 for each large and small construction activity, and must post a construction site notice that includes a signed certification that a SWP3 was developed and is implemented according to the conditions and requirements of this general permit. The site notice would be considered a "report" for the purposes of this general permit, and therefore may be signed by a person properly authorized by the MS4 operator under 30 TAC § 305.128, regarding delegation of signatory authority for reports.

If the MS4 operator determines that it does not wish to implement the optional seventh MCM at the time of original application under this general permit, and at a later date does choose to utilize this option, then an NOC will be equivalent to the NOI required under the rules.

If this optional MCM is not developed by the MS4 operator, then discharges of stormwater runoff from large and small construction activities must be authorized under the CGP or an individual TPDES permit. Additionally, if the MS4 operator either cannot or chooses not to meet and maintain the status as the sole operator for any specific construction activity, then authorization under a separate TPDES permit must be obtained for the additional operators during construction activities at that specific site. Finally, if the MS4 operator chooses not to utilize this optional MCM for one or more construction activities, then the MS4 operator must obtain separate authorization for the site(s) under the TPDES CGP or individual TPDES permit.

# IV. Permit Conditions and Effluent Limitations

# A. Notice of Intent

The proposed permit would require small MS4s to submit to the TCEQ a notice of intent (NOI) to comply with the conditions of the general permit, along with an attached SWMP.

# **B.** Public Notice and Public Participation

An applicant under the proposed general permit would be subject to the following procedures:

- 1. The applicant must submit the NOI and attached SWMP to the executive director. TCEQ staff will review the application for administrative and technical completeness.
- 2. After the applicant receives written instructions from the TCEQ's Office of Chief Clerk, the applicant must publish notice of the executive director's preliminary determination on the NOI and SWMP.
- 3. The notice will be provided to the applicant, and will include, at a minimum:
  - a. The legal name of the applicant;
  - b. An indication whether the NOI is for a new small MS4 or is a renewal of an existing authorization;
  - c. The address of the applicant;

- d. A brief summary of the information included in the NOI, such as the general location of the small MS4 and a description of the classified receiving waters that receive the discharges from the small MS4;
- e. The location and mailing address where the public may provide comments to the TCEQ;
- f. The public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed; and
- g. If required by the executive director, the date, time, and location of the public meeting.
- 4. This notice must be published at least once in a newspaper of general circulation in the municipality or county where the small MS4 is located. If the small MS4 is located in multiple municipalities or counties, the notice must be published at least once in a newspaper of general circulation in the municipality or county containing the largest resident population for the regulated portion of the small MS4. This notice must provide opportunity for the public to submit comments on the NOI and SWMP. In addition, the notice must allow the public to request a public meeting (equivalent to a "public hearing" as required by 40 CFR §122.28(d)(2)(ii)). A public meeting will be held if the TCEQ determines that there is significant public interest.
- 5. The public comment period begins on the first date the notice is published and ends 30 days later, unless a public meeting is held. If a public meeting is held, the comment period will end at the closing of the public meeting. The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI or SWMP for the small MS4 fails to meet the technical requirements or conditions of this general permit.
- 6. If significant public interest exists, the executive director will direct the applicant to publish notice of the public meeting and to hold the public meeting. The applicant must publish notice of a public meeting at least 30 days before the meeting and hold the public meeting in a county where the small MS4 is located. TCEQ staff will facilitate the meeting.
- 7. If a public meeting is held, the applicant must be able to explain the contents of their NOI and SWMP. The applicant must also provide maps and other data on the small MS4. The applicant must provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the executive director. A public meeting held under this general permit is not an evidentiary proceeding.
- 8. The applicant must file with the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Chief Clerk.
- 9. The executive director, after considering public comment, will either approve, approve with conditions, or deny the NOI based on whether the NOI and SWMP meet the requirements of this general permit.
- 10. Persons whose names and addresses appear legibly on the sign in sheet from the public meeting and persons who submitted written comments to the TCEQ will be notified by the TCEQ's Office of Chief Clerk of the executive director's decision regarding the authorization.

# C. Stormwater Management Program (SWMP)

The proposed SWMP requirements were developed based on:

- 1. The existing Phase II MS4 General Permit TXR040000 issued on December 13, 2013;
- 2. Input from the Stormwater Stakeholder Work Group;
- 3. Federal Phase II MS4 rules of 40 CFR § 122.28 and §§122.33 -122.35;
- 4. EPA guidance document of April 2010, entitled MS4 Permit Improvement Guide;
- 5. EPA Compendium of MS4 Permitting Approaches (EPA, 2016); and
- 6. EPA comment letters on Small MS4 draft permit (December 4, 2017, and July 31, 2018).

The proposed general permit allows small MS4s to share resources in meeting the responsibilities of the SWMP with other regulated MS4s that are either physically interconnected or that are located in the same watershed. This allowance will help to foster a more coordinated approach to resolving local water quality issues and to provide a more efficient use of local MS4 resources. MS4s may combine or share efforts necessary to meet the SWMP requirements of the permit, but each MS4 must be separately authorized (individual NOIs are required). Additionally, individual SWMPs must be developed and maintained by each of the MS4s. Each operator is separately responsible for compliance with the conditions of the general permit and the SWMP, even if efforts are combined or shared between the MS4s.

Small MS4s must develop a SWMP, according to the provisions of this general permit, to the extent allowable under state and local law, to address the portions of the small MS4 that are either located within the UA or that are designated by the TCEQ, with discharges that reach waters of the U.S.. Waters of the U.S. are defined in the general permit. Waters of the U.S. do not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA. This exclusion applies only to manmade bodies of water that neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland.

The SWMP is a comprehensive document that details the steps that the small MS4 will take to reduce or eliminate pollutants in stormwater discharges to the MEP. The phrase "to the extent allowable under local law," as used in the paragraph above, means that small MS4s must develop any necessary ordinances, regulations, or other regulatory controls to meet the general permit requirements to the extent that their authority to make such ordinances is not prohibited by state or federal statutes or regulations.

