

# Texas Pollutant Discharge Elimination System (TPDES) Permitting Municipal Separate Storm Sewer Systems (MS4s) Updates

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Hanne Lehman Nielsen  
Rebecca L. Villalba  
Stormwater Team



# Municipal Separate Storm Sewer Systems (MS4)



An MS4 is a publicly owned or operated stormwater drainage system designed to collect and convey stormwater



# Which MS4s are Regulated?

- Medium and Large MS4s (“Phase I”)
  - Individual TPDES Permits
- Small MS4s in Urbanized Areas (“Phase II”)
  - TCEQ Small MS4 General Permit – TXR040000
- Combined Phase I and Phase II MS4s
  - Individual MS4 Permit for Texas Department of Transportation – WQ0005011000



# Phase II MS4 General Permit, TXR04000

- Regulates stormwater discharges from publicly owned or operated “Small” MS4s located in urbanized areas (UAs)
- Population based on the 2000 and 2010 U.S.Censuses
- Renewed December 13, 2013 – 5 year permit term

	<b>General Permit 2007 Authorizations Issued</b>	<b>General Permit 2013 Applications Received</b>
<b>NOIs</b>	<b>406</b>	<b>548</b>
<b>Waivers</b>	<b>66</b>	<b>79</b>
<b>Total</b>	<b>472</b>	<b>617</b>

*\*7 have not renewed yet*



# Phase II MS4 General Permit

- Tiered Permitting Approach - based on population in the UA
  - Level 1 - Up to 10,000
  - Level 2 - 10,000 to 40,000
    - includes non-traditional MS4s
  - Level 3 - 40,000 to 100,000
  - Level 4 - More than 100,000
  
- Waiver option for population less than 1,000

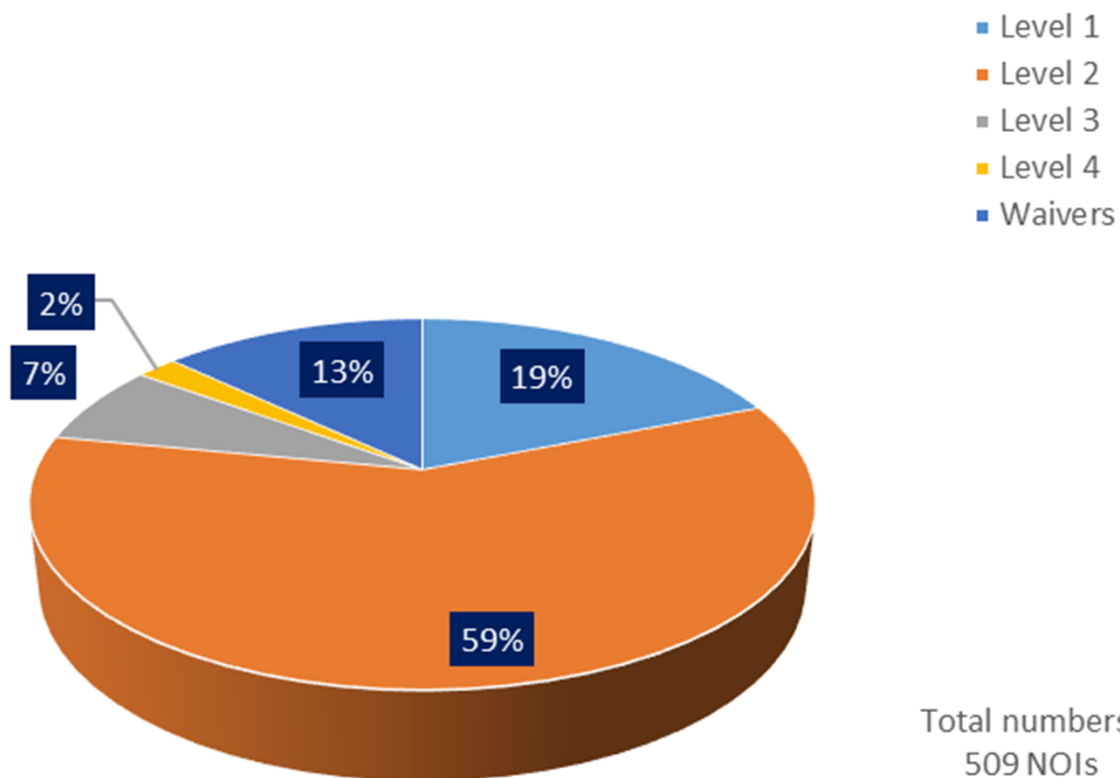
*\*Based on the 2000 and 2010 U.S.Censuses*



