

Municipal Separate Storm Sewer System (MS4) Program

Water Permits Division

Fall 2019



What is an MS4?

- ▶ Municipal Separate Storm Sewer System
- ▶ Describes the infrastructure used to transport storm water runoff within a city, town, parish or other public entity
- ▶ Traditional MS4s- cities, towns, and unincorporated areas in parishes that are heavily populated
- ▶ Non-traditional MS4s- military bases, transportation agencies, universities, airports
- ▶ Qualifications
 - ▶ Urbanized areas (UA)- core cities
 - ▶ Outside UA- Areas with population 10,000- 50,000- Phase II
 - ▶ Over 50,000- Phase I
 - ▶ LDEQ/EPA designation
 - ▶ Can be voluntary



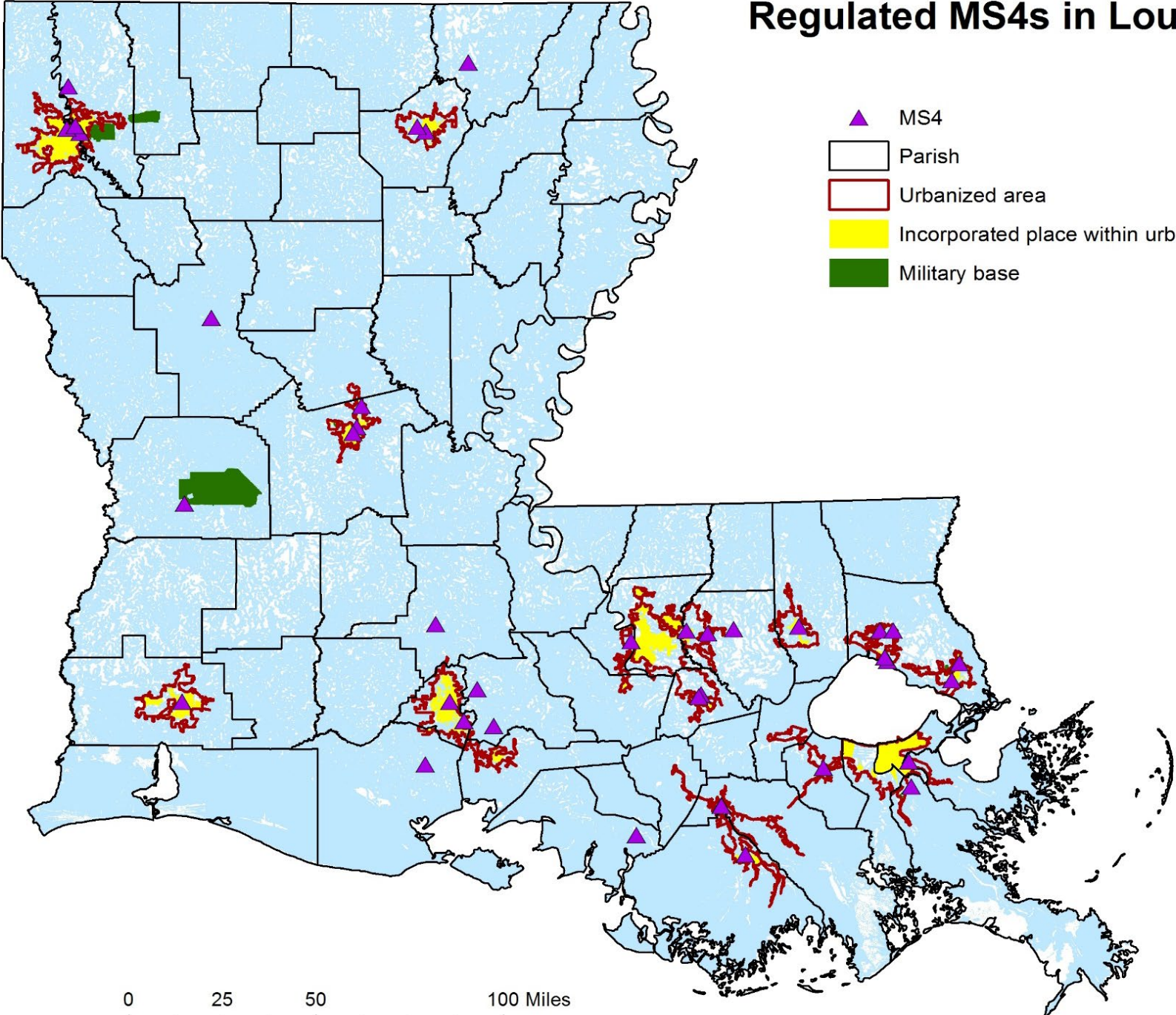
MS4 Permit Info

- ▶ Authorizes discharges of storm water from regulated MS4s
- ▶ LAR040000- Discharges from MS4s
 - ▶ Large MS4s Phase I- New Orleans, Jefferson Parish, Baton Rouge, Shreveport
 - ▶ Small MS4s Phase II- currently 47 permitted
- ▶ Required reissuance every 5 years after permit renewal by LDEQ
 - ▶ Storm Water Management Plan (SWMP)
 - ▶ Annual report required every year and must include updates on all BMPs found in SWMP
 - ▶ Plan must be implemented to the maximum extent practicable (MEP)



Regulated MS4s in Louisiana

- ▲ MS4
- Parish
- ▭ Urbanized area
- ▭ Incorporated place within urbanized area
- ▭ Military base



0 25 50 100 Miles



Remand Rule and 40CFR Changes

- ▶ The new rule clearly specifies that all permit requirements, either expressed in a comprehensive general permit or in the SWMPs, must be clear, specific and measurable.
- ▶ LDEQ is being more vigilant ensuring the applications are complete in accordance with the regulations.
 - ▶ Require permitting authority review of the Best Management Practices (BMPs) to be used at a particular MS4 to ensure the permittee reduces pollutants in storm water discharges to the Maximum Extent Practicable (MEP)



Permit Changes

- ▶ The revised regulations puts the burden on the director, which in this case, is LDEQ. Previously, the rules referenced the MS4 operator, which essentially allowed self-review and self-implementation on the part of the MS4 operator.