Under the two-step permitting approach the SWMP details the terms and conditions of the general permit. The SWMP is therefore considered part of the permit thereby making terms and conditions in an approved SWMP enforceable. Like the general permit, language in the SWMP must be clear, specific, and measurable and meet requirements under the Remand Rule. Proposed SWMPs submitted to TCEQ during the renewal process will, during the technical reviews, be screened to ensure that terms and conditions are consistent with the Remand Rule.

Operators of non-traditional small MS4s, such as counties, drainage districts, and transportation entities, may lack the authority to develop ordinances or to implement enforcement actions. For these MS4 operators, the general permit requires the permittee to enter into inter-local agreements with municipalities in which the small MS4 is located. These inter-local agreements must include procedures for enforcement and inspections to the extent necessary to meet the goals of the general permit. Where the permittee is unable to enter into an inter-local agreement, the

permittee may report instances of non-compliance or possible illicit discharges to the appropriate TCEQ Regional Office for possible follow-up investigations or enforcements.

The permit requires the small MS4 to ensure that is has adequate resources and funding necessary to meet all requirements of the permit.

The small MS4s must develop a SWMP to include the MCMs described below, which are based on federal rules at 40 CFR§122.28, §122.34(b) and §122.26(d)(2)(iv). The MS4 must select BMPs under each MCM along with measurable goals that are used to determine the effectiveness of the SWMP. The permit continues the tiered approach introduced in the Small MS4 General Permit issued on December 13, 2013, to meet the MCM requirements such that some categories, or Levels, of MS4 operators are not required to implement all or all parts of the MCMs. The small MS4s are continued to be categorized by the following four Levels:

Level 1: Operators of small MS4s that serve a population less than 10,000 within a UA;

Level 2: Operators of small MS4s that serve a population of at least 10,000 but less than 40,000 within a UA. This category also includes all non-traditional small MS4s such as counties, drainage districts, transportation entities, universities, colleges, correctional institutions, municipal utility districts and other special districts regardless of the population served within a UA or UAs;

Level 3: Operators of small MS4s that serve a population of at least 40,000 but less than 100,000 within a UA;

Level 4: Operators of small MS4s that serve a population of 100,000 or more within a UA.

The six MCMs are separately described below and include:

### 1. Public Education, Outreach, and Involvement

The federal Phase II rules require regulated small MS4 operators to implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff (see 40 CFR 2.34(b)(1)). The rules also require a public involvement and participation program that complies with state and local public notice requirements (see 40 CFR 122.34(b)(2)).

The draft general permit requires small MS4s to educate the public about the impact of stormwater discharges on receiving water bodies and what steps they can take to reduce the contamination of stormwater. The small MS4s are encouraged to use existing public materials in their program, such as using examples from the EPA's Nonpoint Source Outreach Toolbox (<u>www.epa.gov/nps/toolbox</u>) or from other agencies and municipalities with similar public education goals.

The SWMPs can be greatly improved by involving the community throughout the entire process of developing and implementing the program. Involving the community will benefit the permittee itself as well as the community. By listening to the public's concern and coming up with solutions together, the permittee will gain the support of the public and the community will become invested in the program.

The permittee will likewise gain even more insight into the most effective ways to communicate its messages.

The permit requires the permittee to involve the public (for example, provide opportunities for public comment or public meeting) in the development of the program. Public input and involvement can include many different activities such as meeting with local land planners and provide input on land use code or ordinance updates, stream clean-ups, storm drain marking, and volunteer monitoring.

As a new requirement to this general permit, MS4s having a public website are required to post their SWMP and the annual report on their website to share information with the public.

Permittees are encouraged to work together with other entities that have an impact on stormwater to implement this MCM.

# 2. Illicit Discharge Detection and Elimination (IDDE)

The Phase II regulations require regulated small MS4 operators to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4 (*See* 40 CFR §122.34(b)(3)). Through the IDDE MCM the permittee is required to respond to complaints about illicit discharges or spills and to actively investigate illicit discharges and behaviors that could result in illicit discharges such as illegal connection to the small MS4, improper disposal of wastes, or dumping of used motor oil or other chemicals.

The permit requires the permittee to have an up-to-date MS4 map. Level 4 permittees are required to identify areas with a high risk for illicit discharges, and these areas must be prioritized for more frequent investigations. Priority areas could include: (1) Areas with older infrastructure that are more likely to have illicit discharges; (2) Industrial, commercial, or mixed use areas; (3) Areas with a history of illegal dumping; (4) Areas with a history of illegal discharges; (5) Areas with onsite sewage disposal systems; (6) Areas with older sewer lines or with a history of sanitary sewer overflows (SSOs) or cross-connections; (7) Areas that discharge to sensitive waterbodies; and (8) Areas within sensitive watersheds.

The CWA § 402(p)(3)(B)(ii), requires MS4 permits to "effectively prohibit nonstormwater discharges into the storm sewers." The permit implements this requirement, in part by requiring the development of procedures to investigate and eliminate illicit discharges. Standard operating procedures (SOPs) with necessary forms provide guidance to investigators and ensure that consistent investigations occur of every illicit discharge incident.

The public must have a central contact point, such as a stormwater hotline, to report observed illicit incidents. An incident could be anything from an overturned gasoline tanker to sediment leaving a construction site or a sanitary sewer overflow entering the storm drain.

The permit requires the permittee to implement a method for informing or training field staff, who may come into contact or observe illicit discharges, on the identification and proper procedures for reporting illicit discharges. Field staff to be trained may include, but are not limited to, municipal maintenance staff, inspectors, and other staff whose job responsibilities regularly take them out of the office and into areas within the MS4 area. Permittee field staff is out in the community on a day-to-day basis and are in the best position to locate and report spills, illicit discharges, and potentially polluting activities. With proper training and information

on reporting illicit discharges easily accessible, these field staff can greatly expand the reach of the IDDE program.

The permit requires MS4s serving a population more than 100,000 (Level 4 MS4s) to develop a dry weather screening program. The program consists of field observations and field screening monitoring. Visually screening outfalls during dry weather and conducting field tests, where flow is occurring, will assist permittees in determining the source of illicit discharge. For example, the presence of surfactants is an indicator that sewage could be present in the discharge and the parameters specific conductivity, ammonia, surfactant, pH and other chemicals may similarly be indicative of industrial sources.