# Phase II MS4s

## Active Authorizations

Level	Active Authorizations
1	110
2	345
3	43
4	11



Total numbers:  
509 NOIs  
78 Waivers

# Requirements of Phase II MS4s

- Develop and Implement a Stormwater Management Program (SWMP)
  - Develop an implementation schedule
  - Implement in yearly intervals over the five year permit term
  - Must be fully implemented at the end of the five year permit term
- Coalitions
  - Develop, implement, and share same SWMP
  - Usually share a boundary or watershed
  - Each MS4 is responsible for its own compliance
  - Agreements with clear delineation of responsibilities



# Requirements of Phase II MS4s

## ➤ Contents of a SWMP

- Six Minimum Control Measures (MCMs)
  - Operators must address to reduce pollutants from the MS4 to the Maximum Extent Practicable (MEP)
- List of best management practices (BMPs)
- Measurable goals
  - including frequency, month, and year
- Schedule for implementation





# Requirements of Phase II MS4s

- Minimum Control Measures (MCMs)
  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
  6. Industrial Stormwater Sources (*Level 4 only*)
  7. *Optional* MCM for Construction done by the Permittee (MS4)
- Additional requirements for discharges into impaired waterbodies



# Impaired Water Bodies

- Additional Permit Requirements
  - Category 5 - CWA 303(d) for stream segment, no TMDL
  - Category 4 - Not on CWA 303(d), *with* watershed TMDL

## *Texas Integrated Report Index of Water Quality Impairments*

2012 Texas Integrated Report Index of Water Quality Impairments

**SegID: 0806A**      **Fosdic Lake (unclassified water body)**  
From Fosdic Lake Dam to the reservoir headwaters in Oakland Lake Park in Tarrant County

<u>Parameter(s)</u>	<u>Category</u>	<u>Carryforward</u>
PCBs in edible tissue		
0806A_01      Entire lake	4a	Yes

**SegID: 0806B**      **Echo Lake (unclassified water body)**  
From Echo Lake Dam to the reservoirs headwaters in Tarrant County

<u>Parameter(s)</u>	<u>Category</u>	<u>Carryforward</u>
PCBs in edible tissue		
0806B_01      Entire lake	4a	Yes

**SegID: 0806E**      **Sycamore Creek (unclassified water body)**  
Five mile stretch of Sycamore Creek running upstream from confluence with the W. Fork of Trinity River to confluence with Echo Lake Tributary in Fort Worth.

<u>Parameter(s)</u>	<u>Category</u>	<u>Carryforward</u>
<b>bacteria</b>		
0806E_01      Five mile stretch of Sycamore Creek running upstream from confluence with the W. Fork of Trinity River to confluence with Echo Lake Tributary in Fort Worth	5b	No



# Requirements of Phase II MS4s

## ➤ Annual Report

- Due 90 days after *reporting* year
- Flexibility selecting reporting year
  - Fiscal year, calendar year, or permit year
- Reporting year can not change during the permit term



# Phase II Annual Reports

- Submit the original report to the TCEQ Stormwater Team (MC 148)
- Submit a copy of the report to the appropriate TCEQ regional office
  - Specify in the report cover letter that the TCEQ Regional Office has been sent a copy of the report
- Retain a copy of the report on site
- Annual Report template (Form 20561) available:  
<http://www.tceq.texas.gov/assistance/water/sw-ms4.html>
- **Always** use the most recent template



# Phase II MS4 Notice of Change

- Notice of change (NOC)
  - Changes to SWMP
  - Form: TCEQ – 20392
  - Submit separately from the Annual Report
- NOC is needed to:
  - Replace an infeasible BMP with an alternative BMP
  - All other changes specified in permit
- NOC is not needed for
  - Adding BMPs or replacing a BMP with a similar BMP
  - Non-substantive changes
  - Adding or subtracting land



# New NPDES Rules – Phase II MS4 Remand Rule

## *40 CFR §§122.33 and 122.34*

- Phase II MS4 Remand Rule – Published in Fed. Reg. December 9, 2016 with an effective date of Jan. 9, 2017
- The regulations are revised to ensure that:
  - States determine the adequacy of BMPs and permit requirements
  - States provide public notice and opportunity for the public to request a public hearing



# New NPDES Rules – Phase II MS4 Remand Rule

## *40 CFR §§122.33 and 122.34*

- This is a procedural rule – no substantive changes are made to the Phase II MS4 requirements
- Includes two options for states to administer their Phase II MS4 programs
  - Option 1: Comprehensive general permit approach
    - The general permit needs to include all requirements necessary to meet the MS4 permit standard “to reduce pollutants to the maximum extent practicable” (MEP).
  - Option 2: Two-step General Permit
    - The general permit includes some requirements for all MS4s
    - The state established additional requirements and BMPs for individual MS4s (this is in the SWMPs).