- ▶ Now, the MS4 submits the NOI and SWMP. LDEQ reviews it to determine all BMPs and measurable goals are clear, specific, and measurable AND that the maximum extent practicable (MEP) requirement is being met. MEP taken off MS4 and back on permitting authority.



MS4 Program Now

- ▶ Began sending deficiency letters in 2017 for 2016 reports
 - ▶ 60 days to reply with revisions before referred to enforcement
- ▶ Currently reviewing SWMPs
 - ▶ Occurs during the 5 year reissuance
- ▶ Permittees were notified Sept. 18, 2018 to reapply
 - ▶ Operators who were permitted more than 5 years prior to the effective date of this reissued general permit are required to have fully developed and implemented a storm water management plan (SWMP).
- ▶ No new or expanded operators this cycle (expect new or expanded regulated MS4s after the 2020 Census).



Minimum Control Measures (MCM)

- ▶ **Clear, Specific, and Measurable** for the 6 storm water control measures
 - ▶ 1. Public Education and Outreach on Storm Water Impacts
 - ▶ 2. Public Involvement/Participation
 - ▶ 3. Illicit Discharge Detection and Elimination
 - ▶ 4. Construction Site Storm Water Runoff Control
 - ▶ 5. Post Construction Storm Water Management in New Development and Redevelopment
 - ▶ 6. Pollution Prevention/Good Housekeeping for Municipal Operations



Most Common Issues SWMP

- ▶ **BMPs and goals shall be clear, specific, and measurable. Each BMP is required to have a measurable goal to quantify/confirm success. Goals shall have a numerical value associated with the action taken.**
 - ▶ **EXAMPLE:** will hand out 100 fliers to 3 local middle schools
 - ▶ Will record and investigate all calls made to the Illicit discharge hotline
- ▶ Develop map showing the location of all outfalls and the names and location of all receiving waters.
 - ▶ Maps should show LDEQ-designated water basin subsegment boundaries.
- ▶ Identify target audiences, including ever-expanding audiences for the educational programs. Also provide an explanation of the plan to inform the target audience on how to become involved.