Under this general permit, Level 4 MS4s are also required to develop a program to reduce the discharge of floatables (for example, litter and other human-generated solid refuse) in the MS4. The MS4 will be required to maintain two locations where floatable material can be removed before the stormwater is discharged to or from the MS4. This program has been in place for similar size MS4s under the federal Phase I MS4 regulations that were issued in 1990 and defined Phase I MS4s as MS4s located in an incorporated place with a population of 100,000 or more but less than 250,000 as determined by the 1990 Decennial Census by the U.S. Bureau of the Census. (40 CFR § 122.26(b)(7)(i)). It is therefore appropriate to add this requirements to these similar size MS4s.

### 3. Construction Site Stormwater Runoff Control

The Phase II regulations require regulated small MS4s to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to the MS4 from construction activities that result in a land disturbance of one acre or greater (*See* 40 CFR § 122.34(b)(4)). In this permit, the definition for construction activity is clarified to also include construction related activities such as stockpiling of fill material and demolition.

The permit requires the permittee to ensure that construction site operators use appropriate erosion and sediment controls to reduce or eliminate impacts on receiving water bodies.

The permittee is required to implement procedures to conduct inspections of large and small construction projects. Level 3 and4 MS4s are further required to maintain an inventory of construction sites in their area. This will help the permittee to effectively know where the construction activities are occurring. A construction site inventory could track information such as project size, disturbed area, distance to any water body or flow channel, when the erosion and sediment control or stormwater plan was approved by the permittee, and whether the project is covered by the TCEQ's CGP. Such information will help the permittee to track and target its inspection.

The permit requires the permittee to develop and implement site plan review procedures, which describes which plans will be reviewed as well as when an operator may begin construction. The permittee is required to develop SOPs to perform the site plan reviews to ensure that the review process is consistent. The site plan review also provides the permittees with a way to track construction sites.

The permit requires the permittee to implement procedures for performing inspections of construction sites. Inspection frequencies must be based on the evaluation of factors that are a threat to water quality such as soil erosion potential, site slope, proximity to receiving waters, and water quality status of the receiving

water. The sites must be inspected during the active construction phase, to ensure that stormwater controls are maintained.

For inspections to be successful the permittee is required to develop inspection and enforcement procedures. The permit language includes minimum requirements that construction site inspections must include. Also, the permittee must ensure MS4 staff is trained to perform the inspections.

# 4. Post-Construction Stormwater Management in New Development and Redevelopment

The Phase II stormwater regulation requires regulated small MS4s to develop, implement, and enforce a program to address stormwater discharges from new development and redevelopment sites that disturb one acre or more, and requires that the program ensure controls are in place that would prevent or minimize water quality impacts (*See* 40 CFR §122.34(b)(5)).

Developed land changes the hydrology of sites, potentially leading to higher stormwater discharge volume and higher pollutant loads. Frequently, the volume, duration, and velocity of stormwater discharges can cause degradation to aquatic systems.

The permit requires that MS4 operators have owners and developers install and maintain stormwater control measures appropriate for the community. In addition, permittees are required to maintain all long term post-construction stormwater controls measures. In many cases, controls will be located on private property, and it will be necessary to establish some provisions to assure the responsibility and accountability for the operation and maintenance of these controls.

Structural controls may include practices such as rainwater harvesting, rain gardens, permeable pavement, and vegetated swales; which are considered to be low impact development practices or green infrastructure BMPs.

The permittees are required to inspect post-construction controls to ensure that control measures are operating correctly and are being maintained. Without maintenance, stormwater controls will not be able properly to protect water quality.

For the purpose of the permit "Redevelopment" does not include routine maintenance activities and linear utility installation. Examples of linear utility installation are construction activities that maintain the original line, grade, and hydraulic capacity of the surrounding areas, such as the installation of underground gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains and water mains. Routine maintenance activities are construction activities that are performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including but not limited to: (1) Re-grading of gravel roads or parking lots; (2) stream bank restoration projects (does not include the placement of spoil material);(3) Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch; (4) Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment; (5) Full depth milling and filling of exiting asphalt pavements, replacement of concrete pavements slabs, and similar work that does not expose soil or disturb the bottom six inches of subbase material; (6) Long-term use of equipment storage areas at or near highway maintenance facilities; (7) Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the

highway ditch or embankment; and (8) Replacement of curbs, gutters, sidewalk and guard rail posts.

#### 5. Pollution Prevention and Good Housekeeping for Municipal Operations

The stormwater Phase II regulations require operators of regulated MS4s to develop and implement an operation and maintenance program that includes a training component with the ultimate goal of preventing or reducing pollutant runoff from municipal operations (*See* 40 CFR §122.34(b)(6)).

The permit requires the MS4 operator to maintain an inventory of municipal facilities and of stormwater controls. Municipally owned facilities serve as hubs of activity for a variety of municipal staff from many different departments. Some municipalities will have one property where all activities take place (for example, the municipal maintenance yard), whereas others will have several specialized facilities. An inventory of facilities will assist staff responsible for stormwater compliance build a better awareness of their locations within the small MS4 service area and their potential contribution to stormwater pollution. The facility inventory will also serve as a basis for setting up periodic facility assessments and developing, where necessary, facility stormwater pollution plans.

The permit requires Level 3 and Level 4 permittees to perform, once per permit term, an assessment of its facilities to identify which of the facilities are most likely to contribute stormwater pollutants and that need stormwater controls. Those facilities with a high potential to generate stormwater pollutants must be described as *high priority* facilities and this category of facilities are required to have facility specific stormwater management SOPs. Developing and maintaining site-specific SOPs for each facility will help ensure that employees responsible for facility operation are aware of the stormwater controls required for the site.

The permit requires Level 3 and Level 4 permittees to develop an inspection program to perform inspections of, at a minimum, high priority municipal facilities and to document the results of the inspections. Regular inspections will allow inspectors to observe different types of operations that occur at different times of the year (e.g. landscape maintenance crews are less active in the winter) and ensure that corrective action can be taken where necessary to improve stormwater controls.

