St. Tammany Parish Stormwater Management Plan

2013

PERMIT # LAR041024
AGENCY INTEREST # 108405

St Tammany Parish
Stormwater Management Plan

November 2013

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Acronyms

BMPs	Best Management Practices
CWA	Clean Water Act
EPA	U.S. Environmental Protection Agency
LDEQ	Louisiana Department of Environmental Quality
LPDES	Louisiana Pollutant Discharge Elimination System
MCM	Minimum Control Measures
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
SPCC	Spill Prevention, Control, and Countermeasures
STP	St. Tammany Parish
SWMP	Stormwater Management Plan
UA	Urbanized Areas

St. Tammany Parish Stormwater 2014 Annual Report & Stormwater Management Plan

Certification Statement

PERMIT # LAR041024
AGENCY INTEREST # 108405

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Patricia P. Brister

Title: St. Tammany Parish President

Signature: _____ Date: _____

1.0 Introduction

Polluted stormwater runoff is often transported to municipal separate storm sewer systems (MS4s) and ultimately discharged into local rivers and bayous without treatment. In order to improve the Nation's waterways, the Unite States Environmental Protection Agency (EPA) has set up the Stormwater Phase II Rule that establishes an MS4 stormwater management program that is intended to reduce the quantity of pollutants that stormwater picks up and carries into storm sewer systems during storm events. Pollutants that are deposited into nearby waterways through MS4 discharges can impair the waterways, thereby discouraging recreational use of the resource, contaminating drinking water supplies, and interfering with the habitat for fish, other aquatic organisms, and wildlife.

St. Tammany Parish (Parish) operates a number of open gravity flow ditches that collect and route stormwater into main conveyance systems that discharge the stormwater to eleven nearby waterways. The Parish is a Regulated Small Municipal Storm Sewer System (MS4) operating under General Permit # LAR041024, Agency Interest # 108405 with the Louisiana Department of Environmental Quality (LDEQ). A copy of this document is located in Appendix A. This section presents the background of the LPDES General Permit and a brief account of the Parish history.

1.1 Permit Background

The Stormwater Phase II Rule extends coverage of the NPDES stormwater program to certain small MS4s. A small MS4 is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all small MS4s located in "urbanized areas" (UAs) as defined by the Bureau of the Census, and on a case by case basis those small MS4s located outside of UAs that the NPDES permitting authority designates. Appendix B contains the major UAs located within St. Tammany Parish.

Stormwater discharges from the St. Tammany Parish are regulated by EPA through the state of Louisiana under the Louisiana Pollutant Discharge Elimination System (LPDES) Stormwater Program. The permit requires that the Parish prepare and implement a Stormwater Management Plan for the purpose of implementing public education/involvement and best management practices (BMPs). The intent of this Plan is to establish and implement a Stormwater Management Program and to select and employ the appropriate measures to prevent or control the discharge of pollutants in stormwater runoff.

Within five years following initial authorization under the permit, the Program must be developed, implemented, and enforced as documented in the Plan. The Program is designed to reduce the discharge of pollutants from the St. Tammany small municipal separate storm sewer system to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Louisiana Environmental Quality Act.

Operators of regulated small MS4s are required to design their programs to:

- Reduce the discharge of pollutants to the maximum extent practicable (MEP);
- Protect water quality; and
- Satisfy the appropriate water quality requirements of the Clean Water Act (CWA).

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 minimum control measures. A summary of the established and projected measurable goals for the Parish are in included in Appendix A.

1.1.1 Six Minimum Control Measures

Development of the Stormwater Management Program must involve the 6 Minimum Control Measures (MCM):

1. Public Education and Outreach on Stormwater Impacts

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.

2. Public Involvement/Participation

Comply with State and local public notice requirements when implementing a public involvement/participation program.

3. Illicit Discharge Detection and Elimination

Implement a program plan to detect and eliminate illicit discharges to the storm sewer system (including development of a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

4. Construction Site Stormwater Runoff Control.

Enforce program to reduce pollutants in stormwater runoff to MS4 from construction activities disturbing greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Parish small MS4. The Parish must also enforce an ordinance that controls construction site erosion, sediment and waste control requirements, site plan water quality impact review requirements, and public review and site inspection procedures.

5. Post-Construction Stormwater Management in New Development and Redevelopment

Execute a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Parish small MS4. The program must ensure that controls

are in place that would prevent or minimize water quality impacts; including enforcement of ordinances.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

Implement an operation and maintenance program that includes training and pollution prevention of municipal operations.

1.2 St. Tammany Parish History

St. Tammany Parish started as a French settlement, but became apart of the United States in the 1700's and in 1810 by proclamation a parish. The completion of the Lake Pontchartrain Causeway in 1956, spanning 24 miles, made driving to and from New Orleans South Shore a forty-minute commute, as shown in the Site Location Map located in Appendix C. Because of this and Hurricane Katrina related relocations, thousands of South Shore residents have relocated to the North Shore. St. Tammany Parish is today the fastest-growing parish in Louisiana.

There are 8 incorporated communities in St. Tammany Parish: Abita Springs, Covington, Folsom, Madisonville, Mandeville, Pearl River, Slidell, and Sun. The unincorporated areas in the parish include: Alton, Bonfouca, Blond, Bush, Chinchuba, Colt, Dave, St Tammany, Florenville, Goodbee, Haaswood, Hickory, Houltonville, McClane City, North City, North Shore, Onville, Ramsay, St. Benedict, St. Joe, Talisheek and Waldheim.

The major eleven receiving waterways in St. Tammany parish are: Tchefuncte River, Bayou Chinchuba, Bayou Castine, Cane Bayou, Bayou Lacombe, East Pearl River, Pearl River, Salt Bayou, Eden Isles, North Shore Beach and Bayou Bonfouca. Detailed waterway locations are documented in the Appendix C map.

The Parish's Stormwater Management Plan is maintained at the Parish Administrative Complex by the Watershed Management staff of the Department of Engineering and is maintained and updated annually. The Plan is available onsite for review by Louisiana Department of Environmental Quality (LDEQ), U.S. Environmental Protection Agency (EPA), other appropriate environmental officials and the public.

The preparation of this document will satisfy the LPDES general permit requirements.

1.3 Stormwater Management

The St. Tammany Stormwater Management staff is responsible for advising about the technical aspects related to implementing, maintaining, and updating the Stormwater Plan. The St. Tammany Stormwater Management staff consists of Parish personnel who are collectively knowledgeable about stormwater, spill control, and waste management. The Stormwater Management staff which may consist of one or more active members is responsible for developing the Plan and for assisting management in its implementation, maintenance, and update. Specifically, the responsibilities of the Stormwater Management staff are as follows:

- To be involved with and give input to the development of the *Stormwater Management Plan* including setting appropriate measurable goals and expectations

- To identify individual responsibilities for monitoring implementation and compliance with the Stormwater Management Program

These and other responsibilities of the St. Tammany Watershed Management staff include the following:

- Provide guidance and assistance in developing, implementing, maintaining, and updating the Plan.
- Evaluate the effectiveness of the Stormwater Management Program.

Table 1-1 describes the responsibilities of the key persons involved in implementing and maintaining this Plan.

TABLE 1-1
Stormwater Management

Name	Position - Responsibility	Phone Number
Sabrina Schenk	Watershed Coordinator – Watershed/MS4 Manager	985-898-2552
Dan Bond	Watershed Specialist – Wetlands/Coastal/Field Biologist	985-898-2552
Alycia Adams	Watershed Technician – SW/Floodplain Plan Review	985-898-2552
d'Ette Smythe, Ph.D.	Regulatory Manager – Regulatory/Watershed Supervisor	985-898-2552
Jim O'Berry	Engineering Inspector – Drainage/SW /Field Investigation	985-898-2552
Paul Carroll	Drainage Engineer – Hydrology/Hydraulics Management	985-898-2552
Autumn Burke	Executive Secretary – Watershed/Drainage Staff Support	985-898-2552

1.4 Plan Revision

The St. Tammany Stormwater Management staff will evaluate and update the Plan at least annually, in order to assess the effectiveness of the Plan and confirm the selected control measures are still applicable. A major revision of the SWMP will be required in 2015 to meet the escalating regulatory requirements of the TMDL's on STP waterways. See Appendix D for TMDL Action Plan.

2.0 Minimum Control Measures

Within five years following initial authorization under the permit, a Stormwater Management Program must be developed, implemented, and enforced. This Program documented in a stormwater management plan is designed to reduce the discharge of pollutants from the St. Tammany small municipal separate storm sewer system to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Louisiana Environmental Quality Act. The stormwater management program includes the minimum control measures described in detail in the following sections.

Best Management Practices (BMPs) and measurable goals must be selected for each minimum control measure. The BMPs and measurable goals that are chosen for St. Tammany Parish are chosen due to their appropriateness for the parish and ability to meet permit requirements. Each measurable goal will include, when appropriate, the following three components:

- The activity, or BMP, to be completed;
- A schedule or date of completion; and
- A quantifiable target to measure progress toward achieving the activity or BMP

2.1 Public Education and Outreach on Stormwater Impacts

An informed community is vital for the success of a stormwater management program within the St. Tammany Parish. Knowledgeable citizens ensure greater support of stormwater management program when they are made aware of how their individual actions (proper waste disposal, sewage management, industrial and construction controls) impact the entire Parish stormwater quality and economics. The materials and outreach programs are directed toward targeted groups of commercial, residential, and institutional entities likely to have significant stormwater impacts.

To meet the permit requirements of the stormwater management program a public education program is mandatory. The public education program will distribute educational materials to the community and/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. The public education program will also inform individuals and households about the steps they can take to reduce stormwater pollution, such as ensuring proper septic tank system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil and household hazardous wastes.

2.1.1 Measurable Goals

TABLE 2-1
Public Education and Outreach on Stormwater Impacts Measurable Goals

Measurable Goals	Frequency	Start/End Date
Media – Continue to deliver various educational, promotional, or motivational messages through the parish website. http://stpgov.org	Continuous	Continuous
Homeowner Education – The Parish will dispatch building inspectors to various Homeowner Associations to educate homeowners on how to maintain onsite residential sewage systems and proper waste disposal.	Continuous	Continuous
Media - Deliver educational, promotional, or motivational messages through the governmental access channel.	Continuous	Continuous
Presentations and Workshops – Conduct workshops and provide presentations for Homebuilders Associations, Developers, and Engineers on how to reduce stormwater impacts related to construction and development projects.	Continuous	Continuous
Marina Education Outreach Project - Conduct presentation for local marina operators on the water quality and business benefits of the Clean Marina Program	Continuous	Continuous
Demonstration Projects – Conduct demonstration projects on proper BMP installation and maintenance on construction sites and demonstrations related to using the Critical Drainage Map to identify Critical/Sensitive Areas prior to development.	Continuous	Continuous
Educational Displays, Pamphlets, Booklets, etc. - Outreach materials that inform the public about stormwater pollution.	Continuous	Continuous

2.2 Public Involvement and Participation

Public participation is the key to success of a Stormwater Management Program due to citizens' ability to supply valuable and free intellectual and labor resources. Also involving the public will decrease potential legal challenges by the community since they will actively be involved in the program implementation. Also citizens involved in the stormwater program development process provide important cross-connections and relationships with other community and government programs. All public events will be effectively publicized and comply with state, and local public notice requirements.

2.2.1 Measurable Goals

TABLE 2-2
Public Involvement and Participation Measurable Goals

Measurable Goals	Frequency	Start/End Date
Adopt-A-Road Program: The St. Tammany Adopt-A-Road Program is a volunteer litter reduction and prevention campaign to remove litter from parish roadways and rights of way and improve the appearance of the Parish and water quality.	Continuous	Continuous
Litter Abatement Program: The Parish will assist the public in proper disposal of household hazardous and non-hazardous wastes by hosting an annual litter abatement program where residents can bring various wastes (paint cans, batteries, tires, etc.) to be properly disposed.	Continuous	Continuous
Household Hazardous Waste Collection Program: The St Tammany Parish Department of Environmental Services will assist the public with household hazardous waste disposal by providing a site to collect household hazardous waste annually and providing a contractor to dispose of waste properly. Annual collection days to be announced on website: http://stpgov.org	Annual	Annual

2.3 Illicit Discharge Detection and Elimination

Federal regulations define an illicit discharge as "...any discharge to an MS4 that is not composed entirely of stormwater..." with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities. Illicit discharges, Table 2-3, are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-stormwater wastes. Therefore, under this Minimum Control Measure, a plan must be developed and implemented to detect and eliminate illicit discharges to the storm sewer system (including development of a system map and informing the community about hazards associated with illegal discharges and improper disposal of waste).

TABLE 2-3
Sources of Illicit Discharges

Potential Sources of Illicit Discharges
Sanitary Wastewater
Effluent from Septic Tanks
Car Wash Wastewaters
Improper Oil Disposal
Radiator Flushing Disposal
Laundry Wastewaters
Spills from Roadway Accidents
Improper Disposal of Auto and Household Toxics

Recognizing the adverse effects illicit discharges can have on receiving waters, the final rule requires an operator of a regulated small MS4 to develop, implement and enforce an illicit discharge detection and elimination program. This program must include the following:

- A storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States that receive discharges from those outfalls;
- Through an ordinance, or other regulatory mechanism, a prohibition (to the extent allowable under State, Tribal, or local law) on non-stormwater discharges into the MS4, and appropriate enforcement procedures and actions;
- A plan to detect and address non-stormwater discharges, including illegal dumping, into the MS4;

- The education of public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste; and
- The determination of appropriate best management practices (BMPs) and measurable goals for this minimum control measure. Some program implementation approaches, BMPs (i.e., the program actions/activities), and measurable goals are suggested below.

2.3.1 Measurable Goals

TABLE 2-4
Illicit Discharge Detection and Elimination Measurable Goals

Measurable Goals	Frequency	Start/End Date
Detecting Sanitary Sewer Overflows: Annual sanitary sewer inspections of all nonexclusive franchise utility companies.	Annual	Annual
Identifying Illicit Connections: Ordinance (#2455) that requires septic tank inspections before each parish home is sold. Septic Tanks that fail inspections are then required to be removed by the owner and replaced with septic treatment systems that meet Parish regulations.	Continuous	Continuous
Identifying Illicit Connections: Ordinance that institutes building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.	Continuous	Continuous
Educational Booklets: Continue producing outreach materials that inform the public about on-site sewage maintenance. Booklet and website information presently available.	Continuous	Continuous

2.4 Construction Site Stormwater Runoff Control

Construction is a major contributor to suspended solids concentration in stormwater and can cause major erosion issues. Polluted stormwater runoff from construction sites often flows to MS4s and ultimately is discharged into local rivers and bayous. Of the pollutants listed in Table 2-5, sediment is usually the main pollutant of concern. During a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades. The resulting siltation, and the contribution of other pollutants from construction sites, can cause physical, chemical, and biological harm to the Parish receiving waters. For example, excess sediment can quickly fill the Tchefuncte and Pearl rivers and many Parish bayous, requiring dredging and destroying aquatic habitats.

TABLE 2-5
Potential Pollutants Discharged from Construction Sites

Potential Pollutants Commonly Discharged From Construction Sites
Sediment
Solid and sanitary wastes
Phosphorous (fertilizer)
Nitrogen (fertilizer)
Pesticides
Oil and grease
Concrete truck washout
Construction chemicals
Construction debris

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in stormwater runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, and discharge into the Parish MS4. The Parish is required to:

- Have an ordinance or other regulatory mechanism requiring the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites;
- Have procedures for site plan review of construction plans that consider potential water quality impacts;
- Have procedures for site inspection and enforcement of control measures;
- Have sanctions to ensure compliance (established in the ordinance or other regulatory mechanism);
- Establish procedures for the receipt and consideration of information submitted by the public; and
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

2.4.1 Measurable Goals

TABLE 2-6
Construction Site Stormwater Runoff Control Measurable Goals

Measurable Goals	Frequency	Start/End Date
Contractor Education and Training – Educate and train contractors and developers doing business in the Parish. The training shall include permits required for different types of construction, and BMPs (construction sequencing, storm drain inlet protection, oil/water separators, sediment traps, etc.) to be utilized on construction sites to control and reduce sediment and pollutant laden runoff from leaving the construction site.	Continuous	Continuous
Construction Site BMP Inspection Program - Perform site inspections to determine compliance with erosion/sediment control measures are in place during construction	Continuous	Continuous
SWPPP Requirement for new subdivisions and commercial developments – Require SWPPP and/or Erosion Control Plans for all new subdivisions and commercial developments	Continuous	Continuous
Ordinances – Improved ordinance to address escalated enforcement, SW plan review, and SWPPP s on site for review by inspectors as well as previous requirements for BMPs that addresses silt and sedimentation runoff from construction sites to the extent allowable under State or local law.	Revise as needed	Submit to Council in 2013.

2.5 Post-Construction Stormwater Management in New Development & Redevelopment

The Parish will develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Parish small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.

2.5.1 Measurable Goals

TABLE 2-7
Post-Construction Stormwater Management in New Development & Redevelopment Measurable Goals

Measurable Goals	Frequency	Start/End Date
SW Ordinance Meetings – Schedule and conduct Stormwater Ordinance Sessions that include relevant members from the ST Homebuilders Association, Northshore Business Council, Tammany Together, League of Women Voters, and Parish personnel to assist in effective strategies for long-term BMPs and their enforcement within STP communities.	Monthly	2010-2013
Ordinances - Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.	One-Time Preparation	2013

2.6 Pollution Prevention & Good Housekeeping for Parish Operations

Pollution Prevention for parish operations is required in order to improve and protect receiving water quality by altering the St. Tammany MS4 specific actions. This will help ensure a reduction and in the amount and type of pollution that: (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems. The program must include parish staff training on pollution prevention measures and techniques (e.g., regular street sweeping, reduction in the use of pesticides or street salt, or frequent catch-basin cleaning).

2.6.1 Measurable Goals

TABLE 2-8
Pollution Prevention & Good Housekeeping for Parish Operations Measurable Goals

Measurable Goals	Frequency	Start/End Date
Capital Improvement Program - Maintain roadside vegetation; litter control; regular road and bridge maintenance.	Continuous	Continuous
Preventative Maintenance - The preventive maintenance program involves the periodic lubrication, adjustment, and replacement of worn parts in all equipment where failure could result in a spill of oils or hazardous materials.	Continuous	Continuous
Develop Spill Prevention Plans - Develop plans describing spill prevention and control procedures for parish field personnel.	As needed	As needed
Training Sessions - Conduct annual spill prevention and response training sessions for all Parish employees.	Annual	Annual
Roadway & Bridge Maintenance - Maintain regular street sweeping maintenance	Continuous	Continuous

2.6.2 Preventative Maintenance

Preventive maintenance addresses items that have the potential to directly affect stormwater quality. The preventative maintenance program established in the St. Tammany Public Works Department involves the periodic lubrication, adjustment, and replacement of worn parts in all equipment (for example, pump bearings and engine parts such as hydraulic lines) where equipment failure could result in a spill of oils or hazardous materials. The program includes the following:

- Periodic testing of equipment for integrity
- Periodic adjustment, cleaning, lubrication, and repair or replacement of parts and equipment as recommended by the manufacturer or required by good maintenance practices
- Tagging equipment that should not be operated because of ongoing maintenance activities or because it is inoperable
- Coating storage tanks, pipes, and associated equipment to avoid failure because of corrosion

2.6.3 Good Housekeeping

It is a general Parish Public Works policy to maintain a clean, orderly work environment. Good housekeeping practices include the proper labeling of significant materials, maintaining clean work areas, keeping work areas neat and well organized, disposing of wastes promptly, and making the above activities a priority. These practices are executed by each Public Works personnel every shift.

Good housekeeping practices contribute to the Parish's spill control and prevention effort. Those practices employed in the facility include:

1. Neat and orderly storage of chemicals:
2. Prompt removal of spillage;
3. Proper pathways and walkways; no containers and drums should protrude onto walkways;
4. Stimulation of employee interest in good housekeeping.

2.6.3.1 Operation and Maintenance

Good housekeeping practices for operations and maintenance include:

- Floors and ground surfaces are kept clean and dry by using brooms, shovels, vacuum cleaners, or cleaning machines.
- Garbage and waste material is regularly picked up and properly disposed. Currently garbage is picked up weekly.
- All spillage will be promptly removed. Spill cleanup kits and supplies are maintained onsite and readily available.

2.6.3.2 Material Storage Practice

Good housekeeping practices for material storage include:

- Containers of material are stored away from direct traffic routes to prevent accidental spills.
- Containers are stored in a neat and orderly fashion.
- Labels are present on all liquid storage vessels.
- Containers are stacked according to manufacturers' instructions.
- Containers and tanks are routinely inspected for leaks and current condition.

The importance of these practices will be emphasized through the measurable goal of training future personnel.

2.6.3.3 Employee Training

The facility also has an Emergency Response Team made up of personnel trained specifically for handling and responding to emergency situations.

2.7 Additional Requirements for Permit

The LPDES permit may require specific BMPs related to endangered species. This section will be completed following receipt of the final LPDES permit.

3.0 Annual Evaluation

3.1 Annual Evaluation

The Stormwater Management Plan Team will conduct an annual comprehensive inspection to evaluate the overall effectiveness of this Plan regarding whether minimum control measures to reduce pollutant loadings identified in this Plan are adequate and properly implemented or whether additional control measures are needed.

The process for conducting the annual evaluation will be as follows:

- Review the current Plan.
- Review Parish operations for the past year to determine if areas should be included from the Plan based on activities of the previous year. Also, determine if any existing areas were modified and thus require Plan modifications.
- Conduct a comprehensive inspection to determine if all spill prevention/Stormwater Management Plan measures 1) are accurately identified in the Plan and 2) are in place and working properly. A worksheet for the annual evaluation is included in Appendix E.
- Document findings in a brief report summarizing the scope of the inspection, personnel making the inspection, date(s) of the inspection, and major observations relating to the implementation of the Plan.

3.2 Reporting

St. Tammany Parish will submit annual reports to LDEQ by March 10 for the preceding calendar year. The report must include:

- The status of compliance with permit conditions, an assessment of the appropriateness of identified best management practices and progress towards achieving identified measurable goals for each of the minimum control measures;
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
- A summary of the stormwater activities the Parish plans to undertake during the next reporting cycle; and
- A change in any identified measurable goals that apply to the program elements.

Appendix A

LPDES General Permit 2013
For Small MS4s
Permit No.: LAR041024
Agency Interest No.: 108405

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BooBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

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DEPARTMENT OF ENVIRONMENTAL QUAIJTY
ENVIRONMENTAL SERVICES

August 22, 2013

Certified Mail 7012 3460 0001 0423 5585
Return Receipt Requested

File No. LAR041024
AI No. I08405
GEN20130001

WilJiarn Oiler
St. Tammany Parish Government
P.O. Box 628
Covington.Louisiana 70434

RE: Notice of Authorization to Discharge under the Reissued Louisiana Pollutant Discharge Elimination System (LPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (LAR040000)

Dear Mr.Oiler:

The Office of Environmental Services (Office) has reviewed your Notice of Intent {NOI) that was received April 22, 2013. for authorization to discharge storm water from your regulated Small Municipal Separate Storm Sewer System (MS4) under the reissued Louisiana Pollutant Discharge Elimination System (LPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems.effective March 1, 2013. Per the requirements of the general permit,your NOI was public noticed in The St. Tammany Farmer on July 4, 2013. No comments were received. The attached NOI checklist was considered by this Office prior to making a final permit decision.

This system has been determined eligible for coverage under our general permitting system. Therefore, pursuant to the Louisiana Environmental Quality Act (LA R.S. 30:2001, *et seq.),* the LPDES general permit number LAR041024 has been issued authorizing:

St. Tanunany Parish Government Small MS4 (AI I08405)
Covington,Louisiana, St. Tammany Parish
A regulated Small MS4
Telephone Number: (985) 898·2552

to discharge storm water to waters of the State.

This Small MS4 is authorized to discharge storm water under the terms and conditions imposed by Louisiana's LPDES General Pennit for Discharges from Small Municipal Separate Stonn Sewer Systems. Please note that your permit authorization number remains the same. Any future correspondence regarding this permit should reference your pennit authorization number LAR041024 and the Agency Interest Number 108405.

The general pennit requires that you continue to implement and enforce a stonn water management program designed to reduce the discharge of pollutants from your Small MS4 to the maximum extent practicable (MEP) to protect water quality, and to satisfy the appropriate water quality requirements of the Louisiana Environmental Quality Act. Your stonn water management plan (SWMP) niust include the six minimum control measures identified in Part IV.B of the pennit and the measurable goals used to evaluate the effectiveness of each control measure.

LDEQ requires the following item in your Stonn Water Management Plan:

Total Maximum Daily Loads (TMDLs) for Biochemical Oxygen-Demanding SubstanCes were finalized for subsegments as follows:

- Bayou Liberty (Subsegments 040905 and 040906) and Bayou Bonfouca (Subsegments 040907 and 040908) finalized on October 19,2011
- Lower Tchefuncte River (Subsegments 040802 and 040803) finalized.on March 6, 2012
- Bayou Lacombe (Subsegments 040901 and 040902) finalized on March 2, 2012

Wasteload allocations were assigned to the MS4. Per the requirements of the permit, you must modify the storm water management progmm to implement the TMDLs within six : months of the final approval dates or as otherwise specified in the TMDLs.

As you develop your stonn water management program, you must continuously evaluate program compliance, the appropriateness of your identified best management practices (BMPs),and progress towards achieving your identified measurable goals, and make any needed changes/updates to your plan. You are required to submit annual reports by March 10 for the preceding calendar year. Annual reports should be sent to the LDEQ Office of Environmental Compliance, P. 0. Box 4312, Baton Rouge, LA 70821-4312. In order to maintain permit coverage and to avoid possible penalties you must maintain compliance with all terms and conditions of the permit.

The Environmental Protection Agency (EPA) has developed and made available online educational outreach materials and reference documents related to municipal stonn water that local governments can customize and use in their stormwater outreach campaigns. The electronic files found on their website can be customized by adding local contact information and then printed for mass distribution. Please take advantage of the useful infonnation contained in the EPA website at *l•ttp:l/cfoub.epa.govlnpdeslstormwatermontll.c(m.*

An annual maintenance and surveillance fee will continue to be assessed to your facility for covemge under this pennit. The fee, which is based upon the state's fiscal year (July I through June 30), will be invoiced separately by this agency.

A copy of the permit can be accessed and printed from the LDEQ website at: *ilttp://www.deq.lollisiana.gov/portaUPortals/O/permitsllpdeslpdf/LAR04 2012 FINALpd(*. If you are unable to access and/or print a copy of this permit for your records, please contact the Water Permits Division at (225) 219-9371 to request a hard copy to be sent by mail.

If you have any questions concerning the reissued general permit, please contact Raye Gendron in the Water Quality and General Permits Section by telephone at (225) 219-3205 or by e-mail at raye.gendron@la.gov.

Sincerely,

Jenniffer She ard, Environmental Scientist Manager
Water Permits Division

Attachment: NOI/Stormwater Management Program Review Checklist

c: 10-W

ec: Raye Gendron
Permits Division

Permit Compliance Unit
Office of Environmental Compliance

Southeast Regional Office
Office of Environmental Compliance

Ashley Broom
Office of Management and Finance

Sabrina Schenk (stonnwater@stpgov.org)
St. Tammany Parish Watershed Coordinator

NOI/Stormwater Management Program (SWMP) Review

MS4 Permit Information

MS4 Name:St. Tammany Parish

Does this application include more than one copermittee? No

If yes, list all copermittees:NA

AI N:108405

Permit##:LAR041024

Renewal:
r..Yes ('No

If "Yes", Date of Initial Authorization:412112003

Notice of Intent/SWMP Checklist

Note: MS4s that received initial authorization less than 5 years ago may not have a completely dev_e/oped and/or Implemented SWMP

Notice of Intent-Basic Information			
	Item	Complete (YIN)	Comments
1.	Section I- MS4 operator(s) infonnation and contact person	У	
2.	Section II- MS4 pennit and fee status	У	
3.	Section III – MS4 name, regulated areas, population and coordinates.	У	
4.	Section III – Is a map (or equivalent) attached to the NOI and are outfalls, receiving waters, and control structures identified? (Note: MS4s that have been pennitted less than 5 years are not required to have identified all outfalls.)	У	
5.	Section IV – Stonn Water Management Plan contact person	У	

Notice of Intent- BMPs and Measurable Goals

As a renewal, the MS4 operator has the option of using Section VI of the NOI or attaching a separate SWMP that describes the BMPs and measurable goals for minimum control measure. Is at least one BMP identified for each of the following minimum control measures (MCM)? Are measurable goals identified for the selected BMPs?