Example of Poor Measurable Goals

ILLICIT DISCHARGE AND ELIMINATION CITY OF [REDACTED] MEASURABLE GOALS

JANUARY 1-DECEMBER 31, 2013

Revise the storm water ordinance in order to protect the environment and provide more control on enforcement of this ordinance.

JANUARY 1- DECEMBER 31, 2014

Revise the inspection forms and permit for storm water dischargers.

JANUARY 1- DECEMBER 31, 2015

Monitor the system for illicit connections with residences and businesses.

JANUARY 1- DECEMBER 31, 2016

**Monitor oil collection sites for their involvement in proper oil disposal.
Monitor tire collection sites for their involvement in proper tire disposal.**

JANUARY 1- DECEMBER 31, 2017

Revise the storm water map, and continue eliminating point sources into the storm water system.

Example of Good Measurable Goals

3.c. BMP: Storm Sewer System Map

Measurable Goal: A GIS database will be utilized to create a map of Fort Polk's MS4 system. Outfall locations and the names and locations of all receiving waters associated with the cantonment area on the installation will be included in the map. In addition, the map will contain overlays of drinking water and sanitary sewer system distribution and collection lines indicating priority areas with a higher likelihood for illicit connections. The GIS map will be created and updated by ENRMD staff based upon database and field data. Fifty percent of the MS4 GIS database will be developed and documented during year one. The remaining fifty percent will be developed and documented during year two. The GIS database will be reviewed and updated during years three through five of the permit.

3.d. BMP: Dry Weather Field Surveys

Measurable Goal: Dry weather field surveys will begin in year one and continue through each year of the permit. The core Storm Water Team will conduct and track surveys of the MS4 using a geographical zoning system during dry weather to look for illicit discharges. The team will visually inspect major outfalls for the presence of pollutants, record any information that will be useful in determining the illicit discharge, trace the source of the dry weather flow, and address the problem to eliminate the discharge. A database will be maintained for all illicit discharges that are identified and corrective actions taken to eliminate them.



Most Common Issues SWMP

- ▶ MS4 is required to track and identify contributors to the MS4 that will not be addressed as illicit discharges such as charity carwashes.
- ▶ Identify any categories of non-storm water discharges that are significant contributors of pollutants within the MS4.
- ▶ Lack of information regarding storm water ordinances and enforcement processes.
 - ▶ Illicit discharge, construction, and post construction
 - ▶ Supply ordinances or links to ordinances in your SWMP. Also, MS4s shall provide an explanation of how ordinances are enforced.



Most Common Issues SWMP

- ▶ The responsible party is not listed for each BMP or MCM
 - ▶ Official or department
- ▶ TMDLs are not addressed
- ▶ Updates to the SWMP are not included in ARs
 - ▶ Replacements and changes are allowed but they require an assessment/analysis of the change and replacement
- ▶ Changes to BMPs should be included in SWMP
 - ▶ Update in next AR but must then submit a change to the SWMP
- ▶ Make sure to consolidate all revisions and changes into SWMP as one complete document



Small MS4s with Notable SWMPs

- ▶ Iberia Parish MS4 (AI#186098; LAR041045):
 - ▶ Very detailed BMPs and goals; outlines all aspects of plan
- ▶ Lafayette Consolidated Government MS4 (AI# 108519; LAR041025):
 - ▶ Multiple Co-Permittees; very detailed BMPs and goals; Inter-governmental Vermilion River sampling team
 - ▶ Non-traditional: Airport and ULL
- ▶ City of Bossier City MS4 (AI# 107095; LAR040001):
 - ▶ Implements an Illicit Discharge Detection and Elimination Ordinance
 - ▶ Work orders and phone logs are kept for every complaint with follow-up inspections
 - ▶ On-going Project: Develop hotline for public complaints to locate and identify illicit discharges needing inspection