The permit includes requirements for MS4 operation and maintenance activities, such as maintaining the storm sewer system, maintaining roads, and managing chemical applications. Level 3 and Level 4 small MS4s are required to develop an operations and maintenance (O&M) program to reduce the collection of pollutants in catch basins and other surface drainage structures. Catch basins collect and trap stormwater pollutants such a as sediments, metals, hydrocarbons, bacteria, pesticides, trash, and other pollutants. Since these basins collect solids they need to be cleaned out on a regular basis to prevent pollutants from being discharged to water bodies. The materials removed from catch basins need to be treated and disposed of in a manner so that it does not reenter the small MS4.

The O&M of roads may, for Level 3 and Level 4 small MS4s, include a street sweeping program. Street sweeping removes both fine and large particles from streets and therefore has a positive effect on water quality. Some small MS4s have roads without a curbs and gutters, and they are therefore not suitable for street sweeping. In these cases source controls or inlet protection measures, to minimize pollutant discharges to storm drains and creeks, can be used in place of sweeping.

The permit includes requirements for Level 4 small MS4s for managing public spaces, such as by addressing the application of pesticides, herbicides, and fertilizers. The permit language encourages non-chemical solutions, such as using native plants that are adapted to local conditions and therefore requires fewer chemicals and to replace pesticide use with manual insect and weed removal thereby reducing chemical exposure to stormwater.

The Phase II regulations found at 40 CFR §122.34(b)(6) specifically requires that the permittee develop a "training component" that trains employees "to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance. The permit requires the permittee to develop a training program to train all appropriate employees involved in implementing pollution prevention and good housekeeping practices.

The permit includes language for situations where permittees use third-party contractors to conduct municipal maintenance activities. Contractors must be held to the same standards as the permittee.

This permit adds a requirement for Level 4 MS4s to assess their flood control projects for their impacts on receiving waters and determine if existing structures could be retrofitted. New flood control projects must be designed, constructed, and maintained to provide erosion control and pollutant removal from stormwater. This program has been in place for similar size MS4s under the Phase I MS4 program since the federal Phase I stormwater regulations were issued in 1990, and it is therefore appropriate to add these requirements to these similar size MS4s.

# 6. Industrial Stormwater Sources

The Phase I stormwater regulation, found at 40 CFR §§122.26(d)(2)(i)(B, C,E, and F), 122.26(d)(2)(iv), and 122.26(d)(2)(iv)(A), requires permittees to develop and implement an inspection and oversight program to monitor and control pollutants in stormwater discharges from industrial facilities.

The permit continues the Industrial Stormwater Sources MCM for small MS4s that serve a population of 100,000 or more within a UA. EPA's MS4 Improvement Guide recommends this MCM be included in Phase II permits, and TCEQ has decided that it is appropriate to include it for those Phase II MS4s that have similar populations as the Phase I MS4s.

The permit requires the permittee to identify and control pollutants in stormwater discharges to small MS4s from industrial or commercial sites that contributes a substantial pollutant loading to the small MS4. The permit language under this MCM is similar to language in some Phase I MS4 individual permits.

# 7. Authorization for Construction Activities Where the MS4 is the Site Operator

The MS4 operator may develop an optional seventh MCM for discharges from construction activities, and may obtain authorization under the general permit for discharges from construction activities where the MS4 is the operator. In order to qualify for this provision, MS4 operators must maintain control over the plans and specifications of the construction activity, or must maintain the status of the operator with day-to-day operational control over the construction site, to the extent necessary to meet the requirements of the SWP3 for that site.

Implementation of this MCM allows the small MS4 to obtain the necessary authorization under the terms of this five-year term permit and replaces the requirement to seek separate permit coverage for each construction activity that it conducts. Where the small MS4 is able to demonstrate it is the sole operator for these activities, by meeting both criteria listed in the definition of "construction site operator," contractors would not have to seek separate authorization. This provision is allowed for construction activities located in the regulated area, such as within a UA or within an area designated by TCEQ.

Small MS4s are required to summarize in the annual report pertinent information related to the construction activities performed in the previous year. Small MS4s electing this provision must notify the TCEQ when submitting the NOI, along with an attached SWMP that includes this measure. Utilization of the optional seventh MCM does not preclude a small MS4 from obtaining coverage under the TPDES Construction General Permit, TXR150000, or under an individual TPDES permit.

# 8. SWMP Implementation.

The SWMP may be implemented on a scheduled stepwise basis throughout the term of the general permit. If full development and implementation of the SWMP is not practicable, then the program must be developed with targeted milestones establishing a schedule that represents the MEP standard.

Implementation must be initiated upon receipt of written approval from the TCEQ of the NOI and SWMP. The general permit contains provisions that allow revisions to the SWMP throughout the term of the permit, without immediate notification to the TCEQ, so that SWMPs can be adjusted based on experiences and findings to become more effective and efficient. Schedules for SWMP implementation, the status of the implementation schedules, and modifications to the SWMP must be summarized in the annual report. These permit provisions allow small MS4s to develop and implement SWMPs according to available funding, manpower, and ability and allow for revisions where more efficient or effective BMPs are identified. Complete implementation of the SWMP is required within five years from the date of issuance of the general permit.

During the application process, regulated MS4 operators must implement the SWMP that was approved under the previous permit term, and they will have five years to implement new portions of the SWMP.