	MCM	Y/N	Comments
1.	Public Education and Outreach on storm water impacts? *In the case of non-traditional MS4s (e.g., LDOTD, universities, hospitals, prisons, military bases, and other government complexes), the permittee is only required to provide educational materials and outreach to the MS4 employees, on-site contractors, and individuals using the MS4's facilities.*	Y	
2.	Public Involvement/Participation *In the case of non-traditional MS4s (e.g., LDOTD, universities, hospitals, prisons, military bases, and other government complexes), the MS4 is required to involve employees, on-site contractors, and individuals using the MS4 facilities.*	Y	
3.	Illicit Discharge Detection and Elimination *This MCM requires that the MS4 develop an ordinance. Does the NOI or SWMP reftrence an ordinance?* *This MCM requires the development of a storm sewer system map. Does the NOI or SWMP reftrence it?*	Y	
4.	Construction Site Storm Water Runoff and Control *This MCM requires that the MS4 develop an ordinance. Does the NOI or SWMP reference an ordinance?*	Y	
5.	Post-Construction Storm Water Management in New Development and Redevelopment *This MCM requires that the MS4 develop an ordinance. Does the NOI or SWMP reference an ordinance?*	Y	

6.	Pollution Prevention/Good Housekeeping for Municipal Operations *The pollution prevention/good housekeeping program shall include, at a minimum, an annual employee training for all eligible employees.*	У	
Notice of Intent - Certification			
Is the signature page complete and signed by a duly authorized representative(Ye o)?			Yes

Public Notice and Authorization

Does the NOI require a Notice of Deficiency (Yes/No): No
Date NOD sent: NA
Date Response received: NA

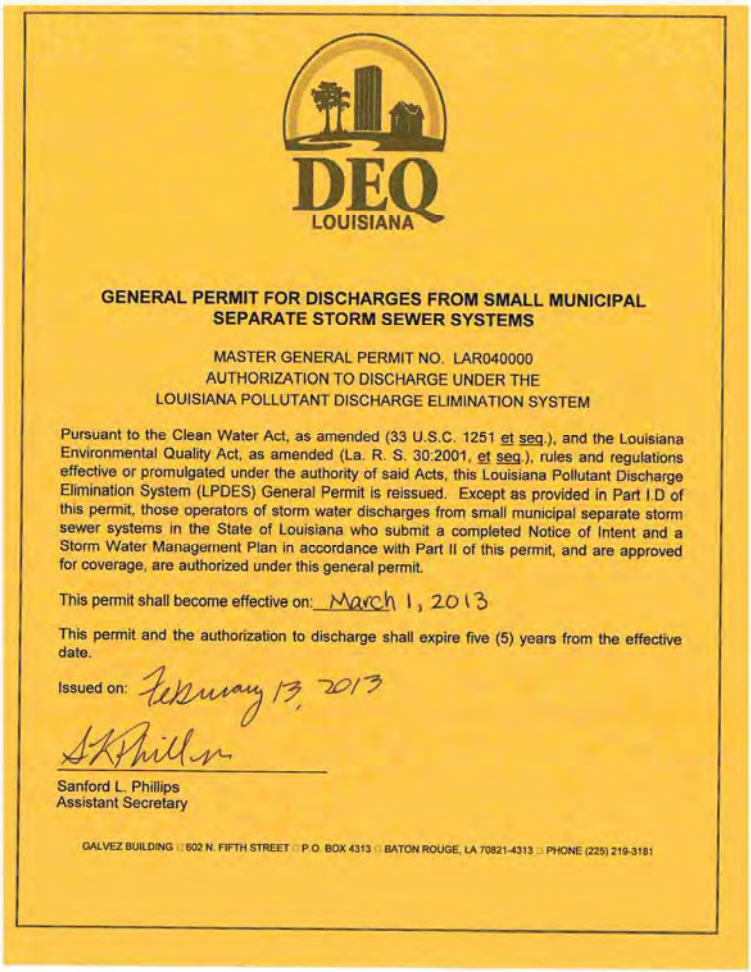
Date NOI Public Noticed: 7/4/2013

Comments Received? (Yes/No): No

Summary of Comments: NA

Date Permit Authorization Prepared: 8/20/2013

Permit Writer Initials: RCG



DEQ
LOUISIANA

GENERAL PERMIT FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

MASTER GENERAL PERMIT NO. LAR040000
AUTHORIZATION TO DISCHARGE UNDER THE
LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001, et seq.), rules and regulations effective or promulgated under the authority of said Acts, this Louisiana Pollutant Discharge Elimination System (LPDES) General Permit is reissued. Except as provided in Part I.D of this permit, those operators of storm water discharges from small municipal separate storm sewer systems in the State of Louisiana who submit a completed Notice of Intent and a Storm Water Management Plan in accordance with Part II of this permit, and are approved for coverage, are authorized under this general permit.

This permit shall become effective on: March 1, 2013

This permit and the authorization to discharge shall expire five (5) years from the effective date.

Issued on: February 13, 2013

Sanford L. Phillips
Assistant Secretary

GALVEZ BUILDING ▯ 602 N. FIFTH STREET ▯ P.O. BOX 4313 ▯ BATON ROUGE, LA 70821-4313 ▯ PHONE (225) 219-3181

LPDES GENERAL PERMIT
DISCHARGES FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

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PART I
COVERAGE UNDER THIS PERMIT

A. Permit Area

This permit covers all areas, except agricultural lands, of the State of Louisiana that are served by regulated small municipal separate storm sewer systems (small MS4s).

B. Eligibility

1. This permit authorizes discharges of storm water from a regulated small municipal separate storm sewer system (MS4) as defined in LAC 33:IX.2511.B.16 and LAC 33:IX.2519, as stated below.

The MS4 systems which are required to obtain permit coverage include:

a) in Urbanized Areas (UAs), all core cities, plus any other MS4 systems operating within the UA unless specifically waived by the LDEQ;

b) outside Urbanized Areas, MS4 systems serving populations of 10,000 to 50,000 and a population density of at least 1,000 persons per square mile which have been "designated" by the LDEQ) Other MS4 systems may be designated by the Director in response to a petition or as needed to protect water quality.

LAC 33:IX.2511.B.16: Small Municipal Separate Storm Sewer System - a municipal separate storm sewer system that:

a. is owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body (created by or in accordance with state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, and other wastes, including special districts under state law such as a sewer district, flood control district, or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state;

b. is not defined as a large or medium municipal separate storm sewer system in accordance with Subsection B.4 and 7 of this Section, or designated under Subsection A.1.e of this Section; and

c. includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

LAC 33:IX.2519:

As an Operator of a Small MS4, am I regulated under the LPDES Storm Water Program?

A. Unless you qualify for a waiver under Subsection C of this Section, you are regulated if you operate a small MS4 including, but not limited to, systems operated by federal, state, tribal, and local governments, including state departments of transportation, and:

1. your small MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census. (If your small MS4 is not located entirely within an urbanized area, only the portion that is within the urbanized area is regulated); or

2. you are designated by the state administrative authority, including where the designation is based upon a petition under LAC 33:IX.2511.F.4.

B. You may be the subject of a petition to the state administrative authority to require an LPDES permit for your discharge of storm water. If the state administrative authority determines that you need a permit, you are required to comply with LAC 33:IX.2521-2525.

C. The state administrative authority may waive the requirements otherwise applicable to you if you meet the criteria of Subsection D or E of this Section. If you receive this waiver, you may subsequently be required to seek coverage under an LPDES permit in accordance with LAC 33:IX.2521.A if circumstances change.

D. The state administrative authority may waive permit coverage if your MS4 serves a population of less than 1,000 within the urbanized area and you meet the following criteria:

1. your system is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated by the LPDES storm water program; and

2. if you discharge any pollutant(s) that have been identified as a cause of impairment of any water body to which you discharge, storm water controls are not needed based on wasteload allocations that are part of a department-established total maximum daily load (TMDL) that addresses the pollutant(s) of concern.

E. The department may waive permit coverage if your MS4 serves a population under 10,000 and you meet the following criteria:

1. the department has evaluated all waters of the state, including small streams, tributaries, lakes, and ponds, that receive a discharge from your MS4;

2. for all such waters, the department has determined that storm water controls are not needed based on wasteload allocations that are part of a TMDL established by the department or by EPA and approved by EPA 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;

3. for the purpose of this Subsection, the pollutant(s) of concern include biochemical oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity, or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from your MS4; and

4. the department has determined that future discharges from your MS4 do not have the potential to result in noncompliance with water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts.

C. Allowable Non Storm Water Discharges

The following non-storm water sources may be discharged from the MS4 and are not required to be addressed in the MS4s Illicit Discharge Detection and Elimination plan or other minimum control measures, provided that they have been determined by the permittee to not be substantial sources of pollutants to the MS4:

- discharges or flows from fire fighting activities (excludes predictable and controllable discharges from a fire fighting training facility);
- fire hydrant flushings;
- potable water including: water line flushings using potable water; drinking fountain overflows; lawn watering runoff; and similar sources of potable water;
- uncontaminated air conditioning or compressor condensate;
- residual street wash water and pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- routine external building wash down which does not use detergents;
- drainage from landscape watering;
- rising ground waters;
- uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- uncontaminated pumped ground water;
- foundation drains;
- irrigation water;

- uncontaminated spring water;
- water from crawl space pumps;
- footing drains;
- water from individual residential car washing;
- flows from riparian habitats and wetlands;
- dechlorinated swimming pool discharges;
- other similar occasional incidental discharges (e.g. non-commercial or charity car washes) where such discharges will not cause a problem either due to the nature of the discharge or controls the MS4 places on the discharge. The permittee must identify all types of discharges that they will allow as occasional incidental discharges and specify those discharges in their storm water management plan (SWMP).

D. Limitations on Coverage

The following discharges, whether discharged separately or commingled with municipal storm water, are not authorized by this permit:

1. Storm water discharges that are mixed with non-storm water or storm water associated with industrial activity unless such discharges are:

   a. in compliance with a separate LPDES permit, or

   b. identified by and in compliance with Part I.C of this permit.

2. Discharges of material resulting from a spill. Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or ensure the responsible party for the spill takes all reasonable steps to minimize or prevent any adverse effects on human health or the environment. This permit does not transfer liability for a spill itself from the party(ies) responsible for the spill to the permittee(s) nor relieve the party(ies) responsible for a spill from the reporting requirements of LAC 33:I.Subchapters A-E (40 CFR Part 117 and 40 CFR Part 302).

3. Storm water discharges whose direct, indirect, interrelated, interconnected, or interdependent impacts are likely to have adverse effects upon endangered or threatened species, or on the critical habitat for these species as determined in conjunction with the U.S. Fish and Wildlife Service (USFWS).

4. Storm water discharges or implementation of your storm water management plan, which adversely affect properties listed or eligible for listing in the National Register of Historic Places, unless you are in

compliance with requirements of the National Historic Preservation Act (NHPA) and any necessary activities to avoid or minimize impacts have been coordinated with the Louisiana State Historic Preservation Officer (SHPO) (for questions, the operator should contact the Section 106 Review Coordinator, Office of Cultural Development, P. O. Box 44247, Baton Rouge, LA 70804-4247 or telephone (225) 342-8170).

5. Storm water discharges into any waterbody for which a TMDL has been approved if the storm water discharges do not comply with Part III.B of this permit.

6. Any new source or new discharge containing the pollutants of concern to a 303(d) listed waterbody where a TMDL has not been approved unless allowed under LAC 33:IX.2317.A.9. You may be eligible under this section if you comply with Part IV.G of this permit.

E. Permittee Responsibilities

1. Each permittee is responsible for:

   a. Compliance with permit conditions relating to discharges from portions of the Municipal Separate Storm Sewer System where the permittee is the operator;

   b. Storm Water Management Program (SWMP) implementation on portions of the Municipal Separate Storm Sewer System where the permittee is the operator (including developing and implementing measurable goals for the Best Management Practices (BMPs) used to satisfy the control measures identified in Part IV.D1-6);

   c. Compliance with annual reporting requirements as specified in Part V.C.;

   d. Collection of representative wet weather monitoring data required by Part V.A, according to such agreements as may be established between permittees; and

   e. A plan of action to assume responsibility for implementation of storm water management and monitoring programs on their portions of the Municipal Separate Storm Sewer System should inter-jurisdictional agreements allocating responsibility between permittees be dissolved or in default.

2. Permittees are jointly responsible for permit compliance on portions of the Municipal Separate Storm Sewer System where operational or Storm Water Management Program implementation authority over portions of the

Municipal Separate Storm Sewer Systems is shared or has been transferred from one permittee to another in accordance with legally binding agreements.

F. Obtaining Authorization

All MS4 operators, including operators covered under a previous version of the LPDES General Permit LAR040000, must comply with the following application requirements.

Application and Public Notice Requirements
In order for storm water discharges from small municipal separate storm sewer systems to be authorized to discharge under this general permit, a regulated small MS4 must:

1. Submit a correctly completed Notice of Intent (NOI - Form MS4-G). In accordance with the requirements of Part II below, the applicant must submit either in the NOI, or as an attachment to the NOI, a proposed storm water management plan, using the NOI form provided by the State Administrative Authority (or a photocopy thereof). Operators authorized under a previous version of LPDES General Permit LAR040000 shall submit the current storm water management plan, revised as necessary to meet new requirements contained in this permit.

2. Where the operator changes, or where a new operator is added after the submittal of an NOI, a new NOI must be submitted in accordance with Part II.

3. Any NOI and Storm Water Management Plan submitted for authorization under this general permit will be placed on public notice on LDEQ's website and in at least one local circulation for a minimum of 30 days. All interested parties will be given the opportunity to comment and to request a public hearing to raise issues of concern related to permitting discharges from a particular drainage system during this period.

4. Dischargers who submit an NOI in accordance with the requirements of this permit may be granted coverage under the general permit after 30 days has elapsed to allow public comment on the contents of the NOI and, if necessary, to hold a public hearing on issues of concern that might arise during the public comment period. This office will issue written notification to those Small MS4s who are accepted for coverage under this general permit. If it is determined that an MS4 would be more appropriately regulated under an individual permit, the permittee will be notified that it will not be permitted under the general permit and an individual permit will be issued to the MS4 operator. The State Administrative Authority may later deny coverage under this permit and require submittal of an application for

an individual LPDES permit based on a review of the NOI or other information (see Part VI.L of this permit).

5. New MS4 permittees granted authorization to discharge under this general permit will be listed in the Water Permits Division activity report on the LDEQ website at: http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/WPDActivities.aspx. NOIs and associated documents will be available in the Electronic Document Management System (EDMS) for public review: http://edms.deq.louisiana.gov/app/doc/querydef.aspx.

PART II
NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification

1. If you are an operator of a newly regulated small municipal separate storm sewer system designated under LAC 33:IX.2519.A.1 (located in urbanized areas as determined by the 2010 Decennial Census by the Bureau of the Census), you must apply for coverage under this permit within 120 days of being notified by LDEQ that you operate a regulated small MS4.

2. If you are an operator of a regulated small municipal separate storm sewer system designated under LAC 33:IX.2519.A.2, you must apply for coverage under this permit, or apply for a modification of an existing LPDES permit within 120 days of notice from the LDEQ that coverage is required.

3. If you are an operator of a regulated small municipal separate storm sewer system that was required to apply for coverage under a previous version of the LPDES General Permit LAR040000, you must reapply for coverage under this permit within 60 days of being notified by LDEQ.

4. Requests for waivers under LAC 33:IX.2519.C (see Part I.B) must be submitted in writing, with supporting documentation, no later than 60 days of becoming aware that you operate a regulated small MS4.

5. Where the operator changes, or where a new operator is added after the submittal of an NOI under Part II, the new owner/operator must complete and file an NOI in accordance with Part I.F of the permit at least 30 days prior to taking over operational control of the facility. The prior operator must submit a Notice of Termination once authorization is provided to the new operator.

B. Contents of Notice of Intent

The Notice(s) of Intent shall be signed in accordance with Part VI.G of this permit and shall include the following information:

1. The MS4 name;

2. The street address, parish, and the latitude and longitude of the city hall or municipal business office for the MS4 operator for which the notification is being submitted;

3. The name, address, and telephone number of the operator(s) filing the NOI for permit coverage;

4. The names of all states where the applicant has federal or state environmental permits identical to, or of a similar nature to the MS4 permit;

5. A statement that the applicant does not owe any outstanding fees or final penalties to DEQ; if there are outstanding fees or penalties, you should explain why they have not been paid;

6. Whether the applicant is a corporation or limited liability company;

7. The name of the all receiving water(s);

8. A USGS 7.5 minute topographic map, or equivalent, of the MS4 service area with the known municipal storm sewer outfalls and any major control structures identified;

9. An estimate of the square miles of the MS4 service area;

10. any existing quantitative data that characterizes the discharge, such as the monthly mean rainfall estimates, volume and quality of the discharges from the municipal storm sewer, and the results of any visual field screening at identified outfalls; and

11. In the NOI or as an attachment to the NOI, the following information for each of the six Minimum Control Measures (MCMs) defined below in Part IV.B:

    a. Selected best management practices (BMPs);

    b. the measurable goals for each of the storm water minimum control measures, the month and year in which the MS4 operator began or will begin full implementation of each of the minimum control measures, interim milestones, and the frequency of the action; and

    c. the person or persons responsible for implementing or coordinating the storm water management program (LAC 33:IX.2523.D.1.c).

C. Where to Submit

NOIs, signed in accordance with Part VI.G of this permit, are to be submitted to the LDEQ at the address:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, LA 70821-4313
Attention: Water Permits Division

PART III SPECIAL CONDITIONS

A. Discharge Compliance with Water Quality Standards

Your discharges must not be causing or have the reasonable potential to cause or contribute to a violation of a water quality standard. Where a discharge is already authorized under this permit and is later determined to cause or have the reasonable potential to cause or contribute to the violation of an applicable State or Federal Water Quality Standard, the permitting authority will notify you of such violation(s) and the permittee shall take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and document these actions in the SWMP. If violations remain or recur, then the permitting authority may require specific changes to the SWMP, or coverage under this permit may be terminated by the permitting authority, and an alternative general permit or individual permit may be issued, in accordance with Part VI.L below. Compliance with this requirement does not preclude any enforcement activity as provided by the Clean Water Act and Louisiana Environmental Quality Act for the underlying violation.

The LDEQ has established procedures for monitoring water quality throughout the state to determine if water quality standards are being met and to determine if TMDLs are required to prevent further degradation to water quality impaired streams. The permit requires that permittees implement a storm water management plan that is designed to minimize the discharge of pollutants from the regulated area to waters of the state. The permittee is required to implement BMPs to fulfill the requirements outlined in Part IV.D. Implementing BMPs to minimize the discharge of pollutants to the storm sewer system should result in less polluted storm water runoff from the regulated areas to receiving water bodies.

Permittees must comply with the state's antidegradation policy and plan (LAC 33:IX.1109.A; LAC 33:IX.1119). Permittees must ensure that storm water discharges to water bodies designated as Outstanding Natural Resource Waters (ONRWs) will not degrade water quality to the Maximum Extent Practicable (MEP). Additional BMPs and regulatory mechanisms (i.e. ordinances or codes) may be required in order to prevent erosion, sedimentation, or illicit discharges to ONRWs. If it is demonstrated that a discharge from a particular MS4 regulated by this permit would result in the violation of an in stream water quality criteria or adversely impact the designated uses of a receiving stream, the Department will consider how the implementation of the Control Measures outlined in Part IV.D will affect the quality of storm water discharges from the MS4. If it is determined that the Control Measures outlined in Part IV.D are inadequate

to control the discharge of pollutants from the MS4 effectively enough to meet the in stream water quality criteria or protect the designated uses of the receiving stream, then the procedures outlined in LAC 33:IX.1119.C may be implemented to determine if the discharge from the MS4 can be permitted under this general permit, or the MS4 may be required to obtain coverage under an individual LPDES permit.

Discharges of pollutants from an MS4 that cannot be effectively controlled under the conditions of this permit will not be authorized to discharge under this general permit.

B. Total Maximum Daily Load (TMDL) Allocations

Permittees must document in their SWMP how the BMPs and other controls implemented in the SWMP will control the discharge of any pollutant(s) of concern (POCs) for discharges into a receiving water which has been listed on the Clean Water Act 303(d) list of impaired waters. If a TMDL has been approved for a waterbody, the permittee will be required to include any TMDL requirements in the SWMP that are applicable to MS4 discharges into basin subsegments where TMDLs have been established.

If storm water runoff from a regulated MS4 flows into a basin subsegment **that is listed on the most recent EPA-approved 303(d) list**, then the permittee's SWMP must address any impairments where the suspected source has been identified as *urban runoff/storm sewers, municipal (urbanized high density area), or unspecified urban stormwater.* If a TMDL has not yet been approved for a 303(d) listed basin subsegment number that receives storm water runoff from the regulated MS4s, **and** the source of pollutants causing the impairment(s) have been attributed to MS4s, then the permittees must describe how the BMPs and other control(s) selected for the SWMP will minimize, to the maximum extent practicable (MEP), the discharge of those pollutants which have been identified as causing the impairment. Impaired water bodies (without a TMDL) are listed as Category 5 in Appendix A of LDEQ's most recent Integrated Report (IR), located at:
http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/WaterQualityAssessment/WaterQualityInventorySection305b.aspx.

If a TMDL allocation has been assigned for specific pollutants, which are identified as impairments attributed to discharges from regulated MS4s, then the permittee must modify the storm water management program to implement the TMDL within six months of the TMDL's approval or as otherwise specified in the TMDL. This requirement includes TMDLs that are developed during the term of this general permit. In addition to any MS4-specific requirements of the TMDL, the permittee must also: 1) implement storm water controls that specifically target the pollutant(s) of concern 2) identify a measurable goal for the pollutant(s) of concern and 3) implement a monitoring program

to assess whether or not the storm water controls are adequate to meet the WLA. *See Part IV.H for a thorough discussion of permit requirements should a WLA be assigned for discharges of one or more pollutants from your MS4.* Impaired water bodies for which TMDLs have been developed are listed as Category 4a in Appendix A of LDEQ's most recent IR, located at:
http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/WaterQualityAssessment/WaterQualityInventorySection305b.aspx.

C. Releases in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the storm water discharge(s) from a regulated small MS4 shall be prevented or minimized in accordance with the applicable storm water management plan. This permit does not relieve the permittee of the reporting requirements of LAC 33:I.3915 and LAC 33:I.3917.

1. Emergency Notification - The permittee shall report any noncompliance which may endanger human health or the environment. As required by LAC 33:I.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the DPS 24-hour Louisiana Emergency Hazardous Materials Hotline by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health, safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. A written submission shall be provided within seven calendar days of the time the permittee becomes aware of the circumstances. The Written Notification Reports shall be **either faxed to** (225) 219-4044 or (225) 219-3695, **or mailed to** the Louisiana Department of Environmental Quality, ATTN: Inspections Division SPOC, Unauthorized Discharge Notification Report, P.O. Box 4312, Baton Rouge, LA 70821-4312. The Written Notification Report shall contain the following information:

   a. the name, address, telephone number, Agency Interest (AI) number assigned by the Department, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by LAC 33:IX.2925; a description of the noncompliance and its cause;

b. the time and date of prompt notification, the state official contacted when reporting, the name of the person making that notification, and identification of the site/location or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;

c. date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;

d. details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit. If applicable, the current permitted limit for the pollutant(s) released, the permitted release point/outfall ID, and which limits were exceeded (PAH limit, BTEX limit, chlorine limit, etc.);

e. the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any or all released pollutants (total amount of each compound expressed in pounds, including calculations);

f. a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;

g. remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation;

h. procedures or measures which have been or will be adopted to prevent recurrence of the incident or similar incidents, including incidents of loss of sources of radiation;

i. if an unpermitted or unlicensed site or facility is involved in the unauthorized discharge, a schedule for submitting a permit or license application to the department, or rationale for not requiring a permit or license;

j. the reporting party's status (former or present owner, operator, disposer, etc.);

k. all information of which the reporting party is aware that indicates pollutants are migrating, including, but not limited to, monitoring well data; possible routes of migrations; and all information of which the reporting party is aware regarding any public or private wells in the area of the migration used for drinking, stock watering, or irrigation;

l. what other agencies were notified;

m. the names of all other responsible parties of which the reporting party is aware;

n. a determination by the discharger of whether or not the discharge was preventable, or if not, an explanation of why the discharge was not preventable;

o. the extent of injuries, if any; and

p. the estimated quantity, identification, and disposition of recovered materials, if any.

2. Prompt Notification - As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify the Office of Environmental Compliance, Surveillance Division, SPOC within 24 hours after learning of the discharge. Prompt notification can be provided within a period not to exceed 24 hours and shall be given to the Office of Environmental Compliance SPOC. Notification can be made by email or orally utilizing any **one** of the following procedures: (1) use the Online Incident Reporting screens and procedures found at www.deq.louisiana.gov/portal/tabid/279/Default.aspx.; (2) use a direct email addressed to spillcomplaint@deq.state.la.us; or (3) verbally notify LDEQ by calling the LDEQ Hotline at (225) 342-1234, which is manned 24 hours a day, 7 days a week, or by calling the LDEQ-SPOC at (225) 219-3640 which is manned during normal office hours (M-F, 8:00 am – 4:30 pm). The online notification procedure removes the need to make a verbal call to the LDEQ Hotline or the SPOC phone number and allows the notification to be submitted directly to the SPOC electronically. In accordance with LAC 33:IX.3925, the discharger must also submit a Written Notification Report within seven (7) days after submitting the 24-hour electronic or verbal notification of any unauthorized discharge. Written Notification Reports may be either faxed or mailed to the LDEQ, Office of Environmental Compliance, Inspections Division. Written Notification Reports should be **either faxed to** (225) 219-4044 or (225) 219-3695, **or mailed to** the Louisiana Department of Environmental Quality, ATTN: Surveillance Division SPOC, Unauthorized Discharge Notification Report, P. O. Box 4312, Baton Rouge, LA 70821-4312.

3. The State Administrative Authority may waive the written report required above, on a case-by-case basis if the oral report has been received within 24 hours.

4. The storm water management plan required under Part IV of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the recurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

D. Spills

The permit does not authorize the discharge of hazardous substances or oil resulting from spills. Nor does the permit authorize the discharge of any other substance resulting from a spill event. All reasonable steps must be taken to minimize or prevent any adverse effects on human health or the environment resulting from such spills.

PART IV
STORM WATER MANAGEMENT PROGRAMS

A. Requirements

Within five years following **initial** authorization under the permit, you must develop, implement, and enforce a storm water management program.

Operators Applying for Initial Permit Coverage:

Operators who apply for initial permit coverage under the re-issued general permit must develop and implement a storm water management plan within five years following initial authorization under the general permit. While full program implementation may take up to five years, credible progress in implementing existing, partial or interim programs must be made during the term of the permit (e.g., initial illicit discharge and public education programs should be able to be launched within the first year of permit coverage).