Common household activities such as car washing, lawn care, and automobile maintenance affect water quality through nonpoint source water pollution. Nonpoint source pollution is the largest contributor to water quality degradation in the United States. By educating citizens about the adverse effects these activities have on water quality, aquatic life, and recreational opportunities, and identifying ways citizens can reduce their impact, CoA hopes to decrease impacts to water quality associated with storm water. The Public Education and Outreach Program targets three main audiences: the general public, contractors, and municipal employees. Each group has specific activities that have different contributions to storm water quality degradation. Primary pollutants of concern which the general public may reduce are nitrogen, phosphorous, and organic enrichment. These pollutants can largely be attributed to septic systems, lawn care, pet waste management, and alterations to stream-side or littoral vegetation.

Contractor education, in conjunction with both construction programs (Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management in New Development and Redevelopment), will target sediment and other pollutants associated with construction. Finally, in conjunction with the Pollution Prevention/Good Housekeeping for Municipal Operations Program, municipal employees are educated about pollutants common to their everyday operations. Target nonpoint source education for the general public is distributed through various outlets including the CoA website, educational pamphlets, and utility staffers. Contractors receive information about storm water pollution prevention through the education programs and site development procedures, and municipal employees receive annual training,

MCM #1 - Best Management Practices

<i>Best Management Practice</i>	<i>BMP Description</i>	<i>Schedule</i>	<i>Measurable Goal and Responsible Official</i>
<p>BMP 1.1 Storm water educational materials</p>	<p>The Environmental Services page on CoA's website (www.cityofalexandria.com) is the primary method used to educate citizens on the common impacts we have to storm water quality. The website provides recommended BMPs for residents that wish to minimize their contributions to storm water through the responsible management of pet waste, yard maintenance, household hazardous waste, and vehicle maintenance. The web page also includes a hotline number, <i>First Call</i> (318-441-6231), to report suspected cases or sources of water pollution. Requests to <i>First Call</i> can also be made on CoA's website.</p>	<p>Year 1-5/ Annually review outreach content</p>	<ol style="list-style-type: none"> 1. Increase the content of educational information distributed by 5% as measured by the website traffic. 2. Add new education videos to the City of Alexandria website. 3. Distribute educational brochures to citizens via utility stuffers and at business' throughout the City of Alexandria. <p><i>BMP Responsible Official:</i> <i>Environmental Compliance Manager</i></p>

Poorly Developed SWMP

TASK	BEST MANAGEMENT PRACTICES	MEASURABLE GOALS	IMPLIMENTATION DATE
1. PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS			
<p>Implement a public education program to instruct the public on stormwater impacts and steps that can be taken to reduce pollutants to stormwater.</p>	<p>Stormwater Educational Materials Classroom Education on Stormwater Education for Commercial Activities Pollution Prevention for Businesses Education on Household Hazardous Waste</p> <p>Develop Informational Stuffers for utility bills</p>	<p>Secure Materials Prepare presentations Develop target list for presentations Conduct 1 presentation to K-1 to K-12 Conduct 1 presentation to educators Conduct 1 presentation to civic groups Conduct 1 presentation to city employees</p> <p>Develop and secure materials First mailing</p>	<p>March 10, 2004</p> <p>March 10, 2004</p>



Most Common Deficiencies in Annual Reports

- ▶ BMPs are not **clear, specific, and measurable**. Each BMP is required to have a measurable goal to quantify/confirm success.
- ▶ MS4s do not provide results of all actions taken. Results of information collected and analyzed during the reporting period should be included in the annual report to assess the success of the BMP. A summary of the provided results should be included with the corresponding BMP for each MCM (minimum control measure).
 - ▶ Often times documentation is missing



Example of Poor Measurable Goals- AR

Illicit Discharge Detection and Elimination

1) A copy of the Ordinance was delivered to car washes and garages to inform them of the stormwater regulations.