Federal rules at 40 CFR § 123.35(g) require permitting authorities to issue a menu of BMPs to assist small MS4s in complying with the Phase II regulations. TCEQ has adopted the EPA menu of BMPs by including that menu as a resource to small MS4s through a link on the TCEQ stormwater web page at:

https://www.epa.gov/npdes/national-menu-best-management-practices-bmpsstormwater#edu

The TCEQ may develop additional guidance during the term of this permit and will make any guidance available on the TCEQ's web page at:

https://www.tceq.texas.gov/permitting/stormwater/ms4

and

https://www.tceq.texas.gov/assistance/water/stormwater/sw-ms4.html

#### **D.** Reporting Requirements

- 1. The proposed general permit requires small MS4s to provide documentation on the development, implementation, and evaluation of the SWMP. The documentation must be included as a part of the SWMP and may be required to be submitted in the annual report. The preparation and review of the annual report by the small MS4 may ensure progressive improvement of stormwater controls and reduce pollutants to the maximum extent practicable. At a minimum, the documentation must include:
  - a. A list of any public or private entities assisting with the development or implementation of the SWMP;
  - b. If applicable, a list of MS4 operators contributing to the development and implementation of the SWMP, including a clear description of the contribution;
  - c. A list of all BMPs and measurable goals for each of the MCM;
  - d. A schedule for the implementation of all SWMP requirements;
  - e. A description of how each measurable goal will be evaluated; and
  - f. A rationale statement that addresses the overall program, including how the BMPs and measurable goals were selected.
- 2. Additionally, the small MS4 must evaluate the following items and must include the information in an annual report:
  - a. Program compliance;
  - b. The appropriateness of the chosen BMPs; and
  - c. Progress toward achieving identified measurable goals.
- 3. On December 21, 2015, EPA issued the NPDES Electronic Reporting Rule (40 CFR Part 127) requiring NPDES regulated entities to report electronically. Therefore, by December 21, 2020, TCEQ requires small MS4s to submit applications and annual reports electronically by using the e-permitting system on the TCEQ website.

### V. Changes From Existing General Permit:

The major changes to the permit include the following:

- 1. Added the following definitions: "Infeasible", "Benchmarks", "Implementation Plan (I-Plan)".
- 2. Revised definition for "construction activity" to include other construction related activities (e.g. stock piling of fill material and demolition) to be consistent with the TPDES CGP TXR150000 effective on March 5, 2018. (Part I in the permit)
- 3. Revised the definition for "Impaired Water" to include TMDL waterbodies that are listed on the latest EPA approved *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies as not meeting applicable state water quality standards. (Part I in the permit)

- 4. Revised the definition of "Waters of the United States" by removing "cooling ponds" since they are no longer defined in 40 CFR § 423.11. (Part I in the permit)
- 5. Updated language throughout the permit to comply with the Phase II MS4 Remand Rule issued on December 9, 2017, to make the language clear, specific, and measurable.
- 6. Added that SWMP updates that are considered major permit modifications require public notice and an opportunity for a public meeting (equivalent to a "public hearing" as required by 40 CFR §122.28(d)(2)(ii)). (Part II.E.6 in the permit)
- 7. Added that the levels of small MS4s is based on most recent U.S. Census at the time of permit issuance. A national Census held during a permit term will not affect the level on an MS4 until the general permit is renewed. (Part II.A.5 in the permit)
- 8. Clarified that waters listed on both the CWA § 303(d) list and the *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies are considered impaired and added a new requirement to annually check for newly impaired waters in the MS4's permitted area. Newly listed water bodies must be address in the SWMP within two years from the approval date of the new list(s) (Part II.D.4 in the permit)
- 9. Added a requirement that by December 21, 2020, permittees must submit applications and annual reports online using the electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. (Part II.E and Part VI.B.2 in the permit)
- 10. Made clarifications to BMPs and replaced "benchmark" with "benchmark value" where appropriate. (Part II.D.4 of the permit)
- 11. Clarified that regulated MS4s located in a 2010 and 2000 UAs (previously regulated MS4s) are required to apply. (Part II.E.1 in the permit)
- 12. Added a requirement that permittees must conduct an annual review of its SWMP in conjunction with preparation of the annual report. (Part II.E.4 in the permit)
- 13. Added a new section "Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation" explaining that implementation of the SWMP in new areas must be done as expeditiously as possible, but no later than three years from addition of the new area. Within 90 days of transfer of ownership, operational control, or responsibility for SWMP implementation the MS4 must have developed a plan for implementing the SWMP. (Part II.E.7 in the permit)
- 14. Removed a section under SWMP Development and Schedule for new regulated small MS4s. (Part III.A.1 in the permit)
- 15. Added language under MCM 1. Public Education, Outreach, and Involvement that the permittee is required to post its SWMP and annual report on its website, if the MS4 has a website. (Part III.B.1 in the permit)
- 16. Added a requirement to MCM 2. Illicit Discharge Detection and Elimination that Level 4 MS4s needs to develop a program to reduce the discharge of floatables in the MS4. (Part III.B.2 in the permit)

- 17. Clarified under MCM 3. Construction Site Stormwater Runoff Control that soil stabilization must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures to be consistent with the TPDES CGP TXR150000. (Part III.B.3 in the permit)
- 18. Added a requirement under MCM 5. Pollution Prevention and Good Housekeeping for Municipal Operations that Level 4 MS4s need to evaluate their flood control projects to assess their impacts on receiving waters. (Part III.B.5 in the permit)
- 19. Replaced "Field Operations Support Division" with "The appropriate TCEQ Regional Office." (Parts III and IV in the permit)
- 20. Under the 7<sup>th</sup> optional MCM. Authorization for Municipal Construction Activities, lowered the benchmark value for suspended solids from 100 mg/L to 50 mg/L for concrete batch plants for consistency with Sector E in the MSGP TXR050000 issued on August 14, 2016 and the CGP TXR150000 issued on March 8, 2018. (Part VI.E in the permit)
- 21. Added a requirement that analytical results must be obtained from a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory according to state rules listed in 30 TAC Chapter 25. (Part VI.E in the permit)
- 22. The application fee for submittal of an NOI was increased from \$100.00 to \$400.00.

#### VI. Addresses

Questions concerning this proposed general permit should be sent to:

TCEQ, Stormwater Team Leader Wastewater Permitting Section (MC-148) P.O. Box 13087 Austin, Texas 78711-3087 (512) 239-4671 swgp@tceq.texas.gov

Comments regarding the proposed general permit during the public comment period must be submitted either by mail to the following address, by facsimile (fax) followed by mail, or electronically as described below (please refer to the public notice for official instructions):

<u>By Mail</u>: TCEQ, Chief Clerk's Office (MC-105) P.O. Box 13087 Austin, Texas 78711-3087

By fax: (512) 239-3311\*

\*Fax must be followed by hard copy in mail to CCO at address above within three days of fax date.