Currently Permitted Operators:

Operators who were permitted more than five years prior to the effective date of this reissued general permit are required to have fully developed and implemented a storm water management plan. Operators who received initial coverage under the previous general permit within the last five years are required to have fully developed and implemented a storm water management plan within five years from the date of their initial coverage. Deadlines for complete program development and implementation are not extended with each general permit reissuance.

The storm water management program (SWMP) shall be described in detail in a written storm water management plan (SWMP). The storm water management plan shall be designed to reduce the discharge of pollutants from your small municipal separate storm sewer system to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Louisiana Environmental Quality Act and the Clean Water Act.

The Storm Water Management Program shall cover the term of the permit and shall be updated as necessary, or as required by the Secretary or his designee, to ensure compliance with the statutory requirements of LAC 33:IX.2523 and Section 402(p)(3)(B) of the Act. Modifications to the Storm Water Management Program shall be made in

accordance with Parts IV.E and VI.W. Compliance with the Storm Water Management Program and any schedules required by the permit shall be deemed compliance with Parts IV.A and IV.D. The Storm Water Management Program, and all updates made in accordance with Part IV.E, are hereby incorporated by reference.

Your storm water management program must include the minimum control measures described below in Section C of this Part.

Program development resources are available through the EPA web site at http://cfpub.epa.gov/npdes/stormwatermonth.cfm. Guidance on Minimum Measures and Measurable Goals and a menu of BMPs are available on the EPA's main storm water program page which is located at http://cfpub.epa.gov/npdes/stormwater/swphases.cfm. Other important MS4-related information is available on the EPA website at http://cfpub.epa.gov/npdes/ whatsnew.cfm?program_id=6. Information related to BMPs that may be used to satisfy the requirements of the six Minimum Control Measures required by Part IV.D of the permit are provided at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=1.

B. Responsibilities of Co-permittees

Each permittee shall contribute to the development, revision and implementation of a comprehensive Storm Water Management Program (SWMP) including pollution prevention measures, treatment or removal techniques, storm water monitoring, use of legal authority, and other appropriate means to control the quality of storm water discharged from the Municipal Separate Storm Sewer System. Each permittee shall enforce the elements of the Storm Water Management Program required by this permit and as described within the SWMP document(s). Existing permittees with fully developed Storm Water Management Programs shall continue to implement the program and enforce the elements of the Storm Water Management Program specifically required by this permit to control the discharge of pollutants to the maximum extent practical (MEP). Existing permittees with fully developed programs shall also continue to revise the SWMP as necessary. Implementation of the Storm Water Management Program may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part IV in lieu of creating duplicate program elements for each individual permittee. You must describe in writing any participation in a cooperative effort and explain how that cooperative effort fulfills any of your Part IV permit requirements. Where a separate MS4 operator is contributing to implementation of the SWMP, the SWMP must clearly define the minimum measure and components(s) each entity agrees to implement and within which MS4 area(s). The Storm Water Management Program, taken as a whole, shall achieve the "effective prohibition on the discharge of non-storm water" and "MEP" standards from LAC 33:IX.2523 and Section 402(p)(3)(B) of the Act.

The Storm Water Management Program shall be implemented in accordance with Section 402(p)(3)(B) of the Act, and the LPDES Storm Water Regulations (LAC 33:IX.2511).

Controls and activities in the Storm Water Management Program shall identify areas of permittee responsibility on a jurisdiction, applicability, or specific area basis. The Storm Water Management Program shall include controls necessary to effectively prohibit the discharge of non-storm water into municipal separate storm sewers and reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP).

C. Legal Authority

1. Traditional MS4s, such as Cities, Towns, and Parishes

Within one year from the effective date of this permit, dischargers permitted under a previous version of the general permit shall review and, if needed, initiate a revision of its relevant ordinance(s) or other regulatory mechanism(s) **or** shall adopt a new ordinance(s) or other regulatory mechanism(s) that provides the permittee with adequate legal authority to control pollutant discharges into and from its MS4 in order the meet the requirements of Part IV.D of this permit. If necessary, relevant ordinance(s) shall be revised no later than two years from the effective date of this permit. New operators without an appropriate ordinance or other regulatory mechanism shall establish a plan to adopt an ordinance prior to submittal of a Notice of Intent. New operators must adopt such an ordinance within two years of receiving notification of coverage.

2. Non-traditional MS4s, such as Transportation Entities

Where the permittee lacks the authority to develop ordinances or to implement enforcement actions, the permittee shall exert enforcement authority as required by this general permit for its facilities, employees, contractors, and other entities over which it has operation control, within the portion of the UA under jurisdiction of the permittee. If the permittee does not have enforcement authority and is unable to meet the goals of this permit through its own powers, then the permittee shall:

a. Enter into inter-jurisdictional agreements with municipalities where the small MS4 is located. These inter-jurisdictional agreements must state the extent to which the municipality will be responsible for enforcement in order to meet the conditions of this general permit; or,

b. If it is not feasible for the permittee to enter into inter-jurisdictional agreements, the permittee shall notify an adjacent MS4 operator with enforcement authority or the LDEQ's Regional Office as needed to report discharges or incidents for which it cannot itself take enforcement action.

D. Minimum Control Measures

You must provide a rationale for how and why you selected each of the BMPs and measurable goals for your storm water management program.

In addition to providing the rationale described above, your storm water management program must include the following information for each of the six minimum control measures described below.

- The best management practices (BMPs) that you or another entityare implementing, or will implement (for operators permitted less than 5 years ago), for each of the storm water minimum control measures;
- The measurable goals for each of the BMPs including, as appropriate, the months and years in which you have taken, or will undertake required actions, interim milestones and the frequency of the action; and
- The person or persons responsible for implementing or coordinating the BMPs for your storm water management program.

The six (6) minimum control measures to be included in your storm water management program are:

1. Public Education and Outreach on Storm Water Impacts

a. You must:

(1) implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(2) identify each individual BMP and its corresponding measurable goal that you use in your public education and outreach program that is designed to minimize the discharge of pollutants into your MS4.

(3) describe how you inform individuals and households about the steps they can take to reduce storm water pollution.

(4) describe how you inform individuals and groups on how to become involved in the storm water program (with activities such as local stream and beach restoration activities.)

(5) identify the target audiences for your education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities) and why those target audiences were selected.

(6) identify the target pollutant sources your public education program is designed to address.

(7) identify your outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) you use to reach your target audiences, and how many people do you expect to reach by your outreach strategy over the permit term.

(8) identify who is responsible for overall management and implementation of your storm water public education and outreach program and, if different, who is responsible for each of the BMPs identified for your storm water public education and outreach program.

(9) describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

(1) use storm water educational materials locally developed or provided by: i) the EPA (refer to http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=1), ii) the LDEQ (http://www.deq.louisiana.gov/portal/tabid/2953/Default.aspx), iii) environmental, public interest or trade organizations (refer to http://www.stormwaterauthority.org/library/library.aspx?id=199; http://www.smartgrowth.org/Default.asp?res=800), and/or iv) other MS4s;

(2) inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups;

(3) tailor your program, using a mix of locally appropriate strategies, to target specific audiences and communities. You should target some of the materials or outreach programs to be directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant storm water impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges; and

(4) tailor your outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children.

2. Public Involvement/Participation

a. You must:

(1) at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.

(2) identify each individual BMP and its corresponding measurable goal that you use in your public involvement/participation program that is designed to minimize the discharge of pollutants into your MS4.

(3) describe how you involve the public in the development and submittal of your NOI and storm water management program. *(You are strongly encouraged to make the storm water management plan and Annual Reports available for review/comment at the local level prior to submittal to LDEQ.)*

(4) describe how you actively involve the public in the development of your storm water program. *(You are strongly encouraged to make updates to the storm water management plan and Annual Reports available for review/comment at the local level prior to submittal to LDEQ.)*

(5) identify the target audiences for your public involvement program. You are encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others.

(6) identify and describe the types of public involvement activities included in your program. Where appropriate, consider the following types of public involvement activities:

i. Citizen representatives on a storm water management panel;
ii. Public hearings;
iii. Working with citizen volunteers willing to educate others about the program; and
iv. Volunteer monitoring or stream/beach clean-up activities.

(7) identify who is responsible for the overall management and implementation of your storm water public involvement/participation program and, if different, who is responsible for each of the BMPs identified for this program.

(8) describe how you evaluate the success of this minimum control measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

(1) use storm water educational materials locally developed or provided by: i) the EPA (refer to http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=3), ii) the LDEQ (http://www.deq.louisiana.gov/portal/tabid/2953/Default.aspx), iii) environmental, public interest or trade organizations (refer to http://www.stormwaterauthority.org/assets/EPA%20Public%20Involvement%20&%20Participation.pdf), and/or iv) other MS4s; and

(2) include the public in developing, implementing, and reviewing your storm water management program and make efforts to reach out and engage all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local storm water management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts. (Citizens should obtain approval where necessary for lawful access to monitoring sites.)

3. Illicit Discharge Detection and Elimination

a. You must:

(1) develop, implement and enforce a program to detect and eliminate illicit discharges (as defined at LAC 33:IX.2511.B.2) into your small MS4;

(2) develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the State that receive discharges from those outfalls;

(3) to the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into your storm sewer system and implement appropriate enforcement procedures and actions;

(4) develop, if not already completed, and implement a plan to detect and address non-storm water discharges, including illegal dumping, to your system;

(5) inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;

(6) **address the following categories of non-storm water discharges or flows only if you identify them as significant contributors of pollutants to your small MS4**: water line flushing, landscape irrigation, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), uncontaminated pumped ground water, incidental discharges of potable water (e.g. drinking fountain overflows), foundation drains, air conditioning condensate, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering runoff, water from individual residential car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, residual street wash water, and discharges or flows from fire fighting activities (excludes predictable and controllable discharges from a fire fighting training facility), where such discharges will not cause a problem either due to the nature of the discharge or controls the MS4 places on the discharge. Significant contributors of pollutants from the above sources may require additional controls, such as enhanced public education, ordinances, or other regulatory mechanisms (to be implemented by the operator); and

(7) **develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges.** These non-storm water discharges must not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the Municipal Separate Storm Sewer System, because of either the nature of the discharges or conditions you have established for allowing these

discharges to your MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.). You must document in your SWMP any local controls or conditions placed on the discharges. You must include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to your MS4.

b. You must identify each individual BMP and its corresponding measurable goal that you use in your illicit discharge detection and elimination program that is designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

(1) describe how you will develop or have developed a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information you used for the maps, and how you plan to verify the outfall locations with field surveys. Permittees that are required to have completed their storm sewer maps must describe how they developed this map and how the map will be regularly updated.

(2) describe the mechanism (ordinance or other regulatory mechanism) you use to effectively prohibit illicit discharges into the MS4 and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so in accordance with Part IV.C. Permittees that are required to have already developed an ordinance or other regulatory mechanism must include a copy of the relevant section(s) with your SWMP.

(3) describe how you ensure t that your illicit discharge ordinance (or other regulatory mechanism) is implemented through appropriate enforcement procedures and actions.

(4) describe your plan to detect and address illicit discharges to your system, including discharges from illegal dumping and spills. Your plan must include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. Your plan must also address on-site sewage disposal systems that flow into your storm drainage system. Your description must address, at a minimum, the following:

i. Procedures for locating priority areas, which includes areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example), or ambient sampling to locate impacted reaches.

ii. Procedures for tracing the source of an illicit discharge, including the specific techniques you will use to detect the location of the source.

iii. Procedures for removing the source of the illicit discharge.

iv. Procedures for program evaluation and assessment.

(5) describe how you inform public employees, businesses, and the public of hazards associated with illegal discharges and improper disposal of waste. Include in your description how this plan will coordinate with your public education minimum measure and your pollution prevention/good housekeeping minimum measure programs.

(6) identify who is responsible for overall management and implementation of your storm water illicit discharge detection and elimination program and, if different, who is responsible for each of the BMPs identified for this program.

(7) describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

c. Recommendations:

(1) use storm water educational materials locally developed or provided by: i) the EPA (refer to http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=3), ii) the LDEQ (http://www.deq.louisiana.gov/portal/tabid/2953/Default.aspx), iii) environmental, public interest or trade organizations (refer to http://cfpub.epa.gov/npdes/stormwater/casestudies.cfm and http://cwp.org.master.com/texis/master/search/+/form/New_IDDE.html), and/or iv) other MS4s; and

(2) 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.

4. Construction Site Storm Water Runoff Control

a. You must:

(1) Develop, implement, and enforce a program to reduce pollutants in any storm water runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of

a larger common plan of development or sale that would disturb one acre or more. The extent to which the program will rely upon the LPDES Phase II Construction regulation should be specified.

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

(a) an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;

(b) requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(c) requirements for construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout (see EPA guidance at http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=117), chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(d) procedures for site plan review which incorporate consideration of potential water quality impacts;

(e) procedures for receipt and consideration of information submitted by the public; and

(f) procedures for site inspection and enforcement of control measures.

(3) You must identify each individual BMP and its corresponding measurable goal that you use in your construction site storm water runoff control program that is designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

(a) The mechanism (ordinance or other regulatory mechanism) you use to require erosion and sediment controls at construction sites and why you chose that mechanism. If you need to develop this mechanism, describe your plan and a schedule to do so in accordance with Part IV.C. Permittees that are required to have already developed an ordinance or other regulatory mechanism must include a copy of the relevant section(s) with your SWMP.

(b) Your mechanismsto ensure compliance with your erosion and sediment control mechanisms, including the sanctions and enforcement actions. Describe your procedures for determining which sanctions will apply to which infractions (such as your enforcement escalation process). Possible sanctions include non-monetary penalties (such as stop work orders and/or permit denials for non-compliance), as well as monetary penalties such as fines and bonding requirements.

(c) Your requirements for construction site operators to implement appropriate erosion and sediment control BMPs and to control waste at construction sites that may cause adverse impacts to water quality. Examples of such waste might include discarded building materials, concrete truck washout, chemicals, litter and sanitary waste.

(d) Your procedures for site plan review, including the review of pre-construction site plans, which incorporate consideration of potential water quality impacts. Describe your procedures and the rationale for how you will identify certain sites for site plan review, if your site plan review does not include the review of all pre-construction site plans.

(e) Your procedures for receipt and consideration of information submitted by the public. Consider coordinating this requirement with your public education program.

(f) Your procedures for site inspection and enforcement of control measures, including how you will prioritize sites for inspection. Include procedures for site inspections and enforcement of control measures including steps to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.

(g) Who is responsible for overall management and implementation of your construction site storm water control program and, if different, who is responsible for each of the BMPs identified for this program.

(h) Describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

(1) use storm water educational materials locally developed or provided by: the EPA (refer to http://cfpub1.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=4, http://www.epa.gov/smartgrowth/parking.htm, http://www.nrdc.org/water/pollution/rooftops/contents.asp, http://www.epa.gov/smartgrowth/stormwater.htm),the LDEQ, environmental, public interest or trade organizations, and/or other MS4s; and

(2) provide educational and training measures for construction site operators, including requiring implementing a storm water pollution prevention plan (SWPPP) at construction sites within your jurisdiction that discharge into your system.

5. Post-construction Storm Water Management in New Development and Redevelopment

a. You must:

(1) develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program must ensure that controls are in place that would prevent or minimize water quality impacts.

(2) develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community;

(3) use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law; and

(4) ensure adequate long-term operation and maintenance of BMPs.

b. You must identify each individual BMP, and its corresponding measurable goal, that you use in your post-construction storm water management program that is designed to minimize the discharge of pollutants into your MS4. You must include, at a minimum, the following information:

(1) A description of your program to address storm water runoff from new development and redevelopment projects. Include in your description any specific priority areas for this program.

(2) A description of how your program isspecifically tailored for your local community, how it will minimize water quality impacts, and how it is designed to attempt to maintain pre-development runoff conditions.

(3) A description of any non-structural BMPs in your program, which may include, but is not limited to:

i. Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;

ii. Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure;

iii. Education programs for developers and the public about project designs that minimize water quality impacts; and

iv. Other measures such has minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.

(4) Any structural BMPs in your program, which may include, but is not limited to:

i. Storage practices such as wet ponds and extended-detention outlet structures;

ii. Filtration practices such as grassed swales, bioretention cells, sand filters and filter strips; and

iii. Infiltration practices such as infiltration basins and infiltration trenches.

(5) Describe the mechanism (ordinance or other regulatory mechanism) you use to address post-construction runoff from new development and why did you choose that mechanism. If you need to develop a mechanism, describe your plan and a schedule to do so in accordance with Part IV.D. If your ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with your program.

(6) Describe how you ensure the long-term operation and maintenance (O&M) of your selected BMPs. Options to help ensure that future O&M responsibilities are clearly identified include an agreement between you and another party such as the post-development landowners or regional authorities.

(7) Describe who is responsible for overall management and implementation of your post-construction storm water management program and, if different, who is responsible for each of the BMPs identified for that control measure.

(8) Describe how you evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMPs.

c. Recommendations:

(1) use storm water educational materials locally developed or provided by: i) the EPA (refer to http://cfpub1.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=4, http://www.epa.gov/smartgrowth/parking.htm, http://www.nrdc.org/water/pollution/rooftops/contents.asp, and http://www.epa.gov/smartgrowth/stormwater.htm), ii) the LDEQ, iii) environmental, public interest or trade organizations, and/or iv) other MS4s;

(2) when choosing appropriate BMPs, participate in locally-based watershed planning efforts, which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, LDEQ recommends that you adopt a planning process that identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures;

(3) when developing your program, consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality. In addition to assessing these existing documents and programs, you should

provide opportunities to the public to participate in the development of the program;

(4) ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with preconstruction BMP design; failure to construct BMPs in accordance with the agreed upon pre-construction design; and ineffective post-construction operation and maintenance of BMPs; and

(5) ensure that your requirements be responsive to the constantly changing storm water technologies, developments or improvements in control technologies.

6. Pollution Prevention/Good Housekeeping for Municipal Operations

a. You must:

(1) develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

(2) using training materials that are available from EPA, LDEQ, or other organizations, your program must include employee training to prevent and/or reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance.

(3) Describe how your operation and maintenance program is designed to prevent or reduce pollutant runoff from your municipal operations. Your program must specifically list the municipal operations that are impacted by this operation and maintenance program.

(4) Include a list of industrial facilities you own or operate that are subject to the LPDES Multi-Sector General Permit (MSGP) or individual LPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to your MS4. Include the LPDES permit number or a copy of the industrial NOI for each facility.

(5) Describe any government employee training program you will use to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new

construction and land disturbances, and storm water system maintenance.

i. Describe any existing available materials you plan to use.
ii. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum control measure.

(6) Your program description must specifically address the following areas:

i. Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to your MS4.
ii. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas you operate.
iii. Procedures for the proper disposal of waste removed from your MS4 and your municipal operations, including dredge spoil, accumulated sediments, floatables, and other debris.
iv. Procedures to ensure that flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices.

(7) Describe who is responsible for overall management and implementation of your pollution prevention/good housekeeping program and, if different, who is responsible for each of the BMPs utilized in your pollution prevention/good housekeeping program.

(8) Describe how you evaluate the success of this minimum control measure, including how you selected the measurable goals for each of the BMPs.

b. Recommendations:

(1) use storm water educational materials locally developed or provided by: i) the EPA (refer to http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=6, http://www.epa.gov/smart_growth/parking.htm, http://www.nrdc.org/water/pollution/rooftops/ contents.asp, and http://www.epa.gov/smartgrowth/stormwater.htm), ii) the LDEQ, iii) environmental, public interest or trade organizations, and/or iv) other MS4s.

E. Reviewing and Updating Your Storm Water Management Program

You must do an annual review of your Storm Water Management Program in conjunction with preparation of the annual report required under Part V.C. You may change your Storm Water Management Program during the term of the permit in accordance with the following procedures:

1. Changes adding (but not subtracting or replacing) components, controls, or requirements to the Storm Water Management Program may be made at any time. For example, including new public education components or increasing the frequency of outfall inspections would be considered an addition. You must update your storm water management plan to include the changes. All changes shall be reported in the next annual report that is prepared and submitted to LDEQ.

2. Changes replacing an ineffective or unfeasible BMP identified in the Storm Water Management Program with an alternate BMP may be made at any time. For example, revising an ordinance or changing the parameters and sampling frequencies in the monitoring program would be considered a replacement. You must update your storm water management plan to incorporate the changes. All changes shall be reported in the next annual report that is prepared and submitted to LDEQ. Your SWMP update and annual report to LDEQ must include documentation of the following:

   (a) An analysis of why the BMP is ineffective or infeasible (including cost prohibitive),

   (b) Expectations on the effectiveness of the replacement BMP, and

   (c) An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

The Permitting Authority may require changes to the Storm Water Management Program as needed to:

1. Address impacts on receiving water quality caused, or contributed to, by discharges from the Municipal Separate Storm Sewer System;

2. Include more stringent requirements necessary to comply with new Federal statutory or regulatory requirements;

3. Include such other conditions deemed necessary by the Permitting Authority to comply with the goals and requirements of the Clean Water Act; or

4. Changes requested by the Permitting Authority must be made in writing, set forth the time schedule for you to develop the changes, and offer you the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the Permitting Authority will be made in accordance with LAC 33.IX.307, LAC 33.IX.2903, or as appropriate LAC 33.IX.2905.

You must implement the Storm Water Management Program on all new areas added to your portion of the municipal separate storm sewer system (or for which you become responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.

1. Within 90 days of a change of ownership, operational authority, or responsibility for storm water management program implementation, you must have a plan for implementing your Storm Water Management Program on all affected areas. The plan may include schedules for implementation. Information on all new annexed areas and any resulting updates required to the Storm Water Management Program must be included in the annual report.

2. Only those portions of the Storm Water Management Program specifically required as permit conditions shall be subject to the modification requirements of LAC 33.IX.307. *Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the Storm Water Management Program with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the Storm Water Management Program and not modifications to the permit.*

F. Qualifying State or Local Programs (QLP)

Any municipality, including Small MS4s, may have its construction storm water program recognized as a QLP by LDEQ. A QLP is an LDEQ-approved program that fulfills the State LPDES program requirements for small construction activities stated in Parts IV.D4 and D.5. A local program can be recognized as a QLP if it meets or exceeds the

minimum requirements outlined in the regulations (LAC 33:IX.2707.R) and the program is reviewed by LDEQ and is officially authorized as a recognized QLP. The provisions stated in LAC 33:IX.2707.R offer an opportunity to streamline administrative requirements in the storm water program by formally recognizing local construction management programs that meet or exceed the provisions in LDEQ's construction general permits. Under such a scenario, a construction site operator, responsible for a project within the jurisdiction of a recognized municipality, would follow that municipality's requirements for storm water management.

LDEQ will consider whether an MS4's construction program meets or exceeds the requirements contained in LDEQ's construction general permits and whether the MS4 has the institutional capacity to take on the delegated regulatory responsibilities when considering a municipality's proposal to have its construction program recognized as an LDEQ-approved QLP. More information related to a QLP is available on the EPA's website at http://www.epa.gov/npdes/pubs/qlp_memo.pdf.

G. Sharing Responsibility

If you are relying on another governmental entity that is regulated under LAC 33:IX.2511 of the storm water regulations to satisfy one or more of your permit obligations, you must note that fact in your NOI. This other entity must, in fact, implement the control measure(s); the measure of component thereof, must be at least as stringent as the corresponding LPDES permit requirement; and the other entity must agree to implement the control measure on your behalf.

If the other entity agrees to implement the control measure on your behalf, you must have a written acceptance of this obligation. The written agreement must be maintained as part of the description of your storm water management program. Should the other entity fail to implement the minimum control measure on your behalf, you remain liable for any discharges due to their failure to implement the minimum control measure.

If the other entity agrees to report on the minimum measure that it agrees to implement then the permittee must supply the other entity with the reporting requirements contained in Part V.C of this permit. Should the other entity fail to report in accordance with Part V.C on your behalf, you remain liable for failure to report any of the information required by Part V.C.

H. Discharges to Water Quality Impaired Waterbodies

Impaired Water Bodies Without an Established TMDL

If your MS4 discharges into a receiving water which has been listed on the LDEQ Section 303(d) List of Impaired Waters, a TMDL has not yet been approved, and the suspected source(s) of the impairment include discharges from MS4s, you must determine, within one year of the effective date of the permit, if the MS4 is a source of the pollutant(s). Monitoring for pollutants of concern is highly encouraged in order to establish the loading from the MS4, identify specific areas or sources of concern, and assess the effectiveness of the selected controls over time. If sources are identified, the permittee must develop appropriate storm water control measures or BMPs that will reduce the discharge of the pollutants of concern. You must describe in your SWMP how the BMPs and other controls selected will reduce the discharge of the pollutant(s) of concern. This discussion must specifically identify control measures and BMPs that will collectively control the discharge of the pollutants of concern to ensure that discharges will not cause or contribute to in-stream exceedances of water quality standards. Targeted BMPs shall be included in the SWMP no later than two years after the effective date of the permit. Report the progress on the implementation of the selected BMPs in your annual reports, thereafter. The MS4 operator may select one or more of the recommended control measures in the following section or develop other controls, as appropriate.

Impaired Water Bodies with an Approved TMDL

If a Waste Load Allocation (WLA) has been assigned to discharges of a particular pollutant from your MS4 to a particular basin subsegment:

1. You must include specific and measurable goals in your SWMP targeting the pollutant(s) of concern. Include details, such as identifying areas of focused effort or implementing additional control measures or BMPs that will reduce the pollutant(s) of concern. A schedule for implementing each targeted control shall be included in the SWMP.

2. The permittees shall adopt any assigned Waste Load Allocations (WLAs) as a benchmark goal in the SWMP. The benchmark goal is not a permit limit, but shall be used to measure the progress towards achieving pollutant reductions from the MS4. If the benchmark goal is met, the permittee shall maintain the

control measures, BMPs, or other pollutant reduction programs necessary to ensure the goal will continue to be met.

3. If applicable, the permittee must comply with monitoring or compliance schedules established in the TMDL.

4. The permittees shall select one or more of the following recommended controls, or develop other controls that may best achieve the pollutant reduction goals. The following storm water control measures address nutrient, dissolved oxygen, sediment, and/or bacteria impairments.

   a. Prioritize the detection and elimination of illicit discharges contributing the pollutant(s) of concern to the MS4.

   b. Implement public education measures to reduce the discharge of bacteria and nutrients contributed by pets, livestock, and zoos.

   c. Implement a public education program to reduce the discharge of nutrients from the over application of residential and commercial fertilizers.

   d. Implement programs to reduce the pollutant contributions to the MS4 from failing on-site sewage treatment systems, such as septic tanks and small package plants. Such a program could include requiring the replacement of old septic tanks, regionalization of heavily populated areas without a centralized waste treatment facility, and/or extension of existing sewage treatment lines.

   e. Implement programs to enhance the MS4's sanitary sewer systems. Such a program should address inadequate collection systems, malfunctioning lift stations, or violations of the sewage treatment plant's water discharge permit.

   f. For construction activities, require a minimum buffer zone adjacent to surface waters to reduce erosion and sediment runoff.

5. You must implement a monitoring program to determine whether the storm water controls that you have selected are adequate to meet the WLA. Each permitted MS4 must develop a monitoring program that is specific to the selected BMPs and will be an effective tool to determine if measurable goals are being met.

Document in your SWMP the reason and justification for the parameters and frequencies selected and how the monitoring program will effectively evaluate storm water controls. Monitoring programs may include, but are not limited to, the following elements:

   a. Regular visual inspections of outfalls during wet and dry weather;

   b. Regular inspections of receiving water bodies with the purpose of noting erosion or sedimentation problems;

   c. Regular inspections of storm drains, major canals, or junctions;

   d. Visual inspections of effluent samples for color, clarity, and the presence of foam, oil, debris, or noxious odors;

   e. Instantaneous (*in situ)* water quality measurements of the receiving water body, such as dissolved oxygen, temperature, pH, etc.; and

   f. Sampling and analysis of storm water discharges for pollutants of concern. The

permittee must also conduct any monitoring, including specific frequencies, required by applicable TMDLs.