2) Local area stores were contacted about the acceptance of vehicle oils and fluids.



3) An ongoing watch by the Street Dept, Sewer Dept and Public Works to help prevent and eliminate illicit discharges.

4) Beginning at the outer edges of city limit and working in, will begin testing for fecal Coliform in order to help the water shed of the of subsegments :080401 Bayou Bartholomew and subsegment: 080904 Bayou Lafourche. See attached maps for sample sites.

Staulking Head Creek: 1) End of Tulane ST(beginning of City Limits), 2) End of Gibbs St., 3) Cahoon Ave., 4) Commerce Ave, 5) End of Peck St., 6) Lee Ave. 7) End of Short Talley, 8) Henry Ave(end of City Limits)

Tidsdale Brake: 1) Welch & MLKN, 2) End of Shady Oaks, 3) Intersection of Eden & Kammell St., 4) Kammell between George & Forrest Ave

Horse Bayou: 1) Cooper Lake & Boswell Intersection, 2) Donaldson St., 3) Guy Ave., 4) CherryRidge Rd & McCreight St., 5) Shelton Rd., 6) W Carter Ave., 7) Intersection of Country Club & Gladney Dr, 8) Gladney Dr., 9) Intersection of Orchid & Redbud Dr., 10) Intersectio of Kay Ave. & Riis St.,

5) 6 separate areas located within the City had sewer overflow which were handled by the sewer dept and DEQ were notified.
Please see attachment.

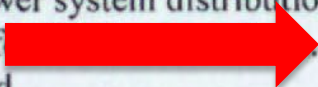
6) The updated stormwater ordinance was passed in June 2015

7) Scada system monitors the pump stations and sends alarms if high level or powerage which is monitored 24/7.

8) Designated sewer mains are cleaned monthly, along with other mains cleaned during the course of the year. Approximatley 150 miles of sewer mains cleaned in 2017

Example of Good Measurable Goals- AR


3.c. BMP: Storm Sewer System Map

2017 Results: A GIS database was utilized to create a map of Fort Polk's MS4 system. Outfall locations and the names and locations of all receiving waters associated with the cantonment area on the installation are included in the map. In addition, the map contains overlays of drinking water and sanitary sewer system distribution and collection lines indicating priority areas with a higher likelihood for  Fifty percent of the MS4 GIS database has been developed and documented.

2018 Goals: Fort Polk's Environmental and Natural Resource Management Division does not have a GIS database position available. The core stormwater team will continue to monitor outfall locations, names of receiving waters and higher likelihood for illicit connections associated within the cantonment area of the installation.

3.d. BMP: Dry Weather Field Surveys

2017 Results: The core Storm Water Team conducted quarterly dry weather field screening surveys of the MS4 using a geographical zoning system during dry weather to look for illicit discharges. The team visually inspects major outfalls for the presence of pollutants, records any information that will be useful in determining the illicit discharge, trace the source of the dry weather flow, and address the problem to eliminate the discharge. A database has been created for all illicit discharges that are identified and corrective actions taken to eliminate them.

Dry Weather Field Screening: 	1st Qtr	Feb 13, 2017
	2nd Qtr	May 18, 2017
	3rd Qtr	Aug, 21, 2017
	4th Qtr	Nov 16, 2017



Most Common Deficiencies in Annual Reports

- ▶ The permit requires a summary of storm water activities the MS4 plans to undertake during the next reporting period. The annual report needs to include the city's plans in the next reporting year for each BMP.
- ▶ There is a lack of details in reporting the frequency of actions taken by the city. Need dates activities occurred or dates of planned activities.
- ▶ Responsible party for each of the BMPs: MS4s shall provide details of the responsible party for each BMP. Either individuals or a department are acceptable. For example, instead of "City of Mamou", LDEQ recommends "City of Mamou Public Works Department".