**Electronically**:

http://www14.tceq.texas.gov/epic/eComment/

#### **Questions Regarding Public Comments Should Be Directed to CCO: (512)** 239-3300

Supplementary information on this Fact Sheet is organized as follows:

## VII. Legal Basis

Texas Water Code (TWC) Section (§) 26.121 makes it unlawful to discharge pollutants into or adjacent to water in the state except as authorized by a rule, permit, or order issued by the commission. TWC, § 26.027 authorizes the commission to issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to water in the state. TWC, § 26.040 provides the commission with authority to amend rules adopted under TWC § 26.040 prior to amendment of the statute by House Bill (HB) 1542 in 1997, and to authorize waste discharges by general permit. On September 14, 1998, TCEQ and EPA executed a memorandum of agreement (MOA) delegating to TCEQ administration of the NPDES program, which is operated as the TPDES program in the state.

CWA, §§ 301, 304, and 401 (33 United States Code (USC), §§ 1331, 1314, and 1341) include provisions that state that NPDES permits must include effluent limitations requiring authorized discharges to: (1) meet standards reflecting levels of technological capability; (2) comply with EPA-approved state water quality standards; and (3) comply with other state requirements adopted under authority retained by states under CWA, § 510 and 33 USC, §1370.

# VIII. Regulatory Background

The 1972 amendments to the Federal Water Pollution Control Act, later referred to as the CWA, prohibit the discharge of any pollutant to navigable waters of the U.S. from a point source unless the discharge is authorized by an NPDES permit. Efforts to improve water quality under the NPDES program traditionally have focused on reducing pollutants in industrial process wastewater and municipal sewage treatment plant discharges. Over time, it has become evident that more diffuse sources of water pollution, such as stormwater runoff from small MS4s, are also significant contributors to water quality problems. EPA developed permit requirements for small MS4s that are intended to improve water quality by reducing the quantity of pollutants that stormwater discharges into storm sewer systems during storm events.

In 1990, EPA promulgated rules establishing Phase I of the NPDES stormwater program. Phase I addresses discharges from medium and large MS4s, which are those MS4s with a population of 100,000 people or more, based on the 1990 Census. Phase I MS4s were required by the EPA to obtain individual NPDES permits. No additional Phase I MS4s will be created by later census results.

The federal Phase II stormwater regulations extended permitting requirements to certain small MS4s, and required that a more general stormwater management program (SWMP) be developed than was required for medium and large MS4s under Phase I. The Phase II regulations were published on December 8, 1999 in the *Federal Register*, requiring affected small MS4s to obtain permit coverage by March 10, 2003. The Phase II regulations are identified in federal rules at 40 CFR §§ 122.30 through 122.37, which were adopted by the TCEQ at 30 TAC § 281.25(b). In 2016, EPA issued the Small MS4 Remand rule, which is a procedural federal rule ensuring that states review BMPs selected by the MS4s and ensures the public are provided notice and the

opportunity to request a public hearing on applications for MS4 permit coverage. The Phase II regulations were revised in 40 CFR §§122.33 and 122.34 and a new paragraph (d) was added to 40 CFR §122.28 requiring permitting authorities to select one of two general permit options.

This proposed TPDES general permit would offer the necessary authorization for these small MS4 discharges.

## IX. Permit Coverage

- 1. The proposed general permit would apply to discharges of stormwater runoff associated with small MS4s. The guidelines for small MS4s were published in the *Federal Register* on December 8, 1999 (64 FR 68722).
- 2. Applicants seeking authorization to discharge stormwater runoff from small MS4s under the conditions and requirements of the proposed general permit must submit a completed NOI on a form approved by the executive director, as well as a description of the SWMP. The NOI form will include at minimum, the legal name and address of the owner and operator, the facility name and address, a specific description of its location (including the street address, if applicable, and county), the type of facility and discharge, the name of the receiving water, information on impaired waters, the boundary of the area where construction activities are covered under the general permit (if the optional MCM is developed), and other information requested by the TCEQ. The NOI must be signed according to TCEQ rules at 30 TAC § 305.44, which establishes requirements regarding who may sign an application for a permit, and requires that a legal certification be made regarding the permit application. The specific language in this rule can be found at:

<u>http://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac\_view=3&ti=30&pt =1</u>

by searching Chapter 305, Subchapter C (related to Application for Permit).

MS4 operators can locate information regarding the classified segment(s) receiving the discharges from the MS4 in the "Atlas of Texas Surface Waters" at the following TCEQ web address. This document includes identification numbers, descriptions, and maps:

http://www.tceq.texas.gov/comm\_exec/forms\_pubs/pubs/gi/gi-316/index.html

or use the Surface Water Quality Data Viewer found at the TCEQ web address at:

https://www.tceq.texas.gov/waterquality/monitoring/index.html

MS4 operators can find the latest EPA-approved list of impaired water bodies (the Texas 303(d) List) and the *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d),* which lists the category 4 and 5 water bodies, at the following TCEQ web address:

http://www.tceq.texas.gov/compliance/monitoring/water/quality/data/wqm/30 5\_303.html

MS4 operators need to use the *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)* which lists the category 4 and 5 water bodies to search for impaired water bodies with an approved TMDL, since those water bodies no longer are listed on the CWA 303(d) list.

If a waterbody with a TMDL eventually meets water quality standards, it is moved to category 1 and will be removed from the *Texas Integrated Report of Surface Water Quality for Clean Water Act (CWA) Sections 305(b) and 303(d)*. However,

if the TMDL is still in place for the waterbody, MS4s must continue to follow the TMDL implementation plan for that waterbody to ensure that water quality standards are met.