6. The permittees must evaluate the effectiveness of the storm water management program and document progress towards the benchmark goal(s). The MS4 operator may utilize third party data, such as that collected by LDEQ, USGS, EPA, and volunteer organizations in the evaluation process. However, the evaluation shall not be limited to only third party data. If subsequent evaluations show that additional or modified controls are necessary to meet the WLA for a particular pollutant then you must describe the additional or modified controls that will be implemented and include a schedule for implementation. You must continue to evaluate the adequacy of the BMPs that you have implemented to meet the WLA for a particular pollutant. Make modifications to the SWMP as necessary until monitoring for a full permit cycle shows that the WLAs are being met or that the MS4 is no longer contributing to the water quality impairment.

[NOTE: You should consult the latest edition of the Louisiana Water Quality Management Plan, which is available on the LDEQ website at:

http://www.deq.louisiana.gov/portal/LinkClick.aspx?link=planning%2fWater+Quality+Management+Plan—volume+8.pdf, to determine if a Waste Load Allocation for any pollutant has been assigned to your MS4.]

Compliance with federal, state and local storm water programs revolves around the use of "best management practices" (BMPs) to manage storm water. Given the water quality and quantity benefits of smart growth at the site, neighborhood, and watershed levels, many smart growth techniques and policies are emerging as BMPs to manage storm water. Where appropriate, you are strongly encouraged to utilize principles and best management practices contained in the following publications to minimize the discharge of pollutants within watersheds:
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=124,
http://www.nrdc.org/water/pollution/storm/stoinx.asp and
http://www.epa.gov/smartgrowth/. You must document in your SWMP which smart growth practices you utilize and describe how those practices minimize the discharge of pollutants of concern to any waterbody with an established TMDL.

TMDL reports are maintained and regularly updated on the LDEQ web site at http://www.deq.louisiana.gov/portal/tabid/1563/Default.aspx .

PART V
MONITORING, RECORDKEEPING AND REPORTING

A. Monitoring

On an ongoing basis during the permit term, you must evaluate program compliance, the appropriateness of your identified best management practices, progress towards achieving your identified measurable goals, and make any necessary changes/updates to your plan. **If you discharge to a water for which a Waste Load Allocation (WLA) for a particular pollutant has been assigned to one or more of your MS4 outfalls, you are also required to develop and implement a monitoring program as described in Part IV.H.** If the permittee discharges to two or more water bodies, the monitoring requirements apply only to those outfalls located within the watershed for which the TMDL has been developed.

When conducting effluent (e.g. wet weather discharges) sampling and analysis, permitted small MS4s must comply with the following:

1. All sampling and testing shall be conducted in accordance with the test procedures approved under 40 CFR Part 136, Tables A, B, C, D, E, F, G.

2. Proper sampling techniques shall be used to ensure that analytical results are representative of pollutants in the discharge. Monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136, and in particular, Appendices A, B, and C. [LAC 33:IX.4901]

3. The flow measurement sample type for the effluent sampling shall be "estimate". Flow measurements shall not be subject to the accuracy provisions established in this permit. When collecting samples the flow value may be estimated using best engineering judgment. [LAC 33:IX.2701]

4. The permittee or designated laboratory shall have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures shall be assessed and evaluated on an on-going basis and quality control acceptance criteria shall be used to determine the validity of the data. All method specific quality control as prescribed in the method shall be followed. If quality control requirements are not included in the method, the permittee or designated laboratory shall follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136)

Standard Methods for the Examination of Water and Wastes, Sections 1020A and 1020B. General sampling protocol shall follow guidelines established in the "Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982"U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-83-124503.

5. Analytical results for each sampling event at each discharge point (outfall number) described in your monitoring program must be reported on a Discharge Monitoring Report (DMR) form (EPA No. 3320-1 or an LDEQ approved substitute). Complete one DMR form per sampling event for every outfall where a sample is collected. The DMR(s) shall be submitted to LDEQ annually with the Annual Report.

6. Retain records of all monitoring information in accordance with Part V.B of this permit.

Record Content:

Records of monitoring information shall, at a minimum, include:

a. The date, exact place, and time of inspection, sampling or measurement;
b. The individual(s) who performed the inspection, sampling or measurements;
c. The results of inspections, samplings, or measurements; and
d. Calibration records for any *in situ* instruments used, such as a Hydrolab.

Records of laboratory-analyzed samples must also include:

a. The date(s) and time(s) analyses were performed;
b. The time(s) analyses were begun;
c. The individual(s) who performed the analyses;
d The analytical techniques or methods used;
e. The results of such analyses; and
f. The results of all quality control procedures.

The "Monthly Average" concentration that is reported on the DMR form is calculated using one formula when flow is not measured as a continuous record and is calculated using a different formula when flow is measured as a continuous record or with a totalizer. The two different scenarios are described as follows:

Monthly Average (also known as Daily Average), other than for fecal coliform bacteria, discharge limitations are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

In accordance with LAC 33:IX.2503.A and B, DMRs must be signed and certified by an authorized person. Be aware the LDEQ will accept laboratory results only from "LDEQ accredited" laboratories.

B. Recordkeeping

You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the LPDES permit, and records of all data used to complete the application (NOI) for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended by request of the permitting authority at any time.

You must submit copies of DMRs to LDEQ as described in Parts V.A and V.C. You should not submit copies of other records to the permitting authority unless you are specifically asked to do so. You must retain a description of the Storm Water Management Program required by this permit (including a copy of the permit language) at a location accessible to the Permitting Authority. You must make your records, including the Notice of Intent (NOI) and the description of the Storm Water Management Program, available to the public if you receive a written request to do so.

C. Annual Report Requirements

You must submit annual reports to LDEQ by March 10 for the preceding calendar year. The Annual Reports must be postmarked no later than March 10. Your report must include:

1. The status of compliance with permit conditions, an assessment of the appropriateness of your identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures;

2. Results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

3. A summary of the storm water activities you plan to undertake during the next reporting cycle (including an implementation schedule);

4. Proposed changes to your Storm Water Management Program, including changes to any BMPs or any identified measurable goals that apply to the program elements; and

5. Notice that you are relying on another government entity to satisfy some of your permit obligations (if applicable).

D. Reporting: Where and When to Submit

1. Signed copies of DMRs (**if** required under Part IV.H), the Annual Report required by Part V.C, and any other reports required herein, shall be mailed to:

Permit Compliance Unit
Office of Environmental Compliance Louisiana
Department of Environmental Quality P. O. Box
4312
Baton Rouge, LA 70821-4312

You must submit these reports to LDEQ by March 10 for the preceding calendar year.

2. Requests concerning updates to the Storm Water Management Program, changes in monitoring locations, or application for an individual permit shall be submitted to:

Water Permits Division Office of
Environmental Services Department
of Environmental Quality P. O. Box
4313
Baton Rouge, LA 70821-4313

PART VI
STANDARD PERMIT CONDITIONS

A. Duty to Comply

1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Violations of Permit Conditions.

LA. R.S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R.S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES program or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program.

Any person may be assessed an administrative penalty by the State Administrative Authority under LA R.S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act. (Penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

a. Criminal Penalties

i. Negligent Violations. The Louisiana Revised Statutes LA. R.S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the Secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the Secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $50,000 per day of violation, or imprisonment of not more than two years, or both.

ii. Knowing Violations. The Louisiana Revised Statutes LA. R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program

approved under the LPDES is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine or not more than $100,000 per day of violation, or imprisonment of not more than six years, or both.

iii. Knowing Endangerment. The Louisiana Revised Statutes LA. R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any provision of the LPDES, or any order issued by the Secretary under the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES by the Secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both. A person, which is an organization, shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

iv. False Statements. The Louisiana Revised Statutes LA. R.S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall upon conviction, be subject to a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this subsection, he shall be subject to a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

b. Civil Penalties

The Louisiana Revised Statutes LA. R.S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the Secretary, an Assistant Secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than $32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

B. Continuation of the Expired General Permit

This permit expires five years after the effective date. If the permit is not reissued or replaced prior to the expiration date, this Office will administratively extend the permit to discharge, for permittees that were covered prior to the expiration date, until such time that a new general permit is issued. Upon reissuance or replacement of this permit, the permittee must comply with the requirements for obtaining coverage under the new permit to maintain authorization to discharge.

C. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

E. Duty to Provide Information

The permittee shall furnish to the State Administrative Authority, within a reasonable time, any information which the administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the State Administrative Authority, upon request, copies of records required to be kept by this permit.

F. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in the Notice of Intent or in any other report to the State Administrative Authority, the permittee shall promptly submit such facts or information.

G. Signatory Requirements

All storm water management plans, storm water pollution prevention plans, reports, certifications or information either submitted to the State Administrative Authority or that this permit requires be maintained by the permittee, shall be signed and certified.

All reports required by the permit and other information requested by the State Administrative Authority shall be signed by a person described in LAC 33:IX.2503.A, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in LAC 33:IX.2503.A;

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position); and,

3. The written authorization is submitted to the State Administrative Authority.

4. **Changes to authorization**. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

5. **Certification.** Any person signing documents under Part VI.G shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

H. Laboratory Accreditation

LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:

1. Submitted on behalf of any facility, as defined in La. R.S.30:2004;
2. Required as part of any permit application;
3. Required by order of the department;
4. Required to be included on any monitoring reports submitted to the department;
5. Required to be submitted by contractor
6. Otherwise required by department regulations.

The department laboratory accreditation program, Louisiana Environmental Laboratory Accreditation Program (LELAP) is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not (LELAP) accredited will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e. data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

Regulations on the Louisiana Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation are available on the department website located under DIVISIONS Æ PERMIT SUPPORT SERVICES Æ LABORATORY ACCREDITATION at the following link:

http://www.deq.louisiana.gov

Questions concerning the program may be directed to (225) 219-3247.

I. Penalties for Falsification of Reports

The Louisiana Revised Statutes LA.R.S.30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall, upon

conviction, be subject to a fine of not more than $10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this subsection, he shall be subject to a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

J. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

K. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private or public property, nor any infringement of federal, state, or local laws or regulations.

L. Severability

If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

M. Requiring an Individual Permit or an Alternative General Permit

1. The State Administrative Authority may require any person authorized by this permit to apply for and/or obtain either an individual LPDES permit or an alternative LPDES general permit. Any interested person may petition the State Administrative Authority to take action under this paragraph. Where the State Administrative Authority requires a discharger authorized to discharge under this permit to apply for an individual LPDES permit, the State Administrative Authority shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of issuance or denial of the individual LPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate unless otherwise specified by the State Administrative Authority. Applications shall be submitted as indicated in Part II of this permit. The State Administrative Authority may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual LPDES permit

application as required by the State Administrative Authority under this paragraph, then the applicability of this permit to the individual LPDES permittee is automatically terminated at the end of the day specified by the State Administrative Authority for application submittal.

2. Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of LAC 33:IX.2515.B.3.c, with reasons supporting the request, to the State Administrative Authority at the address indicated in Part II.C of this permit. The request may be granted by issuance of an individual permit or an alternative general permit if the reasons cited by the permittee are adequate to support the request.

3. When an individual LPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative LPDES general permit, the applicability of this permit to the individual LPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual LPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative LPDES general permit, the applicability of this permit to the individual LPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the State Administrative Authority.

N. State Environmental Laws

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

2. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

O. Proper Operation and Maintenance

1. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the

conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

P. Inspection and Entry

Upon the presentation of credentials and other documents as may be required by law, the permittee shall allow the State Administrative Authority, the EPA**,** or an authorized representative (including an authorized contractor acting as a representative of the Administrator), or, in the case of a construction site which discharges through a municipal separate storm sewer, an authorized representative of the municipal operator of the separate storm sewer receiving the discharge, to do any of the following:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit. Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action;

2. Have access to and copy at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

Q. Upset Conditions

1. Upset - an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part VI.P.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

3. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii and Part III.C.1, III.C.2, and III.C.3.; and

d. The permittee complied with any remedial measures required by Part III.A.

4. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

R. Anticipated Noncompliance

The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted small MS4 or activity which may result in noncompliance with permit requirements.

S. Bypass of Treatment Facilities

1. ***Bypass***. The intentional diversion of waste streams from any portion of a treatment facility.

2. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section S.3 and S.4 of these standard conditions.

3. Notice

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water Permits Division, if possible at least ten days before the date of the bypass.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6 (24-hour notice).

4. Prohibition of bypass

a. Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

(3) The permittee submitted notices as required by Section B.4.c of these standard conditions.

b. The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

T. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state, and in accordance with environmental regulations.

U. Prohibition for Tampering: Penalties

LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.

LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.

V. Permit Re-opener Clause

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. This Office reserves the right to reopen and modify this permit to conform to those standards necessary to maintain the water quality in order to support uses of the receiving water bodies.

W. Availability of Reports

All recorded information (completed report forms, permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public

for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

a. The name and address of any permit applicant or permittee;

b. Permit applications, permits, and effluent data;

c. Information required by LPDES application forms provided by the State Administrative Authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

X. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to the following:

(a) Noncompliance by the permittee with any condition of the permit;

(b) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

(c) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

(d) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge;

(e) Failure to pay applicable fees under the provisions of LAC 33:IX. Chapter 13; or

(f) Change of ownership or operational control.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Permit Transfers

Transfers of permit coverage **are not allowed** for this general permit.

1. Change of Coverage from One Operator to a Different Operator (e.g., a different operator assumes control over the operation and maintenance of the storm water drainage system)
   The new owner/operator must complete and file an NOI in accordance with Part I.F at least 30 days prior to taking over operational control of the facility. The permitted owner/operator shall submit a letter to the LDEQ Office of Environmental Services, Water Permits Division, requesting termination of permit coverage following the issuance of permit authorization of operational control to the new owner/operator.

2. Simple Name Changes of the Permittee (e.g., Public Entity "… Waterworks District A" changes name to "… Sewer and Waterworks District X")
   The permittee is required to submit a name change request to the Environmental Assistance Division either prior to or no later than 45 days after the name of a permitted operator changes. The request must be made on the official LDEQ form NOC-1 which is available on the LDEQ website at: www.deq.louisiana.gov/portal/Portals/0/assistance/NOC-1%20FORM%20Jan%2025,%202006.pdf. Any questions related to initiating a permit transfer should be directed to the Application Verification Group at (225) 219-3292.

   All storm water permits are non-transferable; therefore, the NOC-1 form can only be used for operator name changes for storm water permits.

   Should a new public entity become the owner and/or operator of a permitted MS4, the permittee and the new owner shall follow the procedures outlined above in Part VI.W.1 to obtain permit coverage. The public entity relinquishing permit coverage shall follow the procedures described in Part VI.W.1 to terminate permit coverage.

PART VII
DEFINITIONS

"Allowable Non-Storm Water" means a non-storm water discharge that does not need to be effectively prohibited but must be controlled to the Maximum Extent Practicable (MEP) to protect water quality under CWA 402(p)(3)(B)(iii) in order to be allowed as part of the MS4 discharge.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Clean Water Act (Water Quality Act)" - formerly the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972. Public Law 92-500; 33 U.S.C. § 1251 eg seq.; legislation which provides statutory authority for the NPDES program. Also known as the Federal Water Pollution Control Act.

"Conduit" means any channel or pipe used to transport flowing water.

"Control Measure" as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

"Conveyance" as used in this permit means the process of moving water from one place to another.

"Co-permittee" as used in this permit means a permittee to a LPDES permit that is only responsible for permit conditions relating to the discharge for which it is the operator.

"CWA" means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C §1251 et seq.

"Detention" means a storm water system that delays the downstream progress of storm water runoff in a controlled manner. This is typically accomplished using temporary storage areas and a metered outlet device.

"Discharge" when used without a qualifier, means the discharge of a pollutant.

"Discharge of Storm Water Associated with Construction Activity" as used in this permit, refers to a discharge of pollutants in storm water runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavation, etc.), construction materials or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling, etc.), or other industrial storm water directly related to the construction process (e.g., cement/concrete or asphalt batch plants) are located. (See LAC 33:IX.2511.B.14.j and LAC 33:IX.2511.B.15 for the two regulatory definitions of regulated storm water associated with construction sites).

"Erosion" occurs when land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road-building, and timber harvesting.

"Excavation" is the process of removing earth, stone, or other materials from land.

"Flood Control" is defined as the specific regulations and practices that reduce or prevent the damage caused by storm water runoff.

"Grading" is defined as the cutting and/or filling of the land surface to a desired slope or elevation.

"Illicit Connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer system.

"Illicit Discharge" is defined as any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges authorized under an LPDES permit (other than the LPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

"Incorporated place" as used in this permit means a city, town, township, or village that is incorporated under the laws of the state in which it is located.

"Industrial Activity" is defined as any activity which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant.

"Large and Medium Municipal Separate Storm Sewer System" means all municipal separate storm sewers that are either:

(i) located in an incorporated place (city) with a population of 100,000 or more as determined by the 1990 Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of LAC 33:IX); or

(ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of LAC 33:IX); or

(iii) owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the State Administrative Authority as part of the large or medium municipal separate storm sewer system.

"Louisiana Pollutant Discharge Elimination System (LPDES)" means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

"Maximum Extent Practicable (MEP)" is defined as the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA 402(p). Section 402(p)(3)(B)(iii) of the Federal Clean Water Act requires "controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34.

"MS4" is the acronym for municipal separate storm sewer system and is used to refer to either a Large, Medium or Small Municipal Separate Storm Sewer System. The term is used to refer to either the system operated by a single entity or a group of systems within an area that are operated by multiple entities.

"Municipal Separate Storm Sewer System (MS4)" is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(a) owned or operated by the United States or by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewerage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the state;
(b) designed or used for collecting or conveying storm water;
(c) which is not a combined sewer; and
(d) which is not part of a Publicly Owned Treatment Works (POTW) as defined at LAC 33:IX.2313.

"National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

"Notice of Intent (NOI)" is an application to notify the permitting authority of a facility's intention to be covered by a general permit and is the mechanism used to "register" for coverage under a general permit.

"Office" means the Office of Environmental Services within the Department of Environmental Quality.

"Open space" means an undeveloped piece of land adding ecological, scenic or recreational value to an urban area. Open spaces are generally large pervious areas that are free from paving, buildings, structures, etc., except for basic improvements that are complementary, necessary or appropriate to the use and enjoyment of the open area. Open space can be public or private. Open space includes any area that is characterized by natural scenic beauty or whose condition or quality is such that it will enhance the present or potential value of surrounding developed lands, or enhance the conservation of natural or scenic resources. Examples include forests, marshes, wildlife sanctuaries, stream corridors, wetlands, agricultural lands, pasture land, pathways, walking and riding trails, groves, wooded areas, fields, parkland, watersheds, and retention/detention areas and floodways and floodplains. Preserving open space is one of the principles of Smart Growth. Visit the EPA website to learn more about open space and principles of Smart Growth.

"Outfall" is the point where a municipal separate storm sewer discharges to waters of the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the state and are used to convey waters of the state.

"Permitting Authority" is the NPDES-authorized state agency which in the State of Louisiana is the Louisiana Department of Environmental Quality (LDEQ).

"Person" is any individual, municipality, public or private corporation, partnership, firm, the United States Government and any agent or subdivision thereof, or any other juridical person which shall include, but is not limited to, trusts, joint stock companies, associations, the State of Louisiana, political subdivisions of the state, commissions, and interstate bodies.

"Physically interconnected" means that one MS4 is connected to a second MS4 in such a way that it allows for direct discharges into the second system.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutants of Concern" include biological oxygen demand (BOD), sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation), pathogens, oil and grease, and any pollutant that has been identified as a cause of impairment in any water body to which the MS4 discharges.

"Retrofit" means the modification of storm water management systems through the construction and/or enhancement of wet ponds, wetland plantings, or other BMPs designed to improve water quality.

"Runoff" means drainage or flood discharge that leaves an area as surface flow or as pipeline flow, or drainage or flood discharge that has reached a channel or pipeline by either surface or sub-surface routes.

"Sanitary Sewer" is a system of underground pipes that carries sanitary waste or process wastewater to a treatment plant.

"Sediment" is defined as soil, sand, and minerals washed from land into water, usually after rain. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

"Site Plan" means a graphical representation of a layout of buildings and facilities on a parcel of land.

"Site Runoff" means any drainage or flood discharge that is released from a specified area.

"Small Municipal Separate Storm Sewer System (Small MS4)" is defined at 40 CFR 122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States, but is not defined as a "large" or "medium" municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. This term does not include separate storm sewers in very discrete areas, such as individual buildings.

"Smart Growth Principles": (1) Create a range of housing opportunities and choices; (2) Create walkable neighborhoods; (3) Encourage community and stakeholder collaboration; (4) Foster distinctive, attractive places with a strong sense of place; (5) Make development decisions predictable, fair and cost effective; (6) Mix land use; (7) Preserve open space, farmland, natural beauty, and critical environmental areas; (8) Provide a variety of transportation choices of smart growth; (9) Strengthen and direct development toward existing communities; and (10) Take advantage of compact building design.

"Stakeholder" means an entity that holds a special interest in an issue or program -- such as the storm water program -- since it is or may be affected by it.

"State Administrative Authority" means the Secretary of the Department of Environmental Quality or his designee or the appropriate assistant secretary or his designee.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Associated with Industrial Activity" is defined at LAC 33:IX.2511.B.14 and incorporated here by reference.

"Storm Water Discharge Associated with Small Construction Activity" is defined at LAC 33:IX.2511.B.15. This includes discharges of storm water from construction activities including clearing, grading and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one acre but less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

"Storm Water Management" is defined as functions associated with planning, designing, constructing, maintaining, financing, and regulating the facilities (both constructed and natural) that collect, store, control, and/or convey storm water.

"Storm Water Management Program (SWMP)" refers to a comprehensive program to manage the quality of storm water discharged from the municipal storm sewer system. The storm water management program required by this permit must include the minimum control measures described in LAC 33:IX.2523.B and satisfy all of the requirements set forth in LAC 33:IX.2523.

"Storm Water Pollution Prevention Plan (SWPPP)" is a plan that describes a process whereby a facility thoroughly evaluates potential pollutant sources at a site and selects and implements appropriate measures designed to prevent or control the discharge of pollutants in storm water runoff.

"Surface Water" is defined as all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, wetlands, swamps, marshes, water sources, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction that are not part of a treatment system allowed by state law, regulation, or permit.

"Total Maximum Daily Loads (TMDLs)" are water quality assessments that determine the source or sources of pollutants of concern for a particular waterbody, consider the maximum amounts of pollutants the waterbody can assimilate, and then allocate to each source a set level of pollutants that it is allowed to discharge (i.e., a "wasteload allocation").

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Urban Runoff" is storm water from urban areas, which tends to contain heavy concentrations of pollutants from urban activities.

"Urbanized Area (UA)" is a Bureau of the Census determination of a central place (or places) and the adjacent densely settled surrounding area -- urban fringe -- that together have a minimum residential population of 50,000 people and an overall population density of 1,000 people/square mile. It is a calculation used by the Bureau of the Census to determine the geographic boundaries of the most heavily developed and dense urban areas.

"Waste Load Allocation (WLA)" means that portion of the assimilative capacity of the receiving water apportioned to a specific discharger in such a way that water quality standards are maintained under design conditions.

"Waters of the State" for the purposes of the Louisiana Pollutant Discharge Elimination System, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from three miles into the Gulf of Mexico. For purposes of the LPDES, this includes all surface waters that are subject to the ebb and flow of the tide, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as Waters of the United States in 40 CFR 122.2, and tributaries of all such waters. Waters of the State does not include wastewater treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.

"Watershed" is that geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

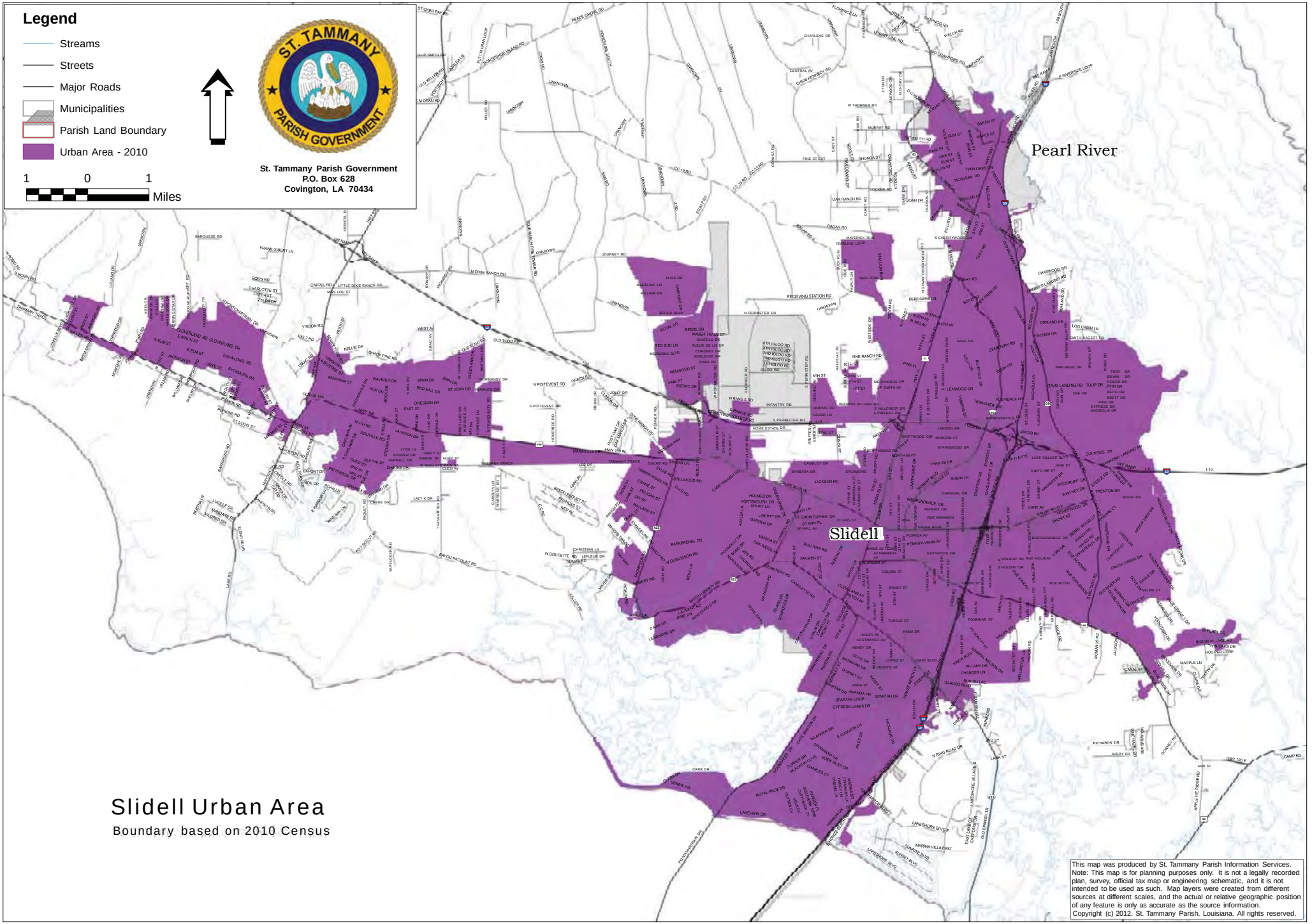
"Wet Weather Discharge" or "Storm Water Discharge", for monitoring purposes, is a discharge of storm water resulting from a storm event that is greater than 0.1 inch and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area.