Most Common Deficiencies in Annual Reports

- ▶ BMPs/measurable goals included in the SWMP are not mentioned in the annual report.
 - ▶ Annual reports must correspond directly to the SWMP.
 - ▶ If a BMP is replaced, the MS4 shall provide a description of the replacement BMPs and update the SWMP. Are these BMPs ineffective or unfeasible? Identify why the BMP is ineffective or unfeasible, expectations of the effectiveness of the replacement BMP, and an analysis of why the replacement BMP is expected to achieve the goals of the replaced BMP.
 - ▶ Changes adding components to the annual report are acceptable; however, these changes must be added to the updated SWMP.



Review vs Audit

- ▶ Annual Report reviews are done in office by permit writing staff
 - ▶ Done every year for each permittee
- ▶ Audits are carried out by an inspector who visits the physical location of the MS4
 - ▶ Important to keep good records of documentation and files
- ▶ LDEQ Surveillance Division Inspects MS4s at least once every 5 years
 - ▶ Surveillance Division generally checks documentation for compliance, does not evaluate entire program



MCM 1- Public Education and Outreach

- ▶ Identify target audience
 - ▶ School aged children, contractors, certain businesses
- ▶ Identify the number of those impacted
 - ▶ Students at school
 - ▶ Number of mail outs
- ▶ Identify outreach strategy including mechanisms used
 - ▶ Fliers, pamphlets, media etc.
- ▶ Include documentation of flyers and handouts
 - ▶ Every handout is not necessary but a good sampling of materials is okay



Poorly Developed Educational BMP

b) Educational	Distribute material through media and possible arrange for booths and/or other distribution points at local community fairs and meetings	1) [REDACTED] Keep America Beautiful Campaign established various Public awareness volunteer groups to assist with the city's beautification projects through KAB.	Complete & continue the mailing program for thorough distribution of material to citizens of Abbeville through its KAB Campaign.
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MCM 2- Public Involvement and Participation

- ▶ Specify your target audience
 - ▶ Boy/girl scouts
 - ▶ Adopt a road groups
- ▶ How is the public involved in program development
 - ▶ Simple as placing the SWMP and AR available for public review and comments before submittal to LDEQ
- ▶ Public involvement activities and who participated
 - ▶ Volunteer activities
 - ▶ Public hearings and panels



Well Developed Public Involvement BMP

BMP: Community Hotlines

Measurable Goals: Document each complaint made to First Call and retain documentation, as required, for three years, investigate 100% of complaints, and report to LDEQ, DHH, or other appropriate local, state, or federal agency as required.

2017 results: City of Alexandria received a total of 205 complaints to its Community Hotline, First Call, that were related to water pollution (9) and littering/illegal dumping issues (196). All complaints were investigated, documented, and reported as required. **See Appendix E**

Goals for 2018: City of Alexandria will continue to promote the use of First Call to encourage citizens of the City of Alexandria to report illegal dumping, littering, discharges, or any other public concerns. First Call will continue to be promoted in the City's brochures, flyers, website, and group presentations throughout the year.

Responsible Party: Delores Brewer, Director of Planning and Economic Development; Richard Williamson, Environmental Compliance Manager; and David Gill, Public Works Director



MS4 Relationship to LPDES Permits

Important components of MS4 Permit and Storm Water Management Plans (SWMP):

- ▶ **Illicit Discharge Detection and Elimination (IDDE)**
- ▶ **Construction Site and Storm Water Runoff Control**
- ▶ **Post-Construction Storm Water Management**

Permitted MS4s are partially responsible for ensuring facilities and projects within their jurisdiction have obtained the appropriate LPDES permits and are discharging in compliance with those permits



MCM 3- Illicit Discharge

- ▶ Permittees must conduct visual screening of the outfalls during dry weather and conduct field tests of selected pollutants as part of the procedures for locating priority areas-now a requirement
 - ▶ Documentation or schedule of these screenings
- ▶ Assessment of existing ordinances, policies, programs, and studies addressing storm water runoff quality for program development
- ▶ How the MS4 will inform public employees, businesses, and the public of hazards associated with illegal discharges and improper disposal of waste.
- ▶ Priority area updates
 - ▶ Any issues or problems?