- 3. Submission of an NOI and SWMP is an acknowledgment by the regulated small MS4 that the conditions of this general permit are applicable to the proposed discharges and that the applicant agrees to comply with the conditions of the general permit. Discharge authorization begins when the applicant is notified by TCEQ that the NOI and SWMP have been administratively and technically reviewed, and the applicant has followed the public participation provisions in the general permit. The documents must be submitted by certified mail, return receipt requested, to the address indicated on the NOI form. Following review of the NOI, SWMP, and any public comments received on the application, the executive director will determine that: 1) the submission is complete and confirm coverage by providing a notification and an authorization number, 2) the NOI or SWMP are incomplete and deny coverage until a complete NOI and SWMP are submitted, or 3) approve the NOI and SWMP with revisions and provide a written description of the required revisions along with any compliance schedule(s), or 4) deny coverage and provide a deadline by which the MS4 operator must submit an application for an individual permit. Denial of coverage under the general permit is subject to the requirements of 30 TAC § 205.4(c). After receiving written approval from the TCEQ, the applicant must implement the approved SWMP in accordance with the terms and conditions of the general permit.
- 4. If the operational control of the small MS4 changes, the present operator must submit an NOT and the new operator must submit an NOI and SWMP to obtain authorization under this general permit. The NOT and NOI must be submitted concurrently no greater than 10 days after the change occurs.
- 5. It is the intent of TCEQ to allow a permittee to annex lands and accept the transfer of operational authority over portions of the small MS4 without requiring submittal of an NOC. Implementation of appropriate SWMP elements for the new areas is required in accordance with the general permit. The permittee must notify TCEQ about the new areas in the annual report.
- 6. A permittee must submit current information to the executive director by submitting a NOC no later than 30 days before a change occurs in information previously provided to the executive director within an NOI.

An NOC is also required for changes to the SWMP that are made after TCEQ has approved the NOI and SWMP. If changes are proposed before the applicant has received written approval of the NOI and SWMP from the TCEQ, then this information must be submitted in a letter to supplement application information.

Updates to the SWMP during the permit term may be made by submittal of a NOC unless the changes are non-substantial in which case no NOC is required. The permit includes: 1) a list of changes that do not require an NOC; 2) a list of changes that require an NOC; and 3) a list of changes that require an NOC and public notice.

If a public notice is required, the permit requires the MS4 to publish the notice on the MS4's website, along with the NOC and revised SWMP for any proposed changes submitted by MS4s classified as a major permit modification. If the MS4 does not have a website, TCEQ will publish the public notice on the TCEQ website.

The public notice for the original NOI will include the link to the MS4's or the TCEQ website to provide the public with notice of where the public may view the

SWMP, annual report, and public notices for any notices of change that are subject to the requirements for 40 CFR § 122.62.

An NOC must be signed according to TCEQ rules at 30 TAC § 305.44. The permit also includes information regarding time frames for implementing changes requested in an NOC.

7. A discharger may terminate coverage under the general permit by providing a Notice of Termination (NOT) on a form approved by the executive director. The NOT must be signed according to TCEQ rules at 30 TAC § 305.44. Authorization to discharge terminates at midnight on the day that an NOT is postmarked for delivery to the TCEQ. If TCEQ provides for electronic submission of NOTs during the term of this permit, authorization to discharge terminates 24 hours following confirmation of receipt of the electronic NOT form by the TCEQ.

# X. Technology-Based Requirements

The conditions established by the general permit are based on CWA §402(p)(3)(B) that mandates that a permit for discharges from MS4s must:

- 1. Effectively prohibit the discharge of non-stormwater to the MS4; and
- 2. Require controls to reduce pollutants in discharges from the MS4 to the MEP including BMPs, control techniques, and system, design and engineering methods, and such other appropriate provisions.

The conditions of the proposed general permit were developed to comply with the technology-based standards of the CWA. The draft general permit includes a SWMP requirement that includes MCMs utilizing a series of BMPs, rather than numeric effluent limitations, to address the minimization of pollutants in stormwater discharges to waters of the U.S. The Federal Phase II regulations define a small MS4 SWMP as a program comprising of at least six MCMs that collectively are expected to result in significant reductions of pollutants discharged into receiving water bodies. Implementation of the MEP standard will typically require the development and implementation of BMPs and the achievement of measurable goals to satisfy each of the six MCMs. TCEQ considers that the requirements of the draft general permit, if properly implemented, will meet the MEP standard required in the federal rules at 40 CFR § 122.34.

A statement is continued in the permit that indicates that the BMPs included in the SWMP constitute effluent limitations for the purposes of compliance with 30 TAC Chapter 319, Subchapter B.

The proposed general permit provides for development of an optional 7<sup>th</sup> MCM that would authorize a small MS4 to discharge stormwater runoff from construction activities disturbing one or more acres where it is the operator. This provision allows the small MS4 the option of separate coverage for these construction activities under TPDES general permit TXR040000 rather than the CGP, TXR150000. Discharges for stormwater runoff from construction support activities including concrete batch plant, asphalt batch plants, equipment staging areas, material storage yards, material borrow areas, and excavated material disposal areas may be authorized under the general permit. The following proposed limitations and monitoring frequencies are applicable to stormwater discharges from concrete batch plants authorized as a support activity at regulated construction sites:

# **Table 1: Benchmark Monitoring for Concrete Batch plants**

Benchmark Parameters	Benchmark Value	Sampling Frequency	Sample Type
Oil and Grease	15 mg/L	1/Quarter	Grab
Total Suspended Solids	50 mg/L	1/Quarter	Grab
рН	6.0-9.0 S.U.	1/Quarter	Grab
Total Iron	1.3 mg/L	1/Quarter	Grab

# XI. Water Quality-Based Requirements

The Texas Surface Water Quality Standards (TSWQS) found at 30 TAC Chapter 307 state that "surface waters will not be toxic to man, or to terrestrial or aquatic life." The methodology outlined in the "*Procedures to Implement the Texas Surface Water Quality Standards*" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any waste which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional conditions are included in TPDES permits, which may include discharge limitations. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional waterquality-based controls.