# New NPDES Rules – Phase II MS4 Remand Rule

## *40 CFR §§122.33 and 122.34*

- All permits must be written with terms that are “clear, specific, and measurable”
- The general permits need to use “mandatory” terms and cannot use terms such as:
  - as practicable, should, encouraged, etc.
  - *if feasible*, cannot be used unless it is defined
- The permit language needs to be worded in a manner that will help assess compliance and track whether measurable goals have been met by the MS4.
- EPA published examples of provisions from general permits across the country

<https://www.epa.gov/npdes/stormwater-discharges-municipal-sources#resources>





# New NPDES Rules – Phase II MS4 Remand Rule

## *40 CFR §§122.33 and 122.34*

### Clear

- Certainty in specific actions and requirements
- Avoid words such as “if practicable”, “as necessary”, “should”

### Specific

- Provide level of detail in requirements that portray level of effort(s) needed from MS4 to comply

### Measurable

- Requirement needs to be articulated in a manner to assess compliance in a straightforward way



# New NPDES Rules – Phase II MS4 Remand Rule

## *40 CFR §§122.33 and 122.34*

- Differences between Option 1 – comprehensive general permit and Option 2 – two step general permit

	Option 1	Option 2
Requirements in general permit	Specific - BMPs and frequencies	General – not specific
SWMP	Plan to implement general permit	Specific - BMPs and frequencies
SWMP reviewed by state	No	Yes
SWMP enforceable	No	Yes
SWMP – clear, specific, measurable language	No	Yes
Public notice requirements	<ul style="list-style-type: none"><li>• General permit</li></ul>	<ul style="list-style-type: none"><li>• General permit</li><li>• Each MS4 NOI/SWMP</li><li>• Possibly on NOCs</li></ul>



# New Federal Rules – Electronic Reporting Rule

## *40 CFR Part 127*

- Electronic Reporting Rule – effective Dec. 21, 2015
  - Requires electronic submittal of applications and reports
    - Phase 1 of Rule: DMRs need to be submitted electronically by Dec. 21, 2016
    - Phase 2 of Rule: General permit applications (NOIs) and MS4 reports need to be submitted electronically by Dec. 21, 2020



# New Federal Rules – Electronic Reporting Rule

## *40 CFR Part 127*

- Electronic Reporting Rule – effective Dec. 21, 2015
  - Appendix A of 40 CFR 127 – includes list of elements that need to be reported electronically
  - Waiver option is available from eReporting (permanent and temporary)
    - Religious beliefs
    - No internet access
    - Training needed



# Small MS4 General Permit, TXR04000 2018 Renewal

- Internal TCEQ input – Feb. 2017
- Stakeholder Meeting – March 21, 2017
  - Comment period ended – April 4, 2017
- Development of draft permit – April/June 2017
- EPA Review – Fall of 2017
- EPA Objection Letter – Dec.4, 2017
- EPA and TCEQ discussions – Ongoing
- Currently behind schedule – approx. 2 - 3 months



# Summary of Proposed Changes to Existing Permit *Consistency with Federal Rules*

## ➤ Electronic Reporting Rule

- Add permit language to include eReporting rule
- EPA will develop tools to accept applications and reports from small MS4s
- TCEQ participates in EPA – State MS4 Technical workgroup to discuss integrating the eReporting rule into the MS4 programs

## ➤ Phase II MS4 Remand Rule

- Modify permit language to be clear, specific and measurable
- Avoid words: if practicable, as necessary, should, encouraged to
- Use mandatory words: must and shall



# Summary of Proposed Changes to Existing Permit

## *Examples of clear, specific, and measurable*

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

If feasible, ~~consider using~~ use public input (for example, the opportunity for public comment, or public meetings) in the implementation of the program

### ➤ MCM 2. IDDE

Inspections – The permittee shall conduct inspections ~~as determined appropriate~~, in response to complaints, and shall conduct follow-up inspections ~~as needed~~ to ensure that corrective measures have been implemented by the responsible party.

The permittee shall develop written procedures describing the basis for conducting inspections in response to complaints



# Summary of Proposed Changes to Existing Permit

## ➤ Part II. Categories of Regulated MS4s

- Acquiring new areas
  - Within 90 days have a plan for implementing the SWMP in new areas
  - Implement program in new areas as expeditiously as practicable but no less than three years
  - Submit an Notice of Change if the new area includes an impaired water body

## ➤ Part II. Impaired water bodies and TMDL Requirements

- Clarified requirement to check if a water body within the MS4s permitted area has been added to the latest 305(b)/303(d) list.
- Newly impaired waterbodies must be addressed in the SWMP within 2 years.