"You" and "Your" as used in this permit is intended to refer to the permittee, the operator, or the discharger as the context indicates and that party's responsibilities (e.g., the city, the county, the flood control district, and U.S. Air Force, etc.)

Appendix B

Urbanized Area Stormwater Maps

(Maps produced by St. Tammany Parish Government)


Legend
Streams
Streets
Major Roads
Municipalities
Parish Land Boundary
Urban Area - 2010
1 0 1
Miles
ST. TAMMANY PARISH GOVERNMENT
St. Tammany Parish Government
P.O. Box 628
Covington, LA 70434
Pearl River
Slidell
Slidell Urban Area
Boundary based on 2010 Census
This map was produced by St. Tammany Parish Information Services. Note: This map is for planning purposes only. It is not a legally recorded plan, survey, official tax map or engineering schematic, and it is not intended to be used as such. Map layers were created from different sources at different scales, and the actual or relative geographic position of any feature is only as accurate as the source information.
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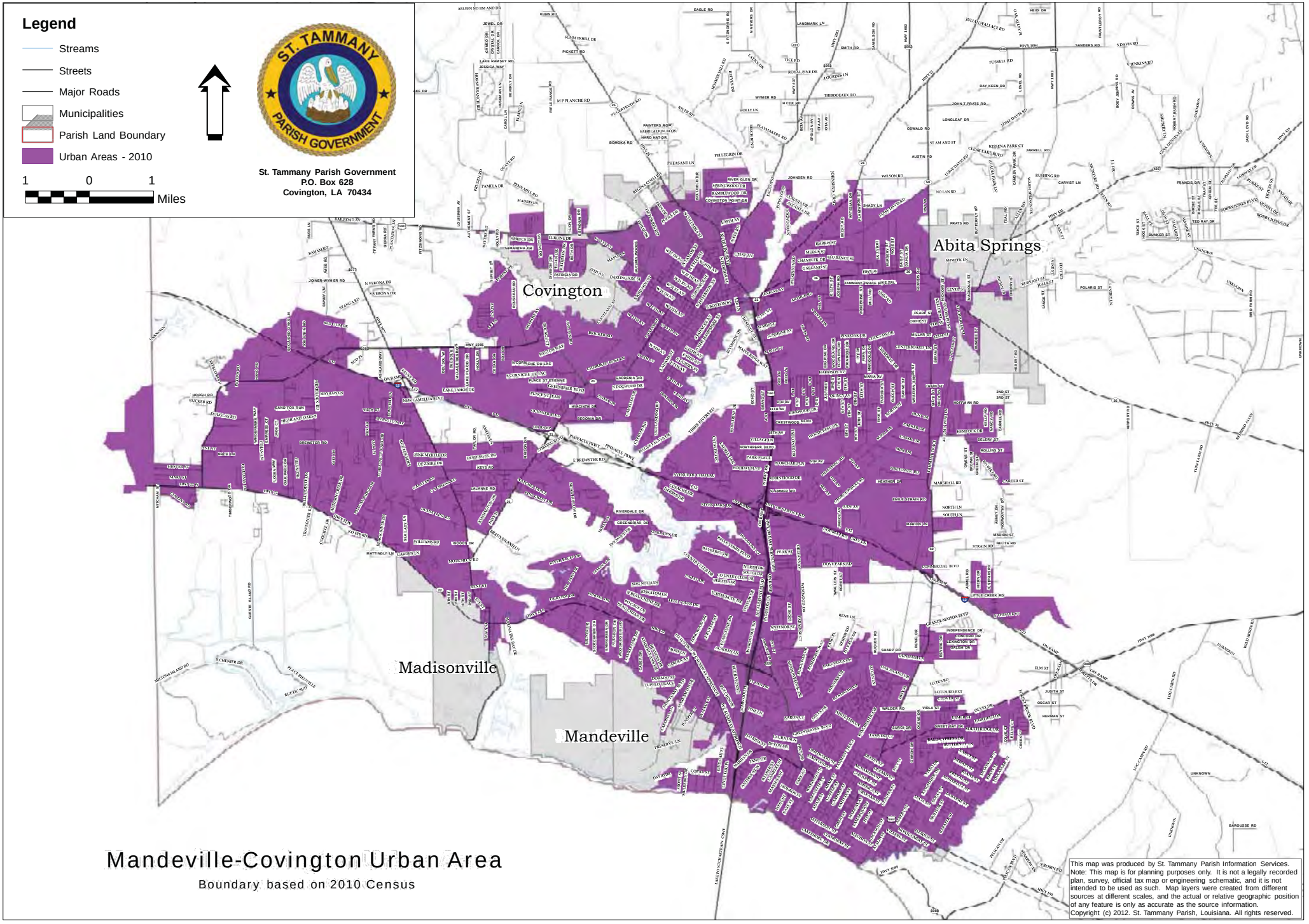
Legend
Streams
Streets
Major Roads
Municipalities
Parish Land Boundary
Urban Areas - 2010
1 0 1
Miles
ST. TAMMANY PARISH GOVERNMENT
St. Tammany Parish Government
P.O. Box 628
Covington, LA 70434
Abita Springs
Covington
Madisonville
Mandeville
Mandeville-Covington Urban Area
Boundary based on 2010 Census
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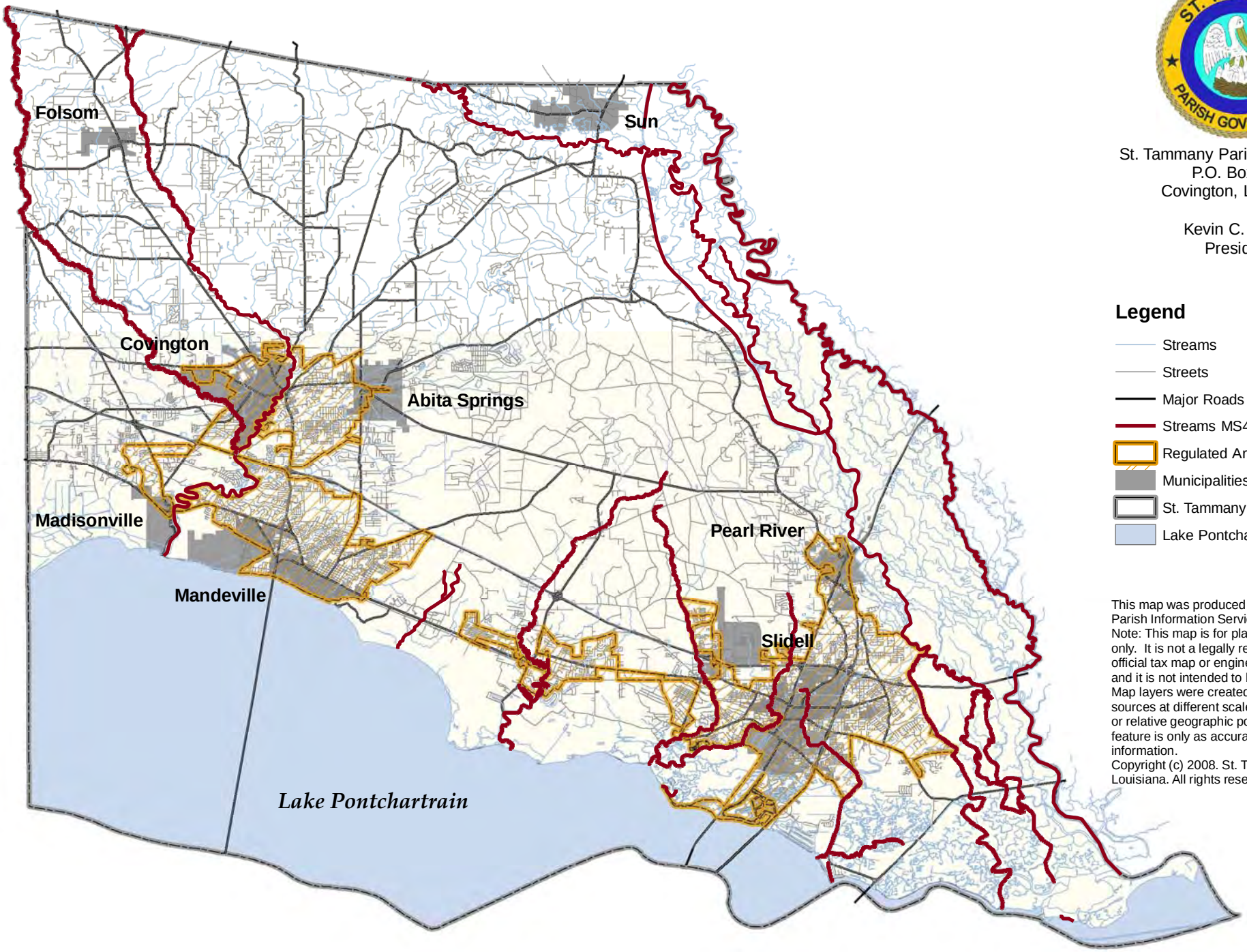
Impaired Streams and MS4 Regulated Areas



St. Tammany Parish

St. Tammany Parish Government
P.O. Box 628
Covington, LA 70434

Kevin C. Davis,
President

Legend

- Streams
- Streets
- Major Roads Impaired
- Streams MS4
- Regulated Areas
- Municipalities
- St. Tammany Parish Boundary
- Lake Pontchartrain

This map was produced by St. Tammany Parish Information Services.
Note: This map is for planning purposes only. It is not a legally recorded plan, survey, official tax map or engineering schematic, and it is not intended to be used as such. Map layers were created from different sources at different scales, and the actual or relative geographic position of any feature is only as accurate as the source information.

Appendix C

Storm Sewer System & Site Location Map

(Produced by St. Tammany Parish)

St. Tammany Parish
Storm Sewer Discharge Map

ID	NAME	LONGITUDE	LATITUDE
1	Tcefuncte River	-90.16112	30.37691
2	Bayou Chinchuba	-90.1178	30.3666
3	Bayou Castine	-90.06081	30.34855
4	Cane Bayou	-90.01827	30.3207
5	Bayou Lacombe	-89.94857	30.260201
6	East Pearl River	-89.64954	30.16212
7	Pearl River	-89.52783	30.18816
8	Salt Bayou	-89.76196	30.19229
9	Eden Isles	-89.79703	30.21317
10	North Shore Beach	-89.85711	30.23689
11	Bayou Bonfouca	-89.86433	30.2503

Legend

- Storm Sewer Discharge
- Major Roads
- Streams
- Parish Boundary

5 0 5 Miles

N

Appendix D
TMDL Action Plan

Implementing TMDLs in St Tammany Parish sMS4

"Green & Grey Infrastructure for a Cleaner, Greener STP"

E. deEtte Smythe, PhD

LA Urban Stormwater Coalition

October 1, 2013

Introduction/Justification

Since 2005, significant regulatory pressure has been applied to parish government to address environmental issues while providing greater number of services to a larger population

With fewer, more competitive funding sources the parish must:

- Improve drainage without flooding vulnerable downstream areas
- Protect against coastal surge & erosion
-
- Protect critical & sensitive wetland areas
- Assure water quality improvements in all parish watersheds

TMDLs established on parish waterways have created an onerous & immediate change in parish Wastewater Regionalization Plan

- Parish public health focus to sewer subdivisions superseded by TMDL-focus to sewer businesses
- Draconian cuts to permit limits for 600 businesses and subdivisions
- Severe financial hardships from costly upgrades and retrofits required to meet new limits
- Unachievable timeline for implementation

USACE Wetland mitigation costs & permitting difficulties

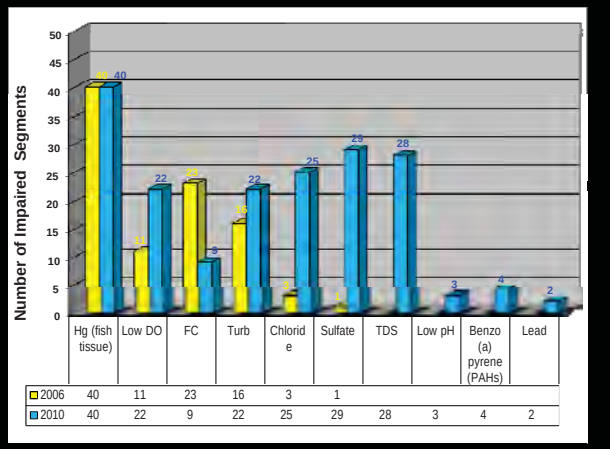
- Associated with projects that result in unavoidable impacts to wetlands
- Mitigation costs due to MCM are greatly increased
- Permit review is routinely in excess of six months

The DRIVER: Water Quality Impairments

EPA 303(d) List of Impaired Waterbodies (2006–2010)

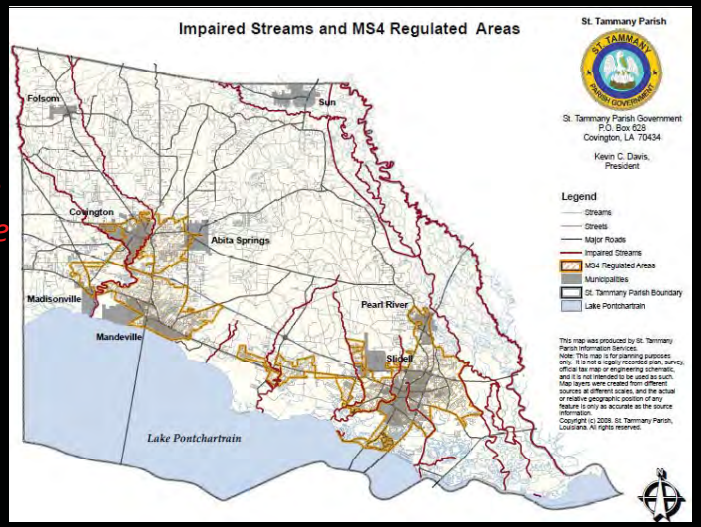
Dissolved Oxygen Impairments in all watersheds from:

- Individual Sewer Systems
- Construction & Development
- Illicit Discharges



The VEHICLE for WQ Improvement: STP MS4 Permit

LDEQ Multiple Separate Storm Sewer permit (MS4)



The GOAL:
Water Quality Improvement

the TMDL Process

¾ Calibration Model – Current Conditions

¾ TMDL Model – Projection to "worst case" conditions

TMDL = Allowable quantity of pollutant to meet
…"pollutant budget"

- ¾ WLA for point sources
- ¾ LA for Nonpoint sources (Headwater, runoff, resuspended material)

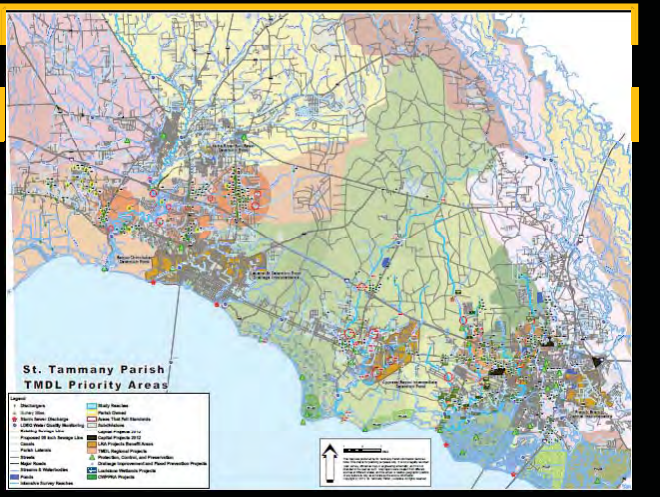
37 TMDLs Prepared by EPA & LDEQ for STP Impaired Waterbodies

Subsegment	Waterbody	Impairment
40802	Tchefuncte River	BOD (13)
40803		
40901	Bayou Lacombe	
40902		
40903	Bayou Cane	
40904		
40905	Bayou Liberty	
40906	Bayou Paquet	
40907	Bayou Vincent	
40908	Bayou Bonfouca	
90105	Pearl River Navigation Canal	
90204		
90207	Middle & West Middle River	
40909	W-14 Diversion Canal	Fecal Coliform (4)
40910	Salt Bayou	
90101	Pearl River	
90207	Middle & West Middle River	

40801	Tchefuncte River	Mercury (13)
40905	Bayou Liberty	
40906	Bayou Paquet	
90101	Pearl River	
90107		
90102	East Pearl River	
90103		
90105	Pearl River Navigation Canal	
90204		
90106	Holmes Bayou	
90201	West Pearl River	
90205	Wilson Slough	
90207	Middle & West Middle River	
90105	Pearl River Navigation Canal	Nitrate (3)
90204		
90207	Middle & West Middle River	
40903	Bayou Cane	TSS
90106	Holmes Bayou	Turbidity (3)
90201	West Pearl River	
90202	Morgan River	
Total		**37**

What we found out about STP
aka "the DO TMDL Effect"

- 530+ LPDES dischargers impacted in STP
- Five significant areas of impact "Clusters"
- 35 "hot spots" outside significant areas of impact

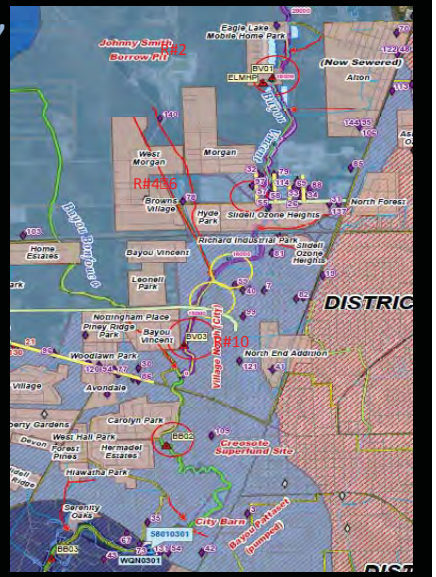


Point & Nonpoint Source LOADS Create DO "Hot Spots"

"Hot spots" – (Red Circles)

Failed sites usually located near
- Multiple Point Sources
- Unsewered S/Ds

Failed sites characterized by HIGH Nonpoint Source loads in TMDL models



The "DO TMDL Effect"on STP Dischargers

Drastic reduction of discharge limits for LPDES permittees

- Distinct areas where loadings must be reduced
- "No Parish Action" will severely impact permittees in the next permitting cycle

LDEQ Subseg	Watershed	Permitted Dischargers	Total Permitted GPD
40802 & 40803	Lower Tchefuncte, Ponchitolawa, Tete L'Ours, DeZaire (Dissolved Oxygen)	211	4,347,327
40901	Bayou Lacombe (Dissolved Oxygen)	61	129,641
40902	Cypress Bayou & Big Branch (Dissolved Oxygen)	17	282,979
40903	Bayou Cane (Dissolved Oxygen)	4	287,500
40905 – 40908	Bayous Liberty, Vincent, Bonfouca, Paquet (Dissolved Oxygen)	184	1,223,107
40909	W14 Canal (Fecal Coliform)	47	7,093,471
40910	Salt Bayou (Fecal Coliform)	6	37,426
	TOTALS	530	13,401,451

The DO TMDL Effect: STP Response

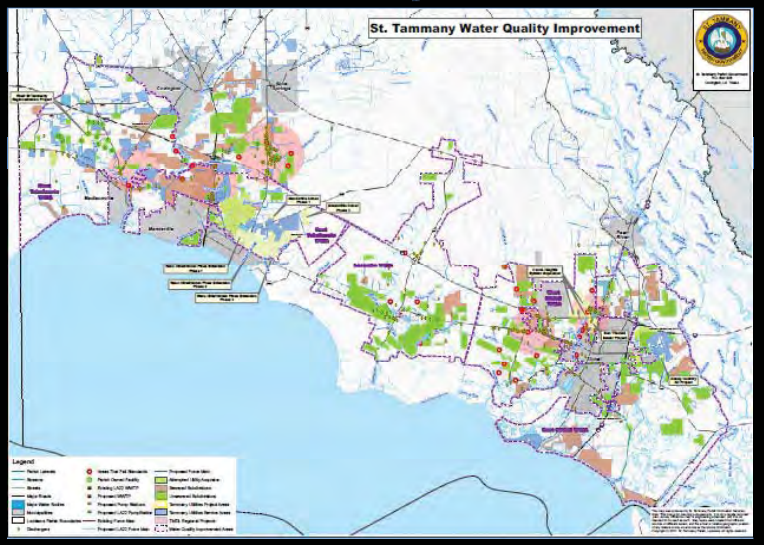
- Establish "cluster" areas where Parish will link SW p j
- Evaluate/develop strategy for reducing loadings at hot spots
- Retrofit drainage projects by adding WQ improvement components
- Review Parish laws and modify (if necessary) to meet WQ goals
- p / p g p holders and the public

Four-Pronged Approach to Water Quality Improvement

An Integrated, "green" concept

1. Wastewater
2.
3. Conservation & Mitigation
4. Education & Outreach

1. WW Consolidation Program $160.6 Million spent to date



TMDLs Bring Regional Impacts

TMDL Response – Integrate priority projects into long-term regional wastewater goals

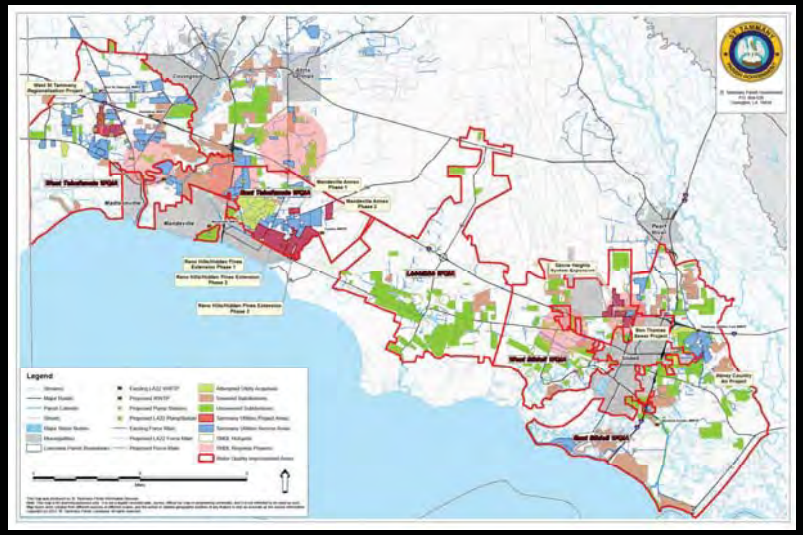
- Upsize for future residential services
- Focus on unsewered subdivisions in proximity to cluster areas
- Promote interconnections from private utility providers to reduce discharge points

Regional WW Proposed Projects
$27.1 Million Proposed

6 Priority Projects address discharger clusters and "hot spots"

Region	Watershed	Estimated Completion Date	Estimated Cost	Shovel ready	Eligible for Categorical Exclusion
LA 22 Pump Station			$3,600,000	9	9
Design		2012			
Construction		2013			
Mandeville	Tete L'Ours		$4,534,813	9	9
Feasibility		2012			
Design		2013			
Construction		2013-2014			
LA 59	Ponchitolowa		$7,900,632	x	maybe
Feasibility		2012-2013			
Design		2013-2014			
Construction		2015-216			
Highway 190	Bayou Liberty		$6,040,129	9	9
Feasibility		2012-2013			
Design		2013-2014			
Construction		2014-2015			
Brownsvillage Road	Bayou Vincent		$1,439,160	9	9
Feasibility		2012-2013			
Design		2013			
Construction		2013			
Madisonville	Tchefuncte		$3,605,551	9	9
Feasibility		2012-2013			
Design		2013			
Construction		2013-2014			
TOTALS			**$27,120,285**		

STP WW Regionalization Program



Wetland Assimilation Project
$4 Million spent

City of Mandeville & STP will increase assimilation rate to 4 MGD

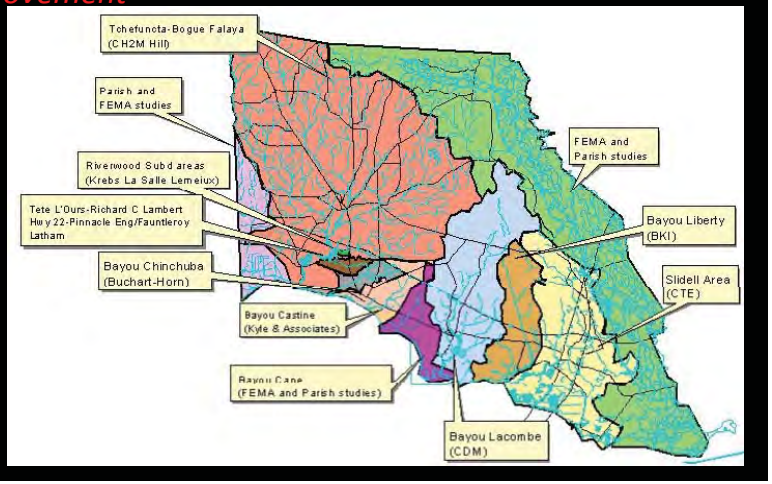
- Provides a WQ filter
- Recycles nutrients & in WW
- Allows for less stringent limits
- "Green" due to lower energy requirements for WW treatment
- Nourishes wetlands
- Enhances coastal restora

Integrates all 4 Prongs of the WQ Action Plan

2. SW Management Program

$60.4 Million spent to date

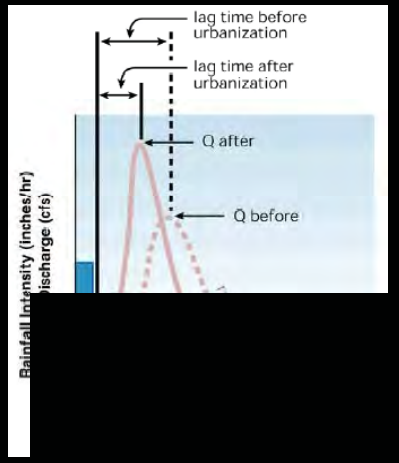
Drainage projects present opportunities for WQ improvement



Stormwater Management Plan

Originates from need to protect STP from WQ & quantity problems caused by past practices and future development

- Enhance public safety due to land development
- *Reduce flooding*
- Decrease volume and intensity of runoff
- *Improve water quality in streams*
- *Minimize loss of wetlands*
- *Improve stream habitat*
- Enhance economic growth
- Enhance aesthetics of watersheds



DRIVER: LDEQ MS4 Permit Compliance

Stormwater Ordinance requires BMPs per the MS4 permit

State

- Provides incentives for better than minimum BMP standards & innovations

All drainage projects will now give consideration to WQ improvement potential

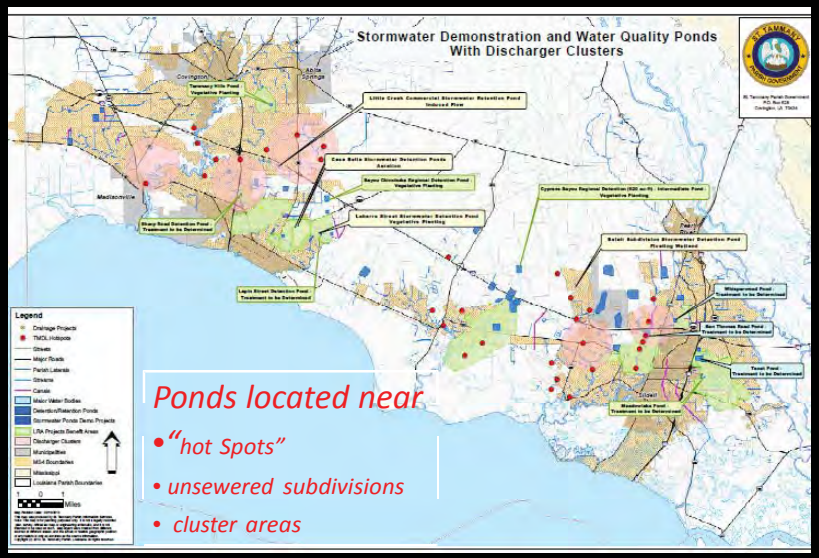
SW Demonstration Ponds & "Hot Spot" Monitoring