MCM 4- Construction

- ▶ The number of inspections performed for the year should be included
 - ▶ Log of inspections
- ▶ An example of inspection report to ensure there is a routine procedure
- ▶ Assessment of existing ordinances, policies, programs, and studies addressing storm water runoff quality for program development



Construction Permit Info

- ▶ LAR200000- small construction permit- self implementing
 - ▶ Authorizes storm water discharges from construction activities with ground disturbance equal to or greater than one acre and less than five acres, including smaller areas that are part of a larger common plan of development or sale that cumulatively disturb at least one acre
- ▶ LAR100000- 5 acres or more- NOI and Permit required
 - ▶ Authorizes discharges of storm water from construction activities that disturb 5 acres or more of total land area, including the disturbance of less than 5 acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb 5 acres or more.
 - ▶ Coverage expired September 30, 2019
 - ▶ March 28th 2020 coverage extension for current permittees

Pollutants Commonly Discharged from Construction Sites

- ▶ Sediment (eroded or tracked soil)
- ▶ Solid and sanitary wastes
- ▶ Phosphorus (fertilizers)
- ▶ Nitrogen (fertilizers)
- ▶ Pesticides (insecticides, herbicides)
- ▶ Oil and grease
- ▶ Concrete truck washout
- ▶ Construction chemicals and debris





MCM 5- Post Construction

- ▶ Many permittees find this is the most difficult aspect of the program
- ▶ Identify implementation strategies, operation and maintenance policies, and enforcement procedures
- ▶ Assessment of existing ordinances, policies, programs, and studies addressing storm water runoff quality for program development and provision of opportunities for public participation
- ▶ How is the program tailored for your local community
 - ▶ Tree planting program/green infrastructure - Morgan City (AI# 104072)



Post Construction BMP Examples

- ▶ Structural
 - ▶ Rain gardens
 - ▶ Wet ponds
 - ▶ Grassed swales
- ▶ And non structural BMPs
 - ▶ Long term- homeowners association agreements with city on pond upkeep
 - ▶ Ordinances
- ▶ Green infrastructure/ low impact development (LID)
 - ▶ Incentives to install/ plan for it
 - ▶ Discount/credit program
 - ▶ Recognition program
- ▶ Most in it for the money- recognition may increase price of lots in neighborhood

Ordinances

- ▶ How the ordinance is implemented through enforcement procedures and actions;
- ▶ Non-traditional MS4s may not have legal authority to have ordinances, but are expected to have other regulatory mechanisms like policies, contractual requirements, or interjurisdictional agreements with a city or parish that does have an enforcement mechanism.



Ordinance BMP Example

BMP: Storm Water Ordinance

Measurable Goal: The City will review and amend the existing storm water ordinance for new development, as needed, to comply with Phase II requirements.

2017 results: In 2017 the storm water ordinance was reviewed and no changes were made.

Goals for 2018: The City will continue reviewing and amending the storm water ordinance as necessary.

Responsible Party: Delores Brewer, Director of Planning and Economic Development; Richard Williamson, Environmental Compliance Manager



MCM 6- Pollution Prevention and Good Housekeeping

- ▶ Plans should include a training component for employees
 - ▶ Include any documentation or sign in sheets
- ▶ Any interjurisdictional agreements between non-traditional MS4s (universities, DOTD) and municipalities must be included
- ▶ Any issues and/or updates with maintenance activities
 - ▶ Procedures are provided in SWMP
- ▶ See most issues with inclusion of a MSGP permit list
 - ▶ Start to keep track of it
 - ▶ EDMS search