# Summary of Proposed Changes to Existing Permit

- Part II. Stormwater Management Program
  - Review the SMWP once a year in conjunction with completion of the annual report.
- MCM 1
  - Publish SWMP and annual report on MS4s public website – if MS4 has one

## For Level 4 MS4s only:

- MCM 2. Illicit Discharge Detection and Elimination
  - Add a program to control the discharge of floatables into the MS4
- MCM 5. Pollution Prevention and Good Housekeeping for Municipal Operations
  - Add a program to evaluate new and existing flood management projects for their water quality impact



# Summary of EPA Objections on Draft Permit

- The permit appears to include terms that are not clear, specific, and measurable
  - Comments mostly related to Impaired Water Bodies and TMDL Requirement

## Examples:

- Benchmark should be defined in definition section
- “Appropriate” and “as applicable” should be avoided (terms were used as: “appropriate BMPs”)
- Questioning requirements for discharges to Edwards Aquifer



# Summary of EPA Objections on Draft Permit

- EPA questions whether later modifications to the SWMP would require public notice
- Examples:
  - If a water body becomes impaired during the permit term, and new BMPs are needed and the SWMP updated – public notice might be required
  - BMPs for POCs are evaluated annually, and if changes in BMPs are needed – public notice might be required
- EPA and TCEQ had multiple conference calls during Dec, 2017 thru March, 2018 to resolve EPA comments



# Phase I MS4s

- Medium and Large MS4s
  - Municipal population 100,000+ (1990 U.S.Census)
  - Includes public entities in the UA
    - Transportation authorities, universities, counties, districts, etc.
  - Universe: 22 individual TPDES permits
    - Includes 50 permittees due to coalitions

*\*No new permits issued*



# Requirements of Phase I MS4s

- Develop a SWMP to address MCMs in permits
  - Public Education and Outreach/Public Involvement and Participation
  - Pollution Prevention/Good Housekeeping for Municipal Operations
  - MS4 Maintenance Activities
  - Illicit Discharge Detection and Elimination
  - Construction Site Runoff
  - Post-Construction Control Measures
  - Industrial & High Risk Runoff



# Requirements of Phase I MS4s

- Monitoring Requirement Options
  1. Representative Storm Events
  2. Representative Rapid Bioassessment or
  3. Watershed Monitoring
    - Regional Wet Weather Characterization Program
    - NCTCOG's new program approved on June 30, 2017



# Requirements of Phase I MS4s

- Monitoring of Floatables
  - Often required in two locations at a frequency two times per year
  - Report the amount collected
- Submit Annual Reports
  - TCEQ reviews and provides feedback



# Phase I MS4s Permit Renewals

- EPA Review of the Renewals from 2011
  - Requiring similar requirements as in the Phase II MS4 General Permit
    - Priority areas
    - MS4 maps
    - Impaired waterbodies
  - Requesting to see inspection or audit reports completed by TCEQ





# Phase I MS4 Permit Renewals

## ➤ Renewals - 2016

- All permits revised to address comments made by EPA on MS4 permits from 2011
- Measurable goals required for MCMs
- Provision from existing permits are continued
- E-Reporting Rule provisions for DMRs and annual reports
- No other major changes
- Use application form TCEQ-20214 (no changes)
- Attachment 4 – will be requested by permit writer
- Senate Bill 709 – legislative notice requirement



# Phase I MS4s Permit Renewals

## ➤ Examples of EPA Objections of the Renewals from 2016:

- MCM 3, Illicit Discharge Detection and Elimination
  - Include inspection procedures, frequencies and methods for detecting and eliminating illicit discharges
  - Have a plan to address illicit discharges in priority areas
- MCM 6, Construction Site Stormwater Runoff
  - Include procedures for site plan review of sediment and erosion plans



# Phase I MS4s Permit Renewals

- EPA Objections of the Renewals from 2016 include:
  - MCM 8, Monitoring, Evaluation and Reporting
    - Industrial High-Risk Runoff Monitoring – include an inspection program of activities at facilities, risk levels, and inspection schedules



# TPDES Stormwater Program Contacts

- Water Quality Division
  - Stormwater Team
  - Rebecca L. Villalba, Team Leader
    - Lindsay Garza, Work Leader
    - Hanne Lehman Nielsen
    - Dan Siebeneicher
    - Gordon Cooper
    - Kent Trede
- Austin Office: (512) 239-4671



# Contact Information

- Small Business and Local Government Assistance (SBLGA)  
(800) 447-2827  
TexasenviroHelp@tceq.texas.gov  
<http://www.tceq.texas.gov/assistance>
- Permitting Information (Technical)  
(512) 239-4671  
swgp@tceq.texas.gov  
<https://www.tceq.texas.gov/permitting/stormwater>

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