$0.9 Million/3 years Proposed

Retrofit 4 existing Parish-owned SW ponds with BMPS

- Monitor ponds & "hot spots" monthly & through storm events
- Ponds located near
  - ¾ "cluster" discharger areas
  - ¾"hot Spots"
  - ¾ unsewered subdivisions
- Calculate Removal Efficiencies (RE) for each BMP
  Conduct & to results
- Apply BMPs throughout the Parish

Stormwater Demonstration Ponds



Casa Bella SD

Little Bayou Castine Watershed

Aeration BMP

- 25 homes
- 2 schools (1250 students & staff)
- Sewered SD

Constituents	Casa Bella Aeration (n=46) RE, %
TSS (CBOD)	74
TN	64
NO3-N	25
TKN	52
TP	47

Del Sol SD, Bayou Castine Watershed

Floating Wetland BMP

Bioremediation: Floating wetlands mimic natural functions, transforming nutrients & pollutants into forms that are useful for organisms

- >250 homes in micro watershed
- 150 Sewered
- 100 Unsewered

Constituents	Del Sol Floating Wetland (n=19) RE, %
TSS (CBOD)	66
TN	38
NO3-N	59
TKN	59
TP	65

LaBarre Street

Little Bayou Castine Watershed

Vegetative Planting BMP

- 205 homes benefitting
- Sewer connections under construction

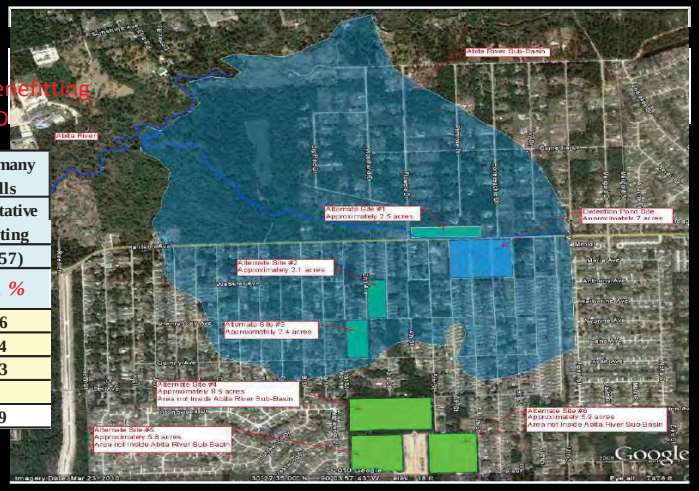
Constituents	Labarre Street Vegetative Planting (n=57) RE, %
TSS (CBOD)	66
TN	84
NO3-N	53
TKN	
TP	39

Tammany Hills SD

Abita/Tchefuncte River Watershed

Vegetative Planting BMP

- 401 homes benefitting
- Unsewered SD



Constituents	Tammany Hills Vegetative Planting (n=57)
	RE, %
TSS (CBOD)	66
TN	84
NO3-N	53
TKN	
TP	39

Little Creek Commercial

Lower Tchefuncte Watershed

Induced Flow BMP (HS□03)

- drainage benefit
- commercial & residential runoff
- Benefit to 5 "hot spots"

Constituents	Little Creek Induced Flow (n=32)
	RE, %
TSS (CBOD)	37
TN	37
NO3-N	
TKN	17
TP	28

Removal Efficiencies of DO□Demanding Constituents in SW Ponds

Constituents, mg/L	Casa Bella	Del Sol	Labarre Street / Tammany Hills	Little Creek Commercial
	Aeration	Floating Wetland	Vegetative Planting	Induced Flow
	(n=46)	(n=19)	(n=57)	(n=32)
	Removal Efficiency, %			
TSS (CBOD)	74	66	66	37
TN	64	38	84	37
NO3-N	25	59	53	
TKN	52	59		17
TP	47	65	39	28

From "Analysis of Treatment System Performance", International Stormwater BMP Database (1997□2007) (Geosyntec and WWE 2007)

"Hot Spot" Identified by TMDLs at Locations Failing DO Standards

34 Hot spots

Characterization Allows STP to analyze CAUSE of standards failure

Most HS are in streams determined to be:

(

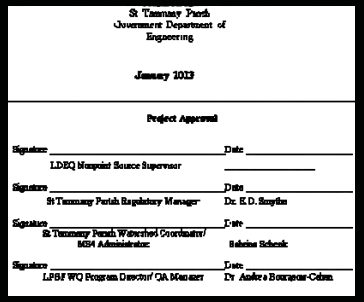
- Shallow or
- Wetland dominated

St Tammany Parish WQ Action Plan "Hot Spot" Assessment	
Number: HS__	
Assessment By: _____	
Date: _____	
Assessment Parameter	Findings
Hydrology & Color	
Water depth [1]	*Influences K2 & SOD zone of influence*
Width of stream [2]	*Aerial*
Velocity [3]	*Flowing/Not flowing*
Culvert of Bridge [4]	*Restricting flow or causing pooling*
Color	*Clear/cloudy, brown/black*
Geomorphology	
Type of water bottom [5]	*Mud/sand/gravel*
Sinuosity [6]	*Natural or channelized*
Pool or Riffle	*Affects K2*
Land Use - Effluent Dominated	
Note Land Use in Vicinity	*Residential/commercial/wetlands*
Note unsewered communities nearby [7]	*No central system*
Wetland Impacted? Other	
Relevant Information	
Pictures	

"Hot Spot" Assessments

Monthly In situ measurements at HS

- Meter measurements for physico-chemical parameters:
  - *DO*
  - *Temperature*
  - *Specific Conductance*
  - *Turbidity*
  - *pH*
  - *Salinity*
- Measurements & replicates conducted according to Standard Methods and the STP QAPP
- Samples collected and QA/QC'd by LPBF and a database will be maintained


St. Tammany Parish
Government Department of
Engineering

January 2013

Project Approval

Signature _____ Date _____
LDEQ Nonpoint Source Supervisor

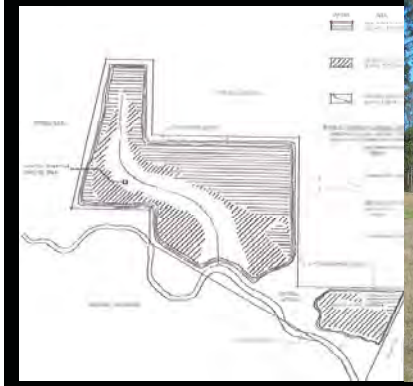
Signature _____ Date _____
St Tammany Parish Regulatory Manager Dr. E.D. Smyths

Signature _____ Date _____
St Tammany Parish Watershed Coordinator/
MS4 Administrator Sabrina Schenk

Signature _____ Date _____
LPBF WQ Program Director/ QA Manager Dr Andrea Bourassa-Cobb

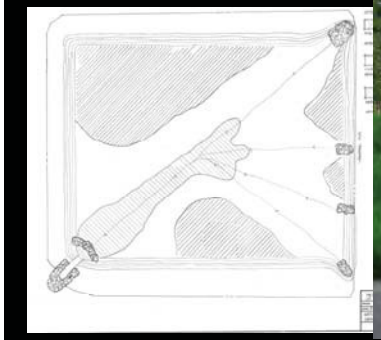
14-Acre Chinchuba Pond Vegetative Planting

Volunteers planted over 4400 trees in February 2013



5-Acre Tammany Hills Pond Vegetative Planting

Volunteers planted over 500 trees in November 2012



DRIVER: LDEQ MS4 Permit Compliance

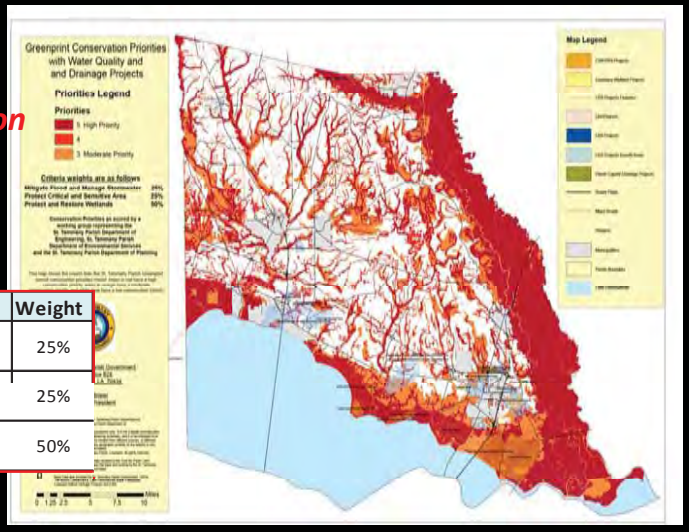
2013 MS4 permit will require more attention to TMDLs

- Stormwater Ordinance required to meet State MS4 program
- Provides incentives for better than minimum BMP standards & innovations

All drainage projects will now be reviewed for WQ improvement potential

3. Conservation & Mitigation Program

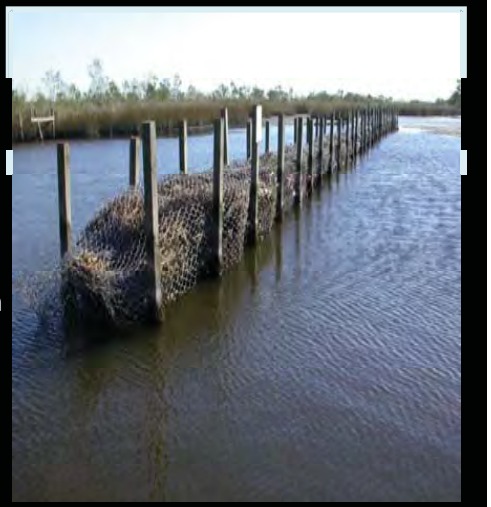
Greenprint Conservation Priorities



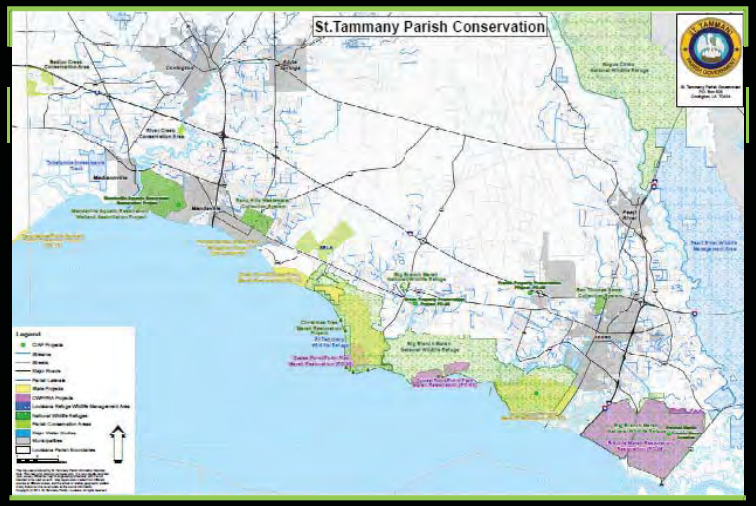
Criteria	Weight
Mitigate Floods & Stormwater	25%
Protect Critical & Sensitive Areas	25%
Protect & Restore Wetlands	50%

Conservation/Mitigation Approach

- Protects coastal areas
  Protects channels
- Promotes conservation:
  - *Acquisition*
  - *Conservation easements*
  - *mitigation banking*
  - *f*
- Encourages stakeholder buy□in
- Makes management approach Parish law
- Evaluates existing regulations, strengthen needed



Conservation Easements & Mitigation Management Plan

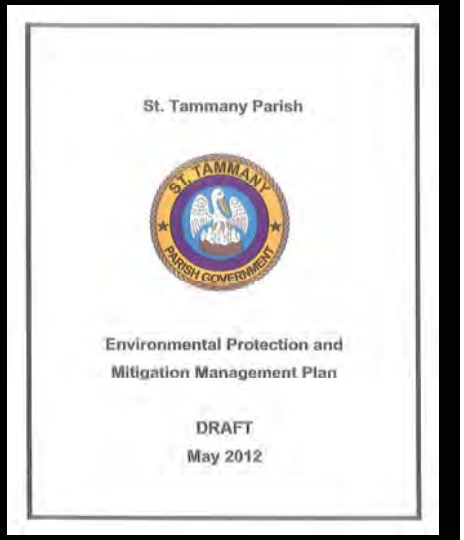


Environmental & Mitigation Plan

Use Greenprint Model to ID priority wetlands for

- acquisition
- preservation
-

- Develop projects that complement wildlife management areas
- pp environmental Plan
- Develop a funding strategy to implement the Plan



Conservation Easements & Property Acquisitions: $12.6 Million

A Strong Start since 2008 (2,093 acres)

Year	Name	Conservation Easement (E) or Property Acquisition (A)	Watershed	Acres	Commitment by Parish
2004	Bayou Liberty Properties [1]	A	Bayou Liberty	14	$ 2,700,000
2006	Camp Salmen	A	Bayou Liberty	105	$ 2,100,000
2011	Green Property	A	Bayou Lacombe	26	$ 1,300,000
2012	Southeast Hospital Property	A	Bayou Cane Bayou Castine	1,442	$ 6,450,000
2012	Marsh land near Tammany Trace @ Bayou Lacombe	A	Bayou Lacombe	10	$ 40,000
2012	Little Creek commercial development	A	Little Creek Pontchatolowa Creek	6	
2012	Bedico Creek S/D	E	Bedico Creek Tangipahoa River	377	
2012	River Club	E	Tchefuncte River	32.5	
2012	Fairway	E	Bayou Chinchuba	80	
Totals				**2,093**	**$ 12,590,000**

[1] North Bayou Liberty Properties : French ($2.7 million) and Green ($1 million)

Southeast Hospital Property (1442 acres)

First attempt to use conservation property for environmental & drainage purposes

to projects affecting Bayous Castine & Cane

- as natural b/t development of greater Mandeville & Fountainbleau State Park
- Potential mitigation bank for STP

Coastal Restoration Program

$26 Million spent to date

Since 1990 STP has participated in marsh creation and protection projects and purchased properties for preservation

Project Name	Cost
Goose Point Restoration	$ 21,000,000
Northshore Marsh Restoration	$ 2,100,000
Fritchie Marsh Restoration	$ 2,500,000
Christmas Tree	$ 300,000
Christmas Tree 2009	$ 12,500
Christmas Tree 2010	$ 39,175
Big Branch Marsh Planting	$ 75,000
Total	**$ 26,026,675**

4. Education & Outreach Program

STP is active in WQ improvement Education & Outreach Programs

- TMDL Outreach Meetings
- BMP Workshops
- WQ Task Force Meetings
- LA Urban SW Coalition (LUSC)
- Staff SW Certifications & Training
- Clean Marina Workshops
- Re□Tree St Tammany
- World WQ Monitoring Day
- Household HW Day

Since 2002 St Tammany Parish has aggressively worked with state and federal agencies to fund drainage & watershed studies and construct recommended projects

A substantial achievement for any local government

Project Element	Commitment
Wastewater	**$ 54,400,000**
Utility Acquisitions	$ 46,000,000
Wetland Assimilation (Mandeville)	$ 4,000,000
System Expansions (residential)	$ 4,400,000
Stormwater	**$ 67,559,521**
Engineering Drainage Projets & Watershed Studies (from 2004)	$60,393,300
CIAP	$ 500,000
Slidell Reine Canal	$ 1,600,000
USGS Streamgauging Co-operative Funding	$ 563,375
Levee Systems & Pump Stations	$ 4,502,846
Conservation	**$ 38,616,675**
Coastal Program	$ 26,026,675
Conservation Easements & Property Acquisitions	$ 12,590,000
TOTALs	**$ 160,576,196**

TMDL Response: Proposed Projects & Estimated Costs for MOU

Project	Cost
S&W Projects Hot	$ 27,100,000
Spot cluster Drainage	$ 3,250,000
enhancement	$ 5,000,000
Environmental plan	$ 500,000
Public info plan	$ 100,000
Ordinance Overhaul	$ 50,000
Inspection & Enforcement	$ 500,000
Environmental plan	$ 500,000
Total	**$ 37,000,000**

TMDL Response: Non-Financial Requests to LDEQ

- Request permit in areas UAA completed
- Allow businesses to continue operating during this time
- Allow permitting of new facilities until the UAA is completed
- Re-Run TMDL models with more current discharger inventory (after UAA & regionalization)
- *Create a DEQ working group to work with STP personnel to review STP project performance*

Program Timetable

Project Element	Time for Completion
Scopes	1 month
Procurement	3 months
Feasibility planning	9 months
Preliminary design/environmental	9 months
Final design/ ROW acquisition	12 mo's
Procurement	3 months
Construction	12 mo's
Surveillance	quarterly
Minimum time for project completion	**49 months**

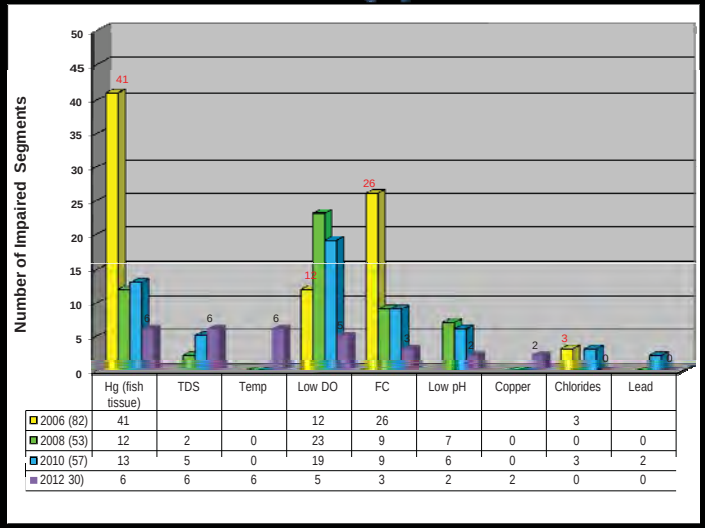
What's Next? TMDL Implementation

Challenges…

- _____
  - Phase I TMDL Implementation allocates changes to hundreds of permitted & unpermitted facilities
  - STP must provide local environmental regulation that enhances long-term, stable economic growth

- St Tammany Parish must enforce through MS4 Permit (Stormwater Ordinance required)
  - BMPs for NPS
  - Plan for Regionalization/upgrades
  - *Encourage more Wastewater Assimilation projects*

Demonstrated WQ Improvement: 2012 303(d) List



	Hg (fish tissue)	TDS	Temp	Low DO	FC	Low pH	Copper	Chlorides	Lead
2006 (82)	41			12	26			3	
2008 (53)	12	2	0	23	9	7	0	0	0
2010 (57)	13	5	0	19	9	6	0	3	2
2012 30)	6	6	6	5	3	2	2	0	0

Receiving Water Quality Sampling Plan

St. Tammany Parish
Water Quality Action Plan

Prepared by:
St. Tammany Parish Government Department of Engineering
And
Lake Pontchartrain Basin Foundation

November 22, 2013

Project Approval

Signature _____ Date _____
St Tammany Parish Regulatory Manager: E.D. Smythe, PhD

Signature _____ Date _____
St Tammany Parish Watershed Coordinator/
MS4 Administrator: Sabrina Schenk

Signature _____ Date _____
LPBF WQ Program Director/ QA Manager: Andrea Bourgeois-Calvin, PhD

Table of Contents (A2)

Distribution List (A3)

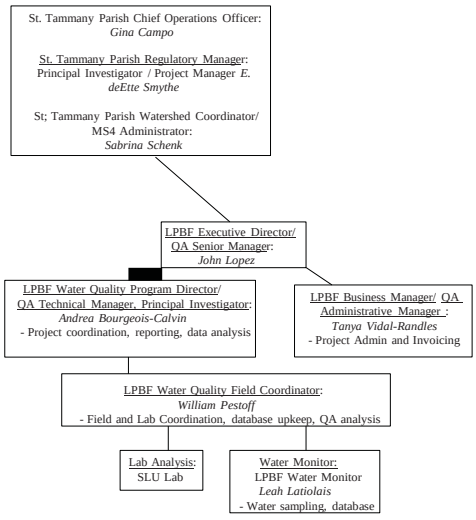
St. Tammany Parish
P.O. Box 628
Covington, LA 70434
- E. deEtte Smythe PhD, STP Regulatory Manager
- Sabrina Schenk, STP Watershed Coordinator & MS4 Administrator

Lake Pontchartrain Basin Foundation
Pontchartrain Beach Office
2045 Lakeshore Drive, Suite 339
New Orleans, LA 70122
- John Lopez Ph.D., LPBF Executive Director/QA Senior Manager
- Andrea Bourgeois-Calvin Ph.D., LPBF Water Quality Program Director/ QA Technical Manager, Principal Investigator
- Tanya Vidal-Randles, LPBF Business/Program & Grants Manager/QA Administrative Manager
- Leah Latiolais, LPBF Water Quality Monitoring Assistant

Project/Task Organization (A4)

St. Tammany Parish is contracting with the Lake Pontchartrain Basin Foundation (LPBF) on 1) water quality monitoring of "hotspots" in parish rivers and 2) wet and dry weather water monitoring of stormwater retention and detention lagoons to assess the effectiveness of treatment technologies. The LPBF will be responsible for sampling physiochemical parameters, collection of water samples for organic and nutrient analysis, data storage and analysis, and overall sampling and logistics components of the project. An EPA/LELAP approved laboratory will provide organic and nutrient analysis. St. Tammany is the funding agent and will be responsible for oversight of the investigative water quality project that includes the stormwater demonstration ponds and "hot spot" monitoring. Results obtained from the above activities will be analyzed by LPBF to accomplish the study objectives. An organization chart is presented below (Figure 1).

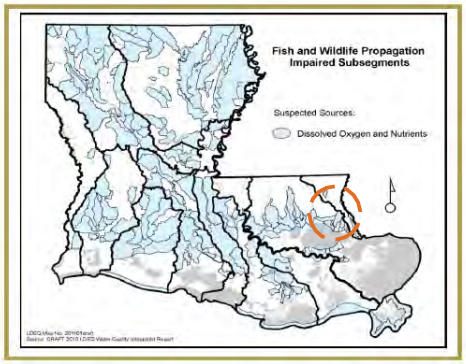
Figure 1. Project Organization Chart



Problem Definition/Background (A5)

Lake Pontchartrain is the centerpiece of a large estuarine watershed in southeast Louisiana. St. Tammany Parish, on the north shore of Lake Pontchartrain, is a rapidly developing region of the Lake Pontchartrain Basin. Several major rivers of the Pontchartrain Basin run through this region and have felt the effects of accelerated urban development. The building of subdivisions, shopping centers, and other private and commercial developments has introduced many types of pollutants into the rivers. As a consequence, many of the stream segments in St. Tammany Parish have been listed on EPA's 303(d) List of Impaired Waterbodies and have had Total Maximum Daily Loads (TMDLs) completed for their respective constituents (Figure 2, orange dotted circle around St. Tammany).

Figure 2. Louisiana Stream Segments Impaired for Dissolved Oxygen and/or Nutrients



Nonpoint Sources (NPS) have been identified as major contributors to water quality impairments in the 12 recently implemented TMDLs for St. Tammany Parish waterbodies. Part of the Parish response, or "Action Plan", to address impairments by NPS is to implement a series of demonstration projects to test Best Management Practices (BMP) removal efficiencies (REs) by retrofitting existing retention ponds into water quality ponds. While the retention ponds currently serve their purpose for storing stormwater, they could be used as an effective treatment tool for non-point source pollutants. Existing literature on BMPs suggests that retrofitting the ponds into water quality ponds should improve water quality in the respective receiving streams by removing oxygen-demanding substances by 40% to 100%. A second part of the "Action Plan" involves the Parish gaining more water quality data on streams and rivers listed on the Impaired Waterbodies list (so-called "hot spots").

The Lake Pontchartrain Basin Foundation (LPBF), in association with St. Tammany Parish, will perform: 1) water quality sampling on selected "hotspots" on parish rivers and 2) water quality sampling of up to four stormwater ponds that will be retrofitted to water quality ponds using a variety of best management practices (BMPs). In order to document the removal efficiencies of each respective BMP, understand potential water quality improvements to the respective impaired stream subsegments and address seasonality issues, monitoring and sampling are proposed to be conducted on each demonstration pond through four storm events and also through dry-weather conditions. Additionally, monthly *in-situ* monitoring will be conducted at each of the wet ponds and in the up to 34 known "hot spots" in Parish waterbodies.

The Parish will also incorporate a public education, participation, and involvement element detailing the water quality improvements attained by the BMP retrofits of the existing retention ponds. The most effective BMPs will be applied to the remaining 49 Parish-maintained ponds and recommended to Homeowner Associations and commercial entities to retrofit their own ponds for water quality improvements.

The goals of this program are:

1) To further document water quality conditions on St. Tammany waterways listed as impaired on the 2012 LDEQ Integrated Report;
2) To document the nutrient removal efficiency and other water quality benefits to stormwater ponds retrofitted with different technologies.

Water monitoring of the actual system, statistical analysis, and GIS analysis will accomplish the goals of this program.

Project/Task Description (A6)

Task 1: *In situ* water quality monitoring of rivers: To address the first goal of this program, the LPBF will perform monthly *in situ* monitoring of up to thirty four (34) hotspots along rivers in St. Tammany Parish (Figure 3). Water quality parameters of water temperature, dissolved oxygen, specific conductance, salinity, turbidity, pH and flow will be analyzed *in situ* using EPA-approved field meters and methodologies. The purpose of the monitoring is to obtain additional water quality information on the rivers in St. Tammany Parish to present to the Louisiana Department of Environmental Quality for its use in evaluation of future total maximum daily load ("TMDL") requirements for impaired water bodies. While no specific weather conditions will be targeted for this monitoring, the monitoring will not take place during adverse weather conditions.

All samples will be taken approximately one (1') to two (2') feet below the water surface. Three (3) samples will be taken from each site, with the parameters averaged to determine the daily value. For turbidity, the field turbidimeter will be set on "average" and ten readings will be averaged for a daily value.

Task 2: Dry weather monitoring of retention ponds: To address the second goal of this program, the LPBF will perform dry weather monitoring of three (3) storm water retention ponds and the receiving streams (collectively, the "Systems" or individually, a "System") identified as (a) Casa Bella subdivision pond; (b) Little Creek Commercial pond; and (c) Del Sol subdivision

pond. LPBF will sample four (4) points in each System, namely (a) influent points of each pond; (b) effluent points of each pond; (c) receiving water body upstream of pond effluent entry; and (d) receiving water body downstream of pond effluent entry. The sampling will be conducted four (4) times per year on each System. Two (2) samplings shall occur during summer conditions, and two (2) samplings shall occur during winter conditions.

Sampling will occur on dry weather days, when no rainfall has occurred for at least seventy two (72) hours prior. The water quality parameters of water temperature, dissolved oxygen, specific conductance, salinity, turbidity, pH and staff gauge readings will be analyzed *in situ* using EPA-approved field meters and methodologies. The LPBF will concurrently collect one (1) grab sample at each of the four (4) collection points of each System for laboratory analysis of nitrate-nitrite-nitrogen, ammonia-ammonium-nitrogen, total kjeldahl nitrogen, total nitrogen, total phosphorus, total organic carbon, total suspended solids, and carbonaceous biochemical oxygen demand (5). The samples will be transported, on ice, to the laboratory within six hours of collection. Samples that require acid preservation will be preserved at the lab. Results will be obtained from the lab within two weeks of submission. Information regarding the time of analysis, and name of the person taking the measurements, and state of the site (i.e. trash/debris, wildlife, weather) will be recorded.