Water Quality Impairments

Louisiana's 2016 Integrated Report

- ▶ 12 water bodies impaired due to site clearance (land development and redevelopment)
 - ▶ 4 of these are from the Sabine River Basin (East and West Anacoco Creek, Vernon Lake, Bayou Toro, Sabine River, etc)
 - ▶ 3 of these are in the Lake Pontchartrain Basin (Tchefuncte River, Tangipahoa River, Bayou Liberty, Bayou Bonfouca, Bayou Lacombe, etc.)
- ▶ 4 water bodies impaired due to construction storm water
- ▶ 2 water bodies impaired due to drainage/filling/loss of wetlands
- ▶ The final 2016 IR Report is available at:
- ▶ <https://deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=water-quality-integrated-report-305b303d>

The 2018 Louisiana Water Quality Integrated Report was submitted to EPA on 12/4/18. Until EPA approves the 2018 Report, the 2016 Report remains effective



Total Maximum Daily Loads (TMDLs)

- ▶ The MS4 must develop clear, specific, and measurable goals and BMPs in their SWMP targeting pollutants of concern within 6 months of assignment of any new WLA (waste load allocation) for specific pollutants identified as impairments attributed to discharges from regulated MS4s.
- ▶ IRC4a- TMDL with a WLA assigned to the MS4
- ▶ IRC5-Source of impairment
 - ▶ Site clearance, MS4, construction, urban, residential district, forced drainage, wet weather discharge, sanitary sewer overflow, and rural (residential areas)



TMDL Monitoring

- ▶ If you discharge to a water for which a WLA for a particular pollutant has been assigned to one or more of your MS4 outfalls, you are required to develop and implement a monitoring program.
- ▶ Must describe in your SWMP how the chosen BMPs and other selected control measures will reduce the discharge of the pollutant(s) of concern.
 - ▶ Must specifically identify control measures and BMPs that will collectively control the discharge of the pollutants of concern
- ▶ Progress on these BMPs should be reported in annual reports.

TMDL Assignment Procedures

- ▶ The integrated report contains links for each subsegment impairment
- ▶ Search within the document for MS4 name
 - ▶ WLA must be attributed to MS4
 - ▶ Adopt WLAs as benchmark goals

Table 4-6. Fecal coliform bacteria WLAs for the MS4s in the Terrebonne Basin

Subsegment	Subsegment name	NPDES permit number	Authority	Season	MS4 WLA (1×10^3 cfu/day)
120301	Bayou Terrebonne	LAR041011	Thibodaux, City of	Summer	1.15
				Winter	2.34
120301	Bayou Terrebonne	LAR041023	Terrebonne Parish	Summer	142.68
				Winter	288.81
120503	Bayou Petit Caillou	LAR041023	Terrebonne Parish	Year round	0.18
120504	Bayou Petit Caillou	LAR041023	Terrebonne Parish	Year round	0.38
120507	Bayou Chauvin	LAR041023	Terrebonne Parish	Summer	24.04
				Winter	21.52
120602	Bayou Terrebonne	LAR041023	Terrebonne Parish	Year round	0.05
120605	Bayou Pointe au Chien	LAR041023	Terrebonne Parish	Summer	0.95
				Winter	0.63
120707	Lake Boudreaux	LAR041023	Terrebonne Parish	Year round	0.00

SAVE *the* DATE

October 23-24, 2019 Baton Rouge, *Louisiana*



Downtown Hotels Courtyard • Hilton • Hotel Indigo • Holiday Inn • Hampton Inn



For additional information, please contact
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Please stay tuned to the LDEQ website for conference registration information.



2019 LDEQ MUNICIPAL STORM SEWER SYSTEMS (MS4) CONFERENCE

The LDEQ will be hosting a two-day conference on Municipal Storm Sewer Systems (MS4).

Everyone is welcome and registration is free!

Proposed presentation topics:

- Regulatory & Permitting Requirements
- Compliance Issues
- TMDL Overview & Modeling
- Notable MS4 Programs

- ▶ Registration- LDEQ website- water- permits- LPDES permit information- top of page
- ▶ <https://www.deq.louisiana.gov/page/2019-ldeq-ms4-conference>

Questions?

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