As previously stated, TPDES stormwater permits do not typically contain waterquality-based effluent limits (WQBELs). As stated in 30 TAC § 307.8(e), controls on the quality of permitted stormwater discharges are largely based on implementing BMPs and/or technology-based limits in combination with instream monitoring to assess standards attainment and to determine whether additional controls on stormwater are needed. Also, according to EPA rules at 40 CFR § 122.34(a), narrative effluent limitations requiring implementation of BMPs are generally the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the MEP) and to protect water quality for small MS4s. It was preliminarily determined that where permit requirements are properly implemented no significant degradation is expected and existing uses will be maintained and protected.

### XII. Monitoring

If the small MS4 discharges stormwater from a construction project authorized under this general permit that includes a supporting concrete batch plant, compliance monitoring is required. Discharges from the batch plant must be sampled at a minimum frequency of once per quarter (1/quarter).

The MS4 operator may additionally sample discharges from the small MS4 in order to assess the effectiveness of stormwater MCMs, measure the effectiveness of BMPs, to detect illicit discharges to the small MS4, or for other similar reasons.

The permittee may also be required to identify sources of pollutant(s) of concern where the small MS4 discharges directly to a water body that is impaired for a pollutant present in the discharge. Examples of pollutants of concern that may be present in stormwater discharges are bacteria and sediment.

# XIII. Procedures for Final Decision

The MOA between EPA and TCEQ provides that EPA has no more than 90 days to comment, object, or make recommendations to the draft general permit before it is proposed for consideration by the Commissioners of the TCEQ. According to 30 TAC Chapter 205, when the initial draft general permit is submitted for public comment prior to being proposed to the Commission of the TCEQ, notice must be published, at a minimum, in at least one newspaper of statewide or regional circulation and the *Texas Register*. The commission may also publish notice in additional newspapers of statewide or regional circulation. Mailed notice must also be provided to the following:

- 1. The county judge of the county or counties where the discharges under the general permit are located;
- 2. If applicable, state and federal agencies whose notice is required in 40 CFR, §124.10(c);
- 3. Persons on a relevant mailing list kept under 30 TAC § 39.407, relating to Mailing Lists; and
- 4. Any other person the executive director or chief clerk may elect to include.

After notice of the general permit is published in the *Texas Register* and a newspaper in statewide or regional circulation, there will be a 30-day public comment period to allow the public to provide comment on the proposed general permit.

Any person, agency, or association may request a public meeting on the proposed general permit before the end of the public comment period. A public comment meeting will be held if the executive director determines, on the basis of requests that a significant degree of public interest in the draft general permit exists. A public meeting is for the purpose of receiving public comment and is not a contested case proceeding under the Administrative Procedure Act.

If the executive director decides to hold a public meeting, notice of the date, time, and place of the meeting will be published in the *Texas Register* a minimum of 30 days prior to the meeting, as required by commission rules. The public notice for the draft general permit and for the public meeting(s) may be combined. The public comment is automatically extended until the conclusion of all public meetings on the draft general permit. The executive director will prepare a response to all significant public comments on the draft general permit raised during the public comment period. The proposed general permit will then be filed with the commission to consider issuance of the permit. The executive director's response to public comment will be made available to the public and filed with the chief clerk at least ten days before the commission acts on the proposed general permit, per commission rules.

TCEQs commissioners will consider issuance of the general permit at a regularly scheduled Commission Agenda. If issued, notice of the re-issued general permit will be published in the *Texas Register*. For additional information about this general permit, contact the Stormwater Team at (512) 239-4671.

#### XIV. Administrative Record

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. Code of Federal Regulations (CFR) and Federal Register (FR) Citations:

40 CFR Chapter 122

*Federal Register* dated February 17, 1998 (Volume 63, No. 31, Pages 7858-2906)

*Federal Register* dated December 8, 1999 (Volume 64, No. 235, Pages 68722-68851)

*Federal Register* dated October 22, 2015 (Volume 80, No. 204, Pages 64064-64158)

*Federal Register* dated December 9, 2016 (Volume 81, No. 237, Pages 89320-89352)

B. Letters/Memoranda/Records of Communication:

Memorandum from the U.S. EPA (Hanlon) dated April 16, 2004 from, "Implementing the Partial Remand of the Stormwater Phase II Regulations Regarding Notices of Intent & NPDES General Permitting for Phase II MS4s."

Stakeholder comments provided to the TCEQ in March 2016 and April 2016.

Memo from the Water Quality Standards Team of the Water Quality Assessment Section of the TCEQ.

Comment letters received during the initial public notice period.

EPA comment letters on December 4, 2017, and July 31, 2018.

Conference calls and emails between EPA and TCEQ on December 14, 2017; January 9; March 14, July 25 and July 30, 2018.

C. Miscellaneous:

MS4 Permit Improvement Guide, U.S. EPA, Office of Water. Office of Wastewater Management, Water Permits Division, April 2010 (EPA 833-R-10-001).

Compendium of MS4 Permitting Approaches, U.S. EPA, Office of Wastewater Management, Water Permits Division, November 2016.

U.S. Environmental Protection Agency's Fact Sheet No. 2.0, "Stormwater Phase II Final Rule - Small MS4 Stormwater Program Overview," January 2000 (EPA 833-F-00-002).

U.S. Environmental Protection Agency's Fact Sheet No. 2.1, "Stormwater Phase II Final Rule – Who's Covered? Designation and Waivers of Regulated Small MS4s," January 2000 (EPA 833-F-00-003).

U.S. Environmental Protection Agency's Fact Sheet No. 2.2, "Stormwater Phase II Final Rule - Urbanized Area - Definition and Description," December 1999 (EPA 833-F-00-004).

The Clean Water Act, 33 U.S.C. Chapter 26.

Quality Criteria for Water (1986), EPA 440/5 86 001, 5/1/86.

The State of Texas Water Quality Inventory, 13th Edition, Publication No. SFR-50, Texas Natural Resource Conservation Commission, December 1996.

Texas Surface Water Quality Standards, 30 TAC Sections 307.1-307.10 (21 *TexReg* 9765, 4/30/97).

*Procedures to Implement the Texas Surface Water Quality Standards,* Texas Commission on Environmental Quality, January 2003.

30 TAC Chapters 39, 205, 213, 281, 311, 305, 307, 309, 319, 321, and 331