For selection criteria, the ponds must be Parish-maintained, located within the watersheds of impaired waterbodies that have been identified in USEPA's 303(d) list for low dissolved oxygen (DO) and have an EPA-approved TMDL. The BMPs that are proposed are: 1) Vegetative Planting of a dry pond, 2) Floating Wetland in a wet pond, 3) Aeration of a wet pond and 4) Induced Flow from a wet pond into its receiving stream.

Task 3: Wet weather monitoring of retention ponds: The LPBF will perform wet weather monitoring on up to four (4) storm water retention ponds identified as (a) Casa Bella subdivision pond; (b) Labarre Street pond; (c) Little Creek Commercial pond; and (d) Del Sol subdivision pond. The LPBF will install, deploy and operate two (2) ISCO multi-samplers to collect ten (10) grab samples at one (1) hour intervals during rain events at the influent and effluent points of the selected System. When deploying and collecting the ISCO multi-samplers, LPBF will also test the water quality parameters of water temperature, dissolved oxygen, specific conductance, salinity, turbidity, pH and staff gauge readings, analyzed *in situ* using EPA-approved field meters and methodologies. The samples collected by the ISCO multi-samplers shall be laboratory analyzed for nitrate-nitrite-nitrogen, ammonia-ammonium-nitrogen, total kjeldahl nitrogen, total nitrogen, total phosphorus, total organic carbon, total suspended solids, and carbonaceous biochemical oxygen demand (5). The ISCO multi-sampler testing will occur four (4) times per year at each of the four (4) referenced retention ponds. Two samples will be collected each hour (one containing acid and one not) for ten hours. The samples will be transported, on ice, to the laboratory within twelve hours of collection completion. Samples that require acid preservation will be preserved at the lab. Results will be obtained from the lab within one week of submission. Information regarding the time of analysis, and name of the person taking the measurements, and state of the site (i.e. trash/debris, wildlife, weather) will be recorded.

All samples collected for laboratory analysis by the LPBF will be analyzed using a laboratory certified by the Louisiana Department of Environmental Quality's Louisiana Environmental

Laboratory Accreditation Program ("LELAP"). Foundation shall utilize EPA-approved methodologies to transport the samples to the LELAP lab. The LPBF will also operate, maintain and preserve the databases associated with this monitoring. Statistical analyses will document baseline conditions and changes in water quality as a result of the program.

This QAPP addresses the QA/QC requirements for the project. This data collection and analysis component of this study consists of three elements: a laboratory effort (nutrient analyses); *in situ* measurement of the physiochemical parameters; and gathering and analysis of data for GIS/statistical analyses.

Quality Objectives and Criteria (A7)

The purpose of this project is to better document water quality conditions in St. Tammany rivers and document removal efficiencies of different stormwater BMPs on demonstration stormwater detention and retention ponds. Data to be collected will include water quality testing and data will be used to perform statistical and GIS analyses. Observing and recording the behavior of the actual system through the field data collected as described in this QA/QC plan, will accomplish this purpose.

Sampling activities have been described above (Section A6) and data collection methodology for this study, sample size, and quality criteria are discussed in Section B. Water quality data will be stored in a Microsoft Excel spreadsheet. It will be subjected to quality control and descriptive statistics as described in *Guidance for Data Quality Assessment* (EPA QA/G-9). The mean (and/or median if using non-parametric stats) and relative percent difference will be computed bi-annually for each meter parameter at each site as part of the quality assurance regime. Statistical analyses on the data will be performed using Microsoft Excel or JMP, a SAS program.

To address the first objective: Dissolved oxygen (D.O.) values from each monitored "hot spot" will be compared to the LDEQ's standard (5 mg/l for rivers, 4 mg/l for wetlands). For sites with low D.O. values (prioritized by magnitude- see below), land use will be analyzed (on the ground and through GIS) and potential sources contributing to the low D.O. will be investigated.

To address the second objective: Nutrient samples will be taken at up to four stormwater ponds during dry-weather conditions and throughout the duration of wet-weather conditions. Influent/effluent and wet/dry will be compared for each pond to ascertain the pollutant removal efficiency of the different stormwater BMPs utilized.

The investigation of pollution sources within the watersheds will be prioritized based on the results of the water quality monitoring, GIS land-use analysis, and physical observation of land use. Water quality "hot spot" monitoring sites with at least three D.O. counts under 2 mg/l (anoxic, during dry-weather conditions) will have priority for source investigation. Sites with D.O. counts of 2-5 mg/l will have second priority and sites with counts >5 mg/l (meeting standards) will not investigated. For priority sites, physical observation and GIS, if needed, will be used to locate sources and assistance will be offered.

Summaries of the analyzed data will be presented in a semi-annual status report and in a final project report to St. Tammany Parish. Quality assurance will be maintained by the LPBF through performance evaluations, audits, and semi-annual reports made to St. Tammany Parish.

Special Training Requirements (A8)

LPBF water monitors have been trained by the Southeastern Louisiana University Microbiology Laboratory on sampling procedures and on the operation of the multi-sampler unit.

Documentation and Records (A9)

All project personnel will receive copies of this QAPP and subsequent updates/revisions. Water monitoring personnel will receive copies of the sampling standard operating procedure with all standard methods employed explained in full detail and copies of operator's manuals for all equipment. Records maintained will include the following: all data relating to sampling, analysis and quality control, documentation on equipment upkeep and calibrations for preventative maintenance, documentation of errors and corrective actions, and all performance evaluations. Project reports will be generated semi-annually to assess progress of the project. These will be submitted to St. Tammany Parish on or about July 30th (covering activities January-June) and January 30th (covering activities July-December) for review and approval.

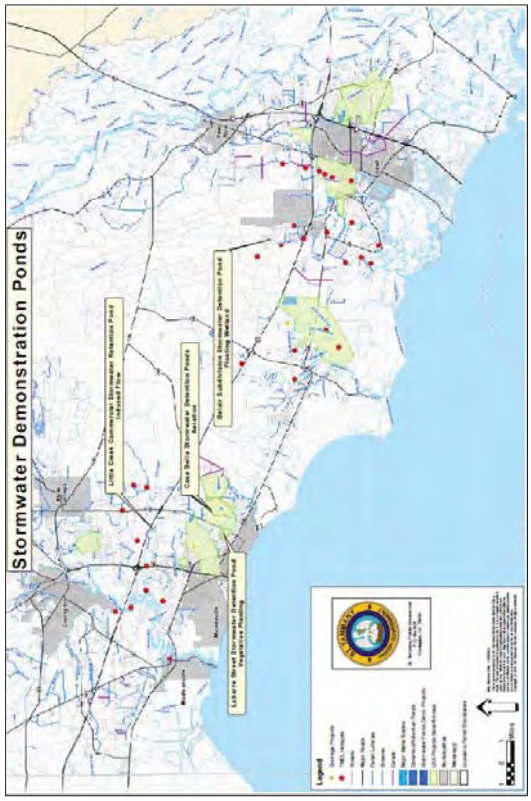


Figure 3. Hot Spot Sites and storm water Demonstration Ponds

Sampling Process Design (B1)

LPBF will perform intensive water quality monitoring in St. Tammany Parish rivers and tributaries listed on the Impaired Waterbodies (303d) list (aka the "hot spots") and will monitor BMPs on stormwater retention and detention ponds during wet and dry conditions.

To achieve the study objective, monitoring of "hot spots" in St. Tammany streams, LPBF will monitor dissolved oxygen and other physiochemical parameters monthly at the pre-chosen hot spot site. Sites will be accessed by car and will be established with GPS coordinates. Sites will be sampled at least monthly or 12 times minimum in a one-year period. Sites will be monitored throughout the course of the project to document seasonal variations and potential improvement in quality as a result of intervention. Based on the findings, exploratory sites may also be monitored to help locate inputs.

To achieve the second study objective, documentation of BMP efficiency during wet and dry weather, LPBF will monitor up to four stormwater retention/detention ponds. Each pond will be monitored 8 times in a one-year period, four times during the summer (two wet, two dry) and four times during the winter (two wet and two dry). All four pond sites will be accessible by vehicle and established with GPS coordinates.

The specifics of each monitoring regime are described in Section A6. All test results and information will be stored at LPBF in a spreadsheet where it will be quality assured.

Sampling Methods Requirements (B2)

Physiochemical Parameters
Temperature, specific conductance, dissolved oxygen, pH, and turbidity will be measured *in situ* (by meters outlined in B4) at all hot spot and pond sites. For each site, three measurements will be averaged for each parameter as the daily value. All values will be recorded on the water quality data sheet (Figure 4).

Nutrient Analysis
Nutrient analysis will be performed at sites on the four stormwater ponds during wet and dry conditions. For dry-weather analysis: grab samples of 1 liter volume will be taken at each pond site described in Section A6, Task 2. Samples will be collected in a 1 liter cleaned and autoclaved plastic sample bottle using a fishing pole with bottle holder. For wet-weather analysis: a multi-sampler will be deployed to collect 1 hour grab samples during a 10 hour period of a rainfall event as per Section A6, Task 3. Hourly samples will be collected in two 500 ml clean multi-sampler containers (one fixed with H_2SO_4).

Samples will be stored and preserved in accordance with *Standard Methods for the Examination of Water and Wastewater* Methods 1060B and 9060A. The samples will be stored on ice (< 10ºC, SM 9060B) and transported to the laboratory within six hours of collection (dry-weather samples) or within 24 hours (wet-weather samples), in accordance with *Standard Methods for the Examination of Water and Wastewater* Methods 1060C and 9060B. Upon receipt of samples in the lab, nutrient samples will be held in accordance with their individual procedures.

Sample Handling (B3)

All physiochemical measurements are to be performed *in situ.* Data will be recorded on field data forms (Figures 3). Sample handling procedures for nutrient analysis are presented in B2. Samples will be collected by the water monitoring personnel, delivered by him/her to the laboratory, and personally handed to the lab personnel performing the analysis. Sample labeling, handling, and disposal within the laboratory will proceed in accordance with their standard operating procedures.

Analytical Methods Requirements (B4)

Physiochemical, Microbiological, and Nutrient Analysis
The analytical methods to be employed for this study are summarized in this section (Table 1).

Table 1. Analytical Methods

Parameter	Method	Equipment
Dissolved Oxygen	Standard Methods for Examination of Water and Wastewater, 22nd Ed. SM 4500-OG	YSI85 S-C-DO-T Meter 0-20mg/L range, ± 0.3mg/L accuracy
Temperature	Standard Methods for Examination of Water and Wastewater, 22nd Ed. SM 2550B	YSI85 S-C-DO-T Meter -5 to +65°C range, 0.1°C accuracy
Specific Conductance	Standard Methods for Examination of Water and Wastewater, 22nd Ed. SM 2510B	YSI85 S-C-DO-T Meter 0 to 4999 µS/cm range, ± 0.5% accuracy
Turbidity	Standard Methods for Examination of Water and Wastewater, 22nd Ed. SM 2130 B	Hach Portable Turbidimeter 0 to 1000 NTU range, 0.01 NTU accuracy
pH	Standard Methods for Examination of Water and Wastewater, 22nd Ed. SM 4500-H^+B	YSI 60 pH Meter 0 to 14.00 range, 0.1pH accuracy
Nitrate/Nitrite	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 4500-NO3 F	Hach DR5000 Spectrophotometer BioTek PowerWave HT Microplate Spectrophotometer 0.1-unlimted range (dilution scheme used for high range samples)
Orthophosphate as P	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 4500-P E	Hach DR5000 Spectrophotometer BioTek PowerWave HT Microplate Spectrophotometer 0.01-unlimted range (dilution scheme used for high range samples) precision: for 0.228 ug/L sample Relative SD =3.03

TOC/IC	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 5310 B	Shimadzu TOC-Vcpn Range: 0.1-unlimited range (dilution scheme for high range samples) precision: 5-10% depending on sample characteristics
TN	High Temperature Combustion/Chemilumenscence	Shimadzu TOC-Vcpn, TNM-1 module 0.1-200mg/L precision: CV 3% max
Ammonia as N	Standard Methods for Examination of Water and Wastewater, 20th ed. SM 4500-NH3 G B	Hach DR5000 Spectrophotometer BioTek PowerWave HT Microplate Spectrophotometer 0.05-unlimited range (dilution scheme used for high range samples)
Residue-nonfilterable (TSS)	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 2540 D	Satorius model CP224S
Carbonaceous BOD, (CBOD)	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 5210 B	Hach HQ40d multi-meter and Hach LBOD probe
Total Kjeldahl Nitrogen (TKN)	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 4500-N J	Hach DR5000 Spectrophotometer BioTek PowerWave HT Microplate Spectrophotometer 0.05-unlimited range (dilution scheme used for high range samples)
Total Phosphorus (TP)	Standard Methods for Examination of Water and Wastewater, 21st ed. SM 4500-P J	Hach DR5000 Spectrophotometer BioTek PowerWave HT Microplate Spectrophotometer 0.05-unlimited range (dilution scheme used for high range samples)
Alkalinity	Standard Methods for Examination of Water and Wastewater, 21st ed. Method 2320B, Titration method	Oakton pH 510 series meter Brinkman digital buret both 0-20mg/L range and >20 mg/L method used, depending on sample As per Standard method, no general precision statement can be made.
Color	Standard Methods for Examination of Water and Wastewater, 21st ed. Method 2120C, Multi-Wavelength Method	Hach DR5000 Spectrophotometer
UV-Absorbing Organic Constituents	Standard Methods for Examination of Water and Wastewater, 21st ed. Method 5910B,Ultraviolet Absorption Method	Hach DR5000 Spectrophotometer

Quality Control Requirements (B5)

The quality control performed on a sample or set of samples is dictated by the protocols of the individual methods. All quality control methodology and statistics will be performed in accordance with: Methods 1020B&C, 1030A, the parameters' test methods in *Standard Methods for the Examination for Water and Wastewater*, the manufacturers' guides, and the *Guidance for Data Quality Assessment* (EPA QA/G-9). The laboratories will perform all of their quality control requirements in accordance with standard operating procedures/QA plans.

Field Replicates
At least bi-annually water sample will be collected (sequentially, at the same location after sample collection) at one of the sampling sites and submitted to the laboratory as a blind sample and sampled for one parameter. The replicate data will be utilized and analyzed as quality control values.

Field and Laboratory Blanks
At least bi-annually, one extra sample (the blank) will be collected by pouring distilled water into the collection bottle in the field and submitting it to the lab with the other samples (blind sample). The QC goal is to have no recorded values for the parameters. Laboratory blanks will be run under the lab's QA plan.

Matrix Spikes/ Spike Duplicates
Matrix Spikes/ Spike Duplicates are not necessary for the analysis of physiochemical parameters as all tests are conducted *in situ*. Matrix Spikes and Spike Duplicates associated with the collection and analysis of nutrients are detailed in the labs' QA plans.

Analysis of Quality Control Data
Quality control data is summarized in QA/QC reports and forwarded to St. Tammany Parish. Data from the reports are utilized to assess the overall precision, accuracy, and completeness of each particular method. For these methods, the precision and accuracy is assumed to approximate published precision and accuracy.

Assessing Data Precision, Accuracy, and Completeness
1. Precision
Precision is defined as the reproducibility of multiple data points that have been generated for a particular method under identical condition. On each sampling date, three readings for each physiochemical parameter are taken at each site. The triplicate data is subjected to precision analysis. Precision is expressed as the relative percent difference (RPD). The JMP Statistical Program, or Microsoft Excel will be used for these calculations.

$$RPD = (X^1-X^2) / X(100)$$

Where X^1 and X^2 are maximum and minimum sample values from daily triplicate samples

2. Accuracy
Accuracy is a measure of the closeness an experimentally observed value and the actual value, the latter of which is determined by the analyst through the use of sample spikes, surrogates, or reference standards. Field meters will be considered to be giving accurate readings through

calibration with NIST standards and equipment maintenance. See Calibration and Maintenance schedule (Table 2) below for upkeep activities.

3. Completeness
Completeness is the amount of valid data generated in relation to the total amount of data produced for a given analytical method. Valid data is defined as data with associate QA/QC measurements that fall within required values for the purpose of this study (Table 2). Data completeness goal for each parameter are also noted in Table 2.

Evaluation of Statistically Derived QA/QC Data
Data that has been generated for QA/QC purposes must be assessed to determine the ability of the equipment and personnel to generate reliable data. Microsoft Excel or JMP statistical program will be used for these calculations.

Table 2. Criteria for QA/QC Analyzed Parameters

Parameter	Relative % Difference	Standard Method	Completeness Goal
Specific Conductance	5	Ref1/2510B	> 90% data/ year
Turbidity	10	Ref1/2130B	> 90% data/ year
Temperature	5	Ref1/2550B	> 90% data/ year
Dissolved Oxygen	10	Ref1/4500-OG	> 90% data/ year
PH	5	Ref1/4500-H^+	> 90% data/ year

Instrument/Equipment Testing, Inspection, and Maintenance Requirements (B6)

Physiochemical Parameters
All equipment and associated components will be inspected, calibrated, and tested by the Principal Investigator upon receipt according to the operator's manual. Equipment will be maintained according to the operator's manuals with all calibrations and maintenance documented. If a piece of equipment gets damaged or otherwise does not perform correctly, the piece of equipment will be mailed to appropriate repairers. Equipment will be re-inspected, calibrated, and tested by the Principal Investigator or water monitoring personnel upon receipt. Back-ups for all equipment and spare parts will be maintained by the LPBF at all times.

Instrument Calibration and Frequency (B7)

Physiochemical Parameters
Calibration protocols are performed under the following conditions:
1) First use of an analytical instrument, component of the analytical instrument, or analytical method;
2) During the sample analysis procedure, as dictated by the methodology;
3) After instrument repair and/or maintenance;
4) After quality control check failure.

Additional calibration requirement and procedures recommended by the instrument manufacturers' are also followed. All calibrations are performed according to the operator's manual using standard solutions purchased from the instrument manufacturers (standardized against NIST-certified references). All calibrations are performed in accordance with the procedures specified in the analytical methodology commanding their use (Table 3).

Table 3. Physiochemical Instruments Calibration/Maintenance Procedures

Equipment	Schedule	Procedure
Dissolved Oxygen Probe	Each Use/Weekly	- Calibrate to 100% saturation - Check against standard chart
	Tri-weekly	- Change tip of probe
	Bi-annually	- Clean anode/cathode, change tip of probe
Conductivity Probe	Bi-Annual/ Repair	- Check one standard KCl solution
	Tri-weekly	- Check salinity against distilled water
Turbidimeter	Three Months	- Calibrate to formazin standard
	Tri-weekly	- Check against secondary standards
pH meter	Each Use/Weekly	- Perform two point calibration
	Tri-weekly	- Change all buffers and solutions

Nutrient Analysis
The lab standardizes and calibrates all of its equipment in accordance with its QA plan.

Inspections/Acceptance Requirements for Supplies and Consumables (B8)

The Principal Investigator and the monitoring personnel will log the receipt of all new equipment and will inspect, calibrate, and test the equipment (as necessary) before accepting them. If equipment/supplies are damaged or do not pass calibration and testing, they will not be accepted. All supplies will be handled and stored according to operator's instructions.

Nutrient Analysis
During sample collection, the monitoring personnel are responsible for inspection and acceptance of the sample containers. The lab will inspect its own consumables and supplies in accordance with its QA plan.

Non-Direct Measures (B9)

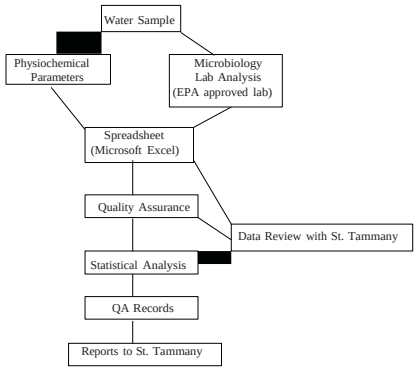
There are no secondary data needed for this project.

Data Management (B10)

Data management will follow the chart presented below (Figure 4). The results of both the physiochemical and microbiological analysis will be put into a spreadsheet format by the LPBF monitoring personnel for preliminary descriptive statistical analysis (Microsoft Excel). JMP, a SAS program, will be utilized for statistical analysis and ArcGIS will be used for GIS analysis.

Figure 4. Data Management Flow Chart

* All steps in data flow performed by LPBF unless indicated otherwise.



Assessment and Response Actions (C1)

Assessment activities needed for this project include performance evaluations, performance audits, and peer review. The Principle Investigator is in constant contact with the monitoring staff to resolve issues as they arise. In addition, all data is subject to bi-annual QA review, which is summarized in an annual program QA/QC document. The laboratory will conduct its own assessment of its methodology in accordance with its QMP.

Performance Evaluation
Monitoring personnel will be evaluated for their knowledge and ability to carry out the required measurements. Performance evaluations will be implemented before project personnel are allowed to participate and repeated randomly throughout the project, at least once per reporting period. The Principle Investigator/QA Technical Manager will view the data monthly, upon receipt. If questions arise, the PI will work with the monitor to resolve the issue.

Performance Audits
Performance audits will be conducted annually to document the taking of measurements and the treatment of data from time of collection to final reporting of results at least once per reporting period. The primary goal of the audit will be to detect deviations from the standard operating procedures and to make corrective adjustments. The Principal Investigator will be responsible for implementing corrective procedures and monitoring the progress of the monitoring personnel.

Peer Review
Data quality will be evaluated by peer review through technical information exchange and consultation with other research parties involved with similar projects. Publication of project results in peer reviewed scientific journal is desired.

Reports to Management (C2)

The following project reports will be prepared and submitted to St. Tammany Parish for review.

Semi-annual Progress Reports
Semi-Annual progress reports will be prepared by Andrea Bourgeois-Calvin and will consist of summary statistics of the data and an evaluation of the status of the project. Will present all data up to current, report QA/QC findings, and address any problems that may affect the quality of the data with the corrective actions performed.

Final Report
Upon completion of the project, LPBF will submit a final project report detailing the methodology, results, and a discussion of the results of the project. It is anticipated that results and lessons learned from the project will be used to move forward in these watersheds and will transfer to work in other watersheds in the state and region.

Data Review, Verification, and Validation (D1)

A comprehensive review and verification of quality assurance items will be conducted after data collection is complete including: assessment of data entry, transcription, and calculation errors; use of acceptable sampling methods; verification that holding times for those parameters analyzed by a lab were met; meters were properly calibrated for each use; use of correct containers and preservatives; verification that field blanks and replicates were collected as planned and that they meet aforementioned QC acceptance criteria; verification that the number of samples planned for collection were collected as planned; verification that sites listed for sampling were actually sampled, as well as verification that completeness goals were met for each parameter. Any departures from these types of project planning criteria listed in the QAPP will be noted in project reports.

Verification and Validation Methods (D2)

Section A7 discusses the responsibilities of each organization in this study and Section B10 discusses the chain of custody for all accumulated data. The water monitoring personnel are responsible for verifying the completeness and correctness of the data through the custody and transferal process. The Principal Investigator performs the quality assurance and validation analysis to assure that the data complies with QA/QC criteria and that all instruments comply with operational standards.

The following data verification methods will be employed:
- 10% (or more) of field data sheets will be randomly compared with the database to verify correct data transcription.
- Sample delivery sheets will be checked to verify holding times and preservation requirements for microbiological samples.
- Calibration logs will be consulted to verify that meters were properly calibrated.
- Replicates will be verified against precision targets listed in Table 2.
- Blanks will be verified against assessment criteria for field blanks described in Section B5.
- Number of samples collected will be compared to the total number originally planned for each parameter.
- Completeness (defined in Section A7) will be assessed using the following equation: Completeness = (Total valid samples / Total samples collected) (100)
- Field data sheets will be reviewed to verify sampling locations were sampled as planned.

Experimental controls that are not within limits and/or when duplicate samples vary significantly the data will be rejected. Data acceptance will be the responsibility of the Principal Investigator.

Reconciliation with Data Quality Objectives (D3)

LPBF will reconcile the data with the quality assurance process outlined in the LPBF QMP. LPBF will verify that pertinent data results are acceptable by intercomparison checks, performance evaluations, and evaluations as described previously in Section C1. Data that does not meet the data quality requirements will be rejected after review by the Principal Investigator/ QA Technical Manager.

Literature Cited

American Public Health Association. 2012. *Standard Methods for the Examination of Water and Wastewater, 22nd Ed.* Washington D.C.

Environmental Protection Agency. *Guidance for Data Quality Assessment*. EPA QA/G-9. July 2000.

Louisiana Department Of Environmental Quality. 1994. *Environmental Regulatory Code Part IX: Water Quality Regulations.* Third Edition

CHAIN OF CUSTODY RECORD

SLU Microbiology Testing Laboratory
Dr. Gary Childers, gchilders@selu.edu, Department of Biology
SLU 10736, Hammond, LA 70402
PH (985)549-3502

Relinquished by (Signature)	Date/Time	Received by (Signature)

Client		Phone	
Attention		Fax	
Address		Sampler	

Sample Description	Date	Time	Sample Matrix	Comp	Grab	# of Cont.	Preservative	Parameters for Analysis								SLUMTL ID
								FC	E. coli	BOD	TSS	pH	Flow	5WQ		(for lab use only)

		Comments/Remarks
Samples on Ice		
pH probe I ID #		

Holding Time		Sample (pH/temp)		Preservation		Intact
[illegible]	Logged	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N

chain_of_custody_2010_blank

Version: 1
Data Sheet
Date: 11/22/13
Page: Append 1

Water Quality Monitoring- Data Form

Monitors: ______________________

Date: ____________ Time: ____________

Recent Weather Conditions: ______________________

____

	Water Temp	Dissolved Oxygen	Specific Conductance	pH	Salinity
Site: HS-34					
Time:					
Turbidity:					
Mean					
Site: HS-35					
Time:					
Turbidity:					
Mean					
Site: HS-45a					
Time:					
Turbidity:					
Mean					
Site: HS-37					
Time:					
Turbidity:					
Mean					
Site: HS-38					
Time:					
Turbidity:					
Mean					

	Water tmp	DO	Spec Conduct	pH	Salinity
Site: HS-40					
Time:					
Turbidity:					
Mean					
Site: HS-42					
Time:					
Turbidity:					
Mean					
Site: HS-41					
Time:					
Turbidity:					
Mean					
Site: HS-43					
Time:					
Turbidity:					
Mean					
Site: HS-47					
Time:					
Turbidity:					
Mean					
Site: HS-39					
Time:					
Turbidity:					
Mean					
Site: HS-36					
Time:					
Turbidity:					
Mean					

Version: 1
Data Sheet
Date: 11/22/13
Page: Append 2

St. Tammany Parish Government

Legal Department
P.O.Box 628
Covington, LA 70434
Phone:(985) 898·3427
Fox: (985) 867·5124

Pat Brister
Parish President

Kelly M. Rabalais, Executive Counsel
email: kmrabalals@stpgov.ol'g

INTEROFFICE ME.YIORANDUM

DATE: July 1S,2013

TO: **Ms.. Beverly Gariepy, CbiefFinmcial Ofrt«r**
M!. Le.slie Long. Oiroctor of the Departmtl'lt ofFinanoe
Mr.Charle$ E. Will tams. Oit«tor 0l'Engineering
Ms.. Darnell Ellingsworth, Ri.sk Manager
Ms.. Theresa FO«l, Council Clerk

FROM: **Mr. Joseph Alphonse, As.sociate Counsel**

RE: Coopenuive Endeavor Agreement by and between St.Tammany Parish **Government and The Lake Pontchartrain Basin Foundation**

Enclosed please find ooc (I) executed copy of the Cooperetive Endeavor Agreement by **and be"'.oeen St.Tammany Parish Government and The lake Pontcharuain Ba$in Foundation** regarding the Water Quality Study Program.

Please do not hesitate to oontac:t me sbou1d you have any questions or if you need anything further.

Thanks so much,

Joseph Alphonse

COOPERATiv£ E:WEAVOR AGREEMEl\'T BY AND BETWEEN ST.TM '<Y PARISH GOVERl\M£1\'T AND THE LAKE PW,'TCHARTRAIN BASIN FOUNIIATIOJ';

(Water Ou3lirv Survt,v Program)

This Cooperative Efldeavor Agreement \Agreement'') is made and entered into on the dates set forth herein below, pursuant to the 1974 Louisiana Constitution Article VD Section 14(C) **wherein govemmeotal entities are empo·wered 10 CQter into Cooperative Endeavor A.grcemcnby** and among the follo\vias parties:

ST. TM1MANY PARISH GOVERNME:-IT. a political subdivision of the Stote of Louisiana and the governing authority of St Tammany Parish, whose mailing address is P.O. Box 628, Covington, Louisiana 70434, in appearing by and through Patricia P. Brister, Parish President duly authorized by law (bereinafter '"fezw!10 as "Parish"); and

THE LAKE PONTCHARTRAIN BASIN FOUNDATION (hereinafter refezw! 10 as "Foundation"), a Louisiana non-profit corporation whose mailing address is Post Office Box 6965 **MctairiCt Louisiana 70009, represented by and lltrough Job.n Lopez, PhD, its Executive Director:** duly authorized,

WHEREAS, the l..al:.e Pontcb.artrain Basin Restoration Act (the "Aef') created a federal· local pannership10 restoand support lake Ponteharuain and it$ >unowxling areas; and

WHEREAS, additional legislatioo evol"ing from the Act provided funding 10 continue to **assist Joc:al governments with water in.ftastructurc problems;and**

WHEREAS, Parish bas prepared the St Tammany Parish Water Quality Aetion Plan ("WQ PJan"). **to. among other Wings, assure v.-ater quality improvementS in aU of St. Tammany Parish**'s worersbeds; and

WH.EREAS, one activity that \viii support the WQ Plan is a water quality sampling program, in\'olving weekly and biweekly sampling at designated locations; and

WHEREAS, Foundation has the expertise and ability 10 collect samples for water qualitv swveys for Parish; and

\VHEREAS. Parish desire$ to eoter into this Agreemeot for foWldation to sample, test and obtaln laboratory test results for collection of water quality data.

NO\V, THEREFORE, in consideration of the mutual benefits and covenants eontai.oed in this Agreement, the Parties agxee and bind their .,specti,,.offices as follows:

1. PUBLIC PURPOSE. The panies to this Agreement acknowledge and agree that the public purpose for this Agreement is 10 pcrfoan water quality surveys of the lake Pontcb.artrain Basin worersbed, as required by Totol Moximum Daily Load ("TMOL") requirements. Funber, the data obtained by the sampling contemplated by this Agreement \\ill benefit the health, safety and welfare of the citizens of St Tammany Parish by way of morutoriog and improving water quality throughout St T3DlDl31ty Parish's watersheds.

2. OllLIGATIOJ';S OF THE FOUNDATION

2.1 — Foundation sball pcrfonn the following:

2.1.1 ln. slreater quality monitoring of rivers C'Task 1..). foundation shaH perfonn monthly *in situ* monitoring of up to thirty four (34) hotSpOts along rivers in St Tammany Parish. in tbe areas identified on Attachment ..1.. attached hereto. wbich hotspOts can be revised by mutual. wrinen agreement of Parish and **Foundation. Water quality parameters of Wllter temperadissolved oxygen, specific oonduetance, salinity, turbidity, pH and flow will be analyzed *in situ*** using EPA-approved field meters and methodologies. The purpose of the **monitoring is to obtain additional water quality information oo the rivers in St** Tammany Parish to present to the Louisiana Oep:ll11Mnt of BnviroMJental Quality for its use in evaluation of future total ma.ximwn daily load (""TMOL') requirements for impaired water bodjes.

2.1.1.1 While no specific weather conditions will be targeted for this monitoring, the monitoring sbaU not take place duringad"'erse v.-cather conditions.

2.1.1.2 All samples sbalJ be taken approximately one (I') to two (2') feet below the **\.\'3ter surface. Three (3) samples shall be taken from eacb site, wilh the parameters averaged to determine the daily value.**

2.1.2 Dry weather monitoring of retention oonds C"Tas\.; 2") Foundation shall perform dry weather monitoring of three (3) storm water retention ponds and the **receiving streams** (coUe<;th·elyf **the "Sys[ems., or individuaUy, a** •-syStem· identified as (a) Casa Bella subdhision pond; (b) Lillie Creek Commercial pond; and (<) Oel Sol subdivision pond, which ponds can be revised by mutual, wrinen agreemenL of Parish and Foundation. Foundation \vill sample four (4) points in each System, namely (a) influent points of each pond; (b) effluent points of each pond;(c) JOceiving water body upstream of pond effluent entry and (d) receiving **water body downstream of pond effluent entry.**

2.1.2.1 The sampling shall be conducted four (4) times per year on ea<:h System. Two (2) samplings shall occur during summer conditions, and two (2) **samplings shall oocur during '-'inter conditions.**

2.1.2.2 Sotnpling shall occur on dry weather days, when no rainfall has occurred for at least st\'toty two (72) hours prior. Tbe water quality parametm of water temperanu-e, dissolved oxygen, specific conductonce, salinity, turbidity, pH and staff gauge readings \viii be an.alyzed *in situ* using EPA-approved field meters and methodologies. Foundation shall concurrently colle<:t one (1) grai> sample at each of the four (4) collc:ction points of each System for laboratory analysis of CBOOS, N02-N03N, NH3· 4-N, TOC, TKN, TP, TNandTSS.

2.1.3 Wet weathq moniloripg of retention ponds tTasls 3"). Foundation shall perfonn wet weather monitoring four (4) stonn water retention ponds identified as (a) Casa Belli! subdivision pond; (b) l..abarre Street pond; (c) Lillie Creek Commercial pond; and (d) Oel Sol subdivision pond, whicb ponds can be revised **by mutual, •written agreement of Parish and Foundation. foundation sb.aU install,** deploy and operete two (2) ISCO multi samplen to coUect ten (10) grab samples **at on(1) hour intervals during rain event$ at the iofluent and effiuen[point$ of** the selc:cted System. Wben deploying and coUectiog the ISCO multi-samplers, Foundation shall also test the water quality JlOlO!Deten of wruer temperature. dissolved oxyaeo. specific conductance, salinity, turbidity, pH and staff gauge readings, analyzed *in!ltu* using EPA-approved field meu:.-.and methodologies.

2.13.I The samples coUected by the ISCO multi samplert shall be laboratory analyzed for CBOOS, N02 N03N, 3·NH4-N, TOC, TKN, TP, TN and TSS.

2.1.3.2 The ISCO multi-sampler testing sbalJ occur four (4) times per year at ea<h of the four (4) referenced retention ponds.

2.1.4 Qualitv Assurance Projtet Plan Ciask *4j*. Foundation shall assist Parish to prepare, update and maintoin the Quality Assuraocc Project PW! associated \vith the mooitoriog (for review by LDEQ) and will operete, mAintoin and preserve the databasesasS¢Ciated with this monitoring.

2.2 Laboratorv Samnlingffesring. AU samples ooltected for laboratory analysis by Foundation sbalJ be an.alyzed using a laboratory certified by the Louisiana Oepanment **of Environmental Quality's Louisiana Environmental Laboratory A«:rt:ditation** Program ("LBLAP"). Foundation •ball utilize EPA-approved methodologies to tranSport the samples to the LELAP lab.

2.3J=.

2.3.1 Throughout the Tenn (as defined below), as woU as for any subsequent **extensions, foundation agrees and obligates itself to maintain insurance covera e in sufficieotlimits and Jevels necessary to:protect it, its agentS, di.rectOrs,. officers.**

employ..., \'Oiunt<ers, iiS subcontnOCIO<$, IS well as Parish, iiS elected and appointed officials. dim:tO<S, off".-., aaerus. S<r\-.-, attorno:ys. employ..., \'Ohmceers, >CCih<r ,.ilh !heir oaeucs. rq>res<nwives, assigns, iXJsums and inswm, and all — intet<Sted lhird p&nies, &om any and all claims fi>r bodll) injury, death 0< fl'OPC"Y cbmaa< IS well as &om claims und<r !he ""Orkus'eom...-.;oc I<1S in <OMCCiioo ,.;lh!heobliptiono of!he FOUDdali<ln made subJCCt of chis ApummL

2.3.2 The insunDoe 00\ - - - -sball be Tittm by insunDoe companies .ill> - , A.."\t. Be$& ! tina of oo less chan A ·Caupy V1l and shall be OJJlborizeclco do busincos iD !he SliU of Louisiana, and should include, boA may not be limiled co: Cornme.eial G<-.1 Liability, Comm<rciaJ Auto l.iabilil)'. and Workers' loyors Liability.Parish ... !he rig!n 10 iew and appnl\'eall insunDoe oo• es.

2.3.3 FOW>dauon shall ho"C Pvisb named as an addi1ional in.surod 011 !he liability insunDoe policies IJld !be policies shall be endorsed 10 provide a wah-er of subtoaation in avor of Parish. The inswances affecced by lbis Agnoement sba1J **be ¥ 'litten on a primary and non..contributory basis. All insurance policit':$ shall** provide that insunDoe shall not be canceled without thirty (30) days prior 00<ice **of cancellation a,iven to the Parish. in writing. Foundation shall present evidence** of said insW1nce coveraaes 10 lhe Parish on or before lhe com.meocement of ihis Aat<emenand !hereafter annually on or before each policy expiration.

2.3.4 Foundation shall require lhe L£LAJ> testin i facility to obtain and maintain **professional HabiJity in$UI'Mce undcrv.Tinen by an insttrance company with an** A.:.-1. Best ratina of no less lhan A·,Category VII and shall be aulhoriud to do business In lhe Stftte of LouisiiUUI. Foundation shoJI provide evideoce of said **inswancc covero,ac to the Parish on or before the commencement of this** Aat<emcnond !hereafter annuolly on or before each policy expiration.

2.4. Foundation shill comply wilh all opplioable sovemmental laws, rules. **reauJations, licensina and requirtments.**

2.5 Rejmbw'Kmrot Foundation shall provide documentation for all rcquesu for Parish's funds due pursuant 10 ihis .,..,...•., in lhe form requUed by Parish's Oeparanem of finance. All requc:siS must be submitted timely, supported by odequate documenwion (i.e.: in•'Oiees, and/or ocher supportina doeuments required to suppon the request and/or on oda>owlcdiem<nt tlw lhe work bas been ccmpleted IJld appn"'Cd) IJld "PPX""Cd by Pvisb before payment ..;U be made.

3. OBLIGADOS Of ST. L\J\1)11\!'iY PARISR

.I.I RcimbuagnspL Pvisb shall fund ihis in !he maximwn omount of 1wo hundred sixty Jl,-. thousaod foor hur>dr<d SC\'Cnl)' ooe and 26.'100 dollats (26,471.26). P"Yable 0\-et the Term. Foundation's "-or!<. supplies, malCrials IJld cost•'llable for r<imbwscmeru are """"""oa Auaduneot "2" attached betcco. *Any* funds remaining ., expimi<In of !be Term shall be retained llldloc rallocated by Pvisb IJld shall not be disbursed to FOU!lda!ion.

4. TfR\IlNADO'I A!(J)!IF'1HXCADIRE

4.1 The ICTm of ihis AifC"tDCnt shall begin Oft JUIIC 1, 2013 and <Dd oo Decanbet 31, 2015 (!he "Term"). No Term """""" or exteDSion sball be pro•ided "ithout !he expras"Ti""" consent of !be panies, in each party'ssole discretion.

4.2 Ally al <ntion. ,..nation. modification. orwahuofprovisionsofihisAgr<emcm sball be valid only "'1len it h8s been reduced to "Tiring and opproved of and e:xeaned by all **patties prior to the a1te:ration. \"ariation.. modifiCIJiion, or \\'&iver of any provision of this** Aat«mcnL

4.3 Time is of lhe essence and !he pcrformaoce of !he terms and conditions hereof shall be held in llrict accordance "ith lhe times and dales specified herein.

4.4 Should aoy Pany seek 10 terminate lbis Agreement for aoy reason prior to lhe **expiration of the Term, the Pany seeking to terminate shall provide wrincn notice of its intent to terminate thiny (30) days prior ro the date of termination.**

4.S The continuation of this Aafeement is contingent upon the appropriation of funds by Parish to fulfill !he requiremcniS of lhe AgteemenL If the Parish fails to appropriate **sufficient monies to provide for the continuation of this Agreement. or if such.** appropriation is reduced by the veto of lhe Parish Presidcn1 by any means provided in lhe approprl11ions ordinanc:<: 10 J>re"<nt lhe 1otal appropriation for the year from **exceedin& revenues for that year, or for any olhe:r lawful pu:posc, aod the effect or such reduction is 10 provide insufficient monies for the eonti.nu.atioo. of the** Agreement. lhe Ai Ctm<nt slWI ,.rminate on lhe dale of !be beginning of !be fust fiSCal year for which funds ., . oot oppropriated.

S. CONTRACTUAL V6LIDITY AND MlSCELLEAl'iOUS PROVISIO S

Sl In lhe o\CiIl th3t *ony* oce or more provisions of ihis Agreement is for any reason beld 10 be illcpl or in,-aJid, lhe furies sba11 anemp< iD good Wth to amend !be defective pro,isioft iD order 10 carry 0<111he original inlmt of this A:JCem<nt.

5.2 If any term or clause l\crei_n is deemed unenforceable or invalid for any reason whiiSOCver, lhat portion slWI be severoble ond lhe remainder of ihis Agreement sba1J remain in full force and effeeL

5.3 Any suit filed by a pany to this Agreement 10 resolve a dispute or controversy "'8Mdfna lhe malton which""" the subject of this Agreement shoJI be filed in lhe 22" **Judicial District Coun. for the Parish of St. Tammany which sball have exclusive venue and juri$diction for any such action. further, any dispute arising from this Agreement** shill be iOverood by lhe I•"oflhe State of Louisiana.

5.4 Any failure to toke ony action J>'lfSUOllt to this A&reemcnt or to exercise any rig!n **lf'Mted herein does not st:rve as a "'a.i\'t:r to any other obligation conlained herein.**

S.S The P:utiO$ ackDowleclie IJld Bat<C tlw !be obligations and covenants made herein girise 10 oonD'ICtual riibiS of eath pony and !be rit)u 10 daniJld opecific pcrfonnancc IJld ony claim 10 d"""""es suiTehcreund<r.

5.6 No Pbe shall assi1111 any int.,...iD ihis Aat«m<<t (whetber by ..si8MJ<lll or oovanon). This A_.,..t may be tmended only by mutual wrinen consent of !he Patties.

5.7 &ch r<pR3elIWJ\'C herein wam.DIS !hat they b:we the requisi,. IUibority and pcnnis$lonco enter, siJD and bind !heir olf-

SJI Eacb !'art) eerur..tlw it .;u adbere 10 IJld follow aay and all ordinaDoes, laws IJld lieensu)a reqwmneoiS opplicablo 10 each Pony'soblíprioos"'Silled bereiA.

5.9 F ..,.sco indemnifY IJld bold lwmlesslhe PvisblJld iiS offioers, dircaon, crnplo)..., oaeucs. oontniClO<s. "COdon IJld all olbets. of IJld from and agoiDSI any and all liability iDcludiJ>a. boA not limited to, claims, demands, losses, suics, damoges, Judima>CS. eosu IJld expmses whether, indire<l 0< CODSOCJU<tltial and inclucli.qg, boA not limited to, all fees, expmses IJld clw-ges of anorneys and olh<r professioaals, IS **as cowt costs and t:XpC'nst:St for any acrioos or inac:tions aris:ing out o(. in** oonneetion "ilh. or tlw moy arise as a result of Follldatioc's obligatiocs und<r ihis Ap«m<Dl, "hetber ouch claims are made by way of indcmnil)', contribution. subrocation or olhetwise.

6. £NTIR£ ACREptENI

This Ai Ctment constitutes lhe entire understanding and rctleciS the entiretY of lhe undcnakinas between lhe Parties ,.;lh respect to lhe subjecc matter hereof. supeneding all ncsotiations, prior diSCUSSiOns and preliminary lat<emeniS. There is no representation of **wamnty of any IUnd mAde in concion with the uan.sactions contemplated bereby that is not exprc:$$ly contained in this Aarcemeru.**

7. NO PERSO:-IAJ. LIABILITY OF NDMJ)UAJ. R'£PR£S£NTATIVE

No covenMt or agreement contained in this Agreement sha11 be detmod to be the covenll\t or oartement of any official, trUStee, officer, agent or employee of any c.orponuc party of his individual capacil)', aod neilher of the officers of any party nor any official **cxecutina this I\a;reement shall be personally liable with respect *to* Uli.s Agreement or be** subject to *ony* persooal liability or accountability under this Agreement by reason of lhe **CXe<:UdOn and <Itlivery orthlsAgreemenL**

8.

Ally notice required or permitted 10 be given under or in oonnection with ihis Aat<ement shall bein "'Titioa IJld sball be either lund-<ictivered or mailed, posta&e pre-poicl b) First Clasa Mo.il, realstered or certified, mum receipt requested,<>< delivered by privU, ..,.,.,.,.,.... corrier, expras mail. ouch as Fedenl Express, or sent by, telecopier or olh<r similar form of electronic tranSmission ooofitmed by \\lin<n eonfumation moiled (poslaae pre-paid b) First Class Mail, resistcred 0< certified. mum roeeipc requesled 0< pr;,-...,, ..,.,._.,illc:amer, mail —b as Fedenl Express)11subslantially !he some time as such liPid tra:wnission. Adl sball be tr.mmlitted to !he 8ddrw - -number set forth be 0< such *olhet* oddr'Csses 0< numbers to be named bere&fter c!esigDIICd b) a pony in "Tinm OO<iceco the *otbct* pony oompiiant ..ith chis sectioo.

lfO>Ihefouodatioc:

Lalte Pontcbamoio Basin Fouodatioc
AttD; Andrea llot.&eois-Ca!vin. PbD
Wllet Qoillity Program 1Maor
P. O. Box *696S*
Metairie, Louisiano 70009

If to Parisb:

President Patricia P. Bri-
SL Tammany Parish Oo•emmtnt
P. O. Box628
CovinaiOn. LA 70433

(Sisnature paae follows.)

L\VITNJ:SS WHER£01', the Plllks have caused this Agroem<ntto be duly executed in multiple originals by the be Wlder slaDed ofriCcn, <aeh in theof the undetsigDCd two (2) C'Cclljldent "iUieSSeS in Sl Tammany Parish, S—of Louisiana. as of the dates set f0<1h. below after clili&etll rudina of the "bole.in"""" oounterpons.

THUS DOl\'£ Al\1> SICI\'ED effeethe as of .:J"vl)' 2013 in the of /.} the lllllersipd..: _____)

WITNESSES:

Rebecca Perry

ST. TAMMANY PARISH GOVERNMENT

BY:

Patricia P. Brister
Parish President

THUS DONE Al\'D SICI"ED effeeti\'e u of f·- llj' • 2013 in the of the unde aned "'itnesses.

WITNESSES:

THE LAKE PONTCHARTRAIN BASIN **FOUNDATION**

BY:

John Lopez, PhD
LPBF Executive Director

ATTACHMENT"!"
TASK I – *INSTTU*SAMPUNGfTESTI>1G l.OCATIONS

"Hot Spots" in STP Waterbodies - Identified During LDEQ Intensive Surveys

Study Area	Hot Spot Number [1]	Site Description	Subsegment
Tchefuncte	1	Ponchitolawa Creek @ Service Rd SE corner of I-12 & Causeway	040802
Tchefuncte	2	Tchefuncte River @ confluence w/Bogue Falaya River N of and nr Pinnacle Pkwy	040801
Tchefuncte	3	Ponchitolawa Creek @ Service Rd SE corner of I-12 & Causeway/3rd/Judy Ave bridge	040802
Tchefuncte	4	Ponchitolawa Creek @ Jeffery St	040802
Tchefuncte	5	STP lateral 24-FW1-50 @ Marion Rd	040802
Tchefuncte	6	Ponchitolowa Creek @ Hwy 59	040802
Tchefuncte	7	Ponchitolowa Creek @ Tchefuncte River	040802
Tchefuncte	8	Bayou Tete L'Ours @ Tchefuncte River by Beau Cheme sewer plant	040802
Tchefuncte	9	Bayou DeZaire @ Tchefuncte River - intersection of Main St & St Paul	040802
Tchefuncte	10	Tchefuncte River @ 3 Rivers Rd boat launch	040802
Bayou Liberty	33	Bayou Liberty @ Royal 18 Canal confluence	040905
Bayou Vincent	34	Eagle Lake MHP	040907
Bayou Vincent	35	Browns Village Rd @ Bayou Vincent	040907
Bayou Liberty	36	Target Canal & Academy @ Bayou Liberty	040905
Bayou Vincent	37	Bayou Vincent Donya @ Jackson	040907
Bayou Bonfouca	38	Bayou Bonfouca @ W. Hall	040907
Bayou Liberty	39	Bayou Liberty @ Tammany Trace	040905
Bayou Liberty	40	Bayou Liberty N. of Jefferson Trace	040905
Bayou Paquet	41	Bayou Paquet @ or nr Pinnacle Pt in the Woods S/D	040906
Bayou Liberty	42	Bayou Liberty @ Journey Rd	040905
Bayou Paquet	43	Bayou Paquet @ Mayer Rd S. of Bayou Paquet Rd	040906
Bayou Liberty	44	Bayou Liberty @ Journey Rd	040905
Bayou Vincent	45	Bayou Vincent N. of Ben Thomas Rd on railroad	040907
Bayou Vincent	46	Bayou Vincent W. of Ben Thomas Rd on railroad	040907
Bayou Paquet	47	Bayou Paquet @ confluence of lateral coming from Ozone Woods & Circle "J"	040906
Bayou Liberty	48	Airport Rd @ canal coming from Oakmont S/D Pond	040905
Bayou Lacombe	49	Bayou Lacombe @ I-12	040901
Bayou Lacombe	50	Big Branch Bayou @ Berry Todd Rd E. of Shady Pine Rd	040902
Bayou Lacombe	51	Bayou Lacombe nr Isaac Rd across Bayou from Fish Hatchery	040901
Bayou Lacombe	52	Bayou Lacombe @ 190 bridge	040902
Bayou Lacombe	53	Cypress Bayou @ Grand Ave. bridge	040902
Bayou Lacombe	54	Cypress Bayou @ Diane St dead end W. of Transmitter Rd	040902
COUNT	32		

[1] "Hot spots" are any water quality monitoring site that failed the numerical standard for dissolved oxygen (DO) for that subsegment. "Hot spots" were identified during the LDEQ Intensive Surveys that preceded the TMDL modeling. Thus, "hot spots" occur only at LDEQ sampling sites.

ATTACHMENT"2"
TASK BUDGET

(See eneehed pege.)

BUDGET FOR LPBF WATER QUALITY MONITORING- ST. TAMMANY BMP & HOTSPOT PROJECT

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TOTAL WET-WEATHER

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$1,500.00
$24,960.00
$12,000.00
$38,460.00

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LPBF Administration and Overhead (10% of total project expenses)

Appendix E

Annual Evaluation Checklist

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MS4 Goals

Annual Comprehensive Site Evaluation Checklist

St. Tammany Parish

Evaluation Issue	Yes	No
1. Have inspections been completed as required?	X	
2. If required, has stormwater sampling been completed as required?	N/A	
3. Were the BMPs implemented for the year effective?	X	
4. Do new stormwater sources or pollutant exposures indicate a need for additional BMPs?	X	
5. Has this Plan been updated to include recommended changes resulting from previous inspections or annual evaluation?	X	
6. If sampling required, were pollutants in stormwater sampling data present above LPDES permit limitations?	N/A	
7. Are additional BMPs warranted? If yes, describe below:		X
BMPS OR BMP Improvements Needed		
TMDLs are completed for St Tammany and there are likely to be several recommendations for STP SW program changes as a result of the TMDLs.		
A major revision of the SWMP is planned in 2013 to accommodate TMDLs. There will also likely be additional		
Additional revisions to the STP Stormwater Ordinance may also be necessary to accommodate the TMDLs.		
Notes: Completed evaluation form should be retained in the STP Department of Engineering.		

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Public Outreach and Education and Outreach on Stormwater Impacts					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Certification Training - Engineering		Host certification training for stormwater and erosion control inspectors	Provide qualification and certification for inspectors, engineering/consulting firms, and St Tammany Parish inspection staff	As Needed	2013 - 2017
TMDL Meetings- Engineering		Hold TMDL meetings for STP dischargers	To inform local dischargers regarding impacts to their establishments due to TMDL	As needed	2013 - 2017
Educational Material- Engineering, Environmental Services		Produce outreach materials such as pamphlets, booklets, and fact sheets.	Inform the public about storm water pollution what they can do to prevent it	Annually	2013 - 2017
Homeowner Education- Environmental Services		Present information to various Homeowner Associations	Educate homeowners in the proper operation and maintenance of on-site treatment plants, and proper waste disposal.	Continuous	2013 - 2017
Media - Government Access		Deliver various educational, promotional, or motivational messages through the parish government access channel, and local print media.	Educate the public regarding water quality issues, erosion controls, and stormwater control measures	Continuous	2013 - 2017
Media - Government Access		Deliver educational, promotional, or motivational messages through the governmental access channel.	Inform the public aware of the adverse impacts associated with household hazardous waste and improper litter disposal.	Continuous	2013 - 2017
Media - Government Access Department	http://stpgov.org	Maintain the parish website.	Provide water quality notices, contact information, educational materials, etc.	Continuous	2013 - 2017
Media- Environmental Services, Government Access	http://stpgov.org	Deliver educational material on the website (http://stpgov.org) and Government Access Channel	Educate the general public on the importance of on-site residential sewage systems and proper waste disposal	Continuous	2013 - 2017
Meetings for Builders- Engineering		Host educational workshops and demonstration projects	Provide education on Stormwater Permit requirements on construction sites.	Semi-annual	2013 - 2017
Public Meetings- Engineering		Continue to attend public forums	Provide Stormwater and Water Quality education to the public.	Continuous	2013 - 2017
Stormwater Presentations- Engineering		Continue to present SW training for MS4s, builders, engineers, and developers	Provide education and training on stormwater BMPs, SWPPPs, stormwater inspections, etc.	Semi-annual	2013 - 2017

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Public Participation and Involvement					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Adopt-A-Road Program-Environmental Services Department	http://stpgov.org/departments/esc/litter/litter-home.htm	The St. Tammany Adopt-A-Road Program is a volunteer litter reduction and prevention campaign	Utilize volunteers from the general public to remove litter from parish roadways and right of ways and improve ambient water quality.	Annually	2013 - 2017
Hold Meetings regarding revisions on the Draft SW Ordinance- Engineering		Involve stakeholders in Draft SW Ordinance revisions	To receiveinput from builders, developers, non-profits, & regulatory agencies regarding proposed changes to the STP Draft SW Ordinance.	As needed. At least several times per yea.r	2013 - 2017
Grant Application-Department of Engineeering		Apply for Grants to improve stormwater, water quality, watershed managenment, floodplain management, etc	Utilize grant funding for projects to utilize volunteers to improve stormwater, water quality, watershed managenment, floodplain management, etc	One-Time Preparation	2013 - 2017
Litter Abatement Program-Environmental Services Department	http://stpgov.org/departments/esc/litter/litter-home.htm	Host annual Household Hazardous Waste Day	Provide the public with the proper disposal of household hazardous and non-hazardous wastes.	Annually or Semi-annual	2013 - 2017
Litter Abatement Program-Environmental Services Department	http://stpgov.org/departments/esc/litter/litter-home.htm	Continue to clean litter from Parish roadways during each business day with the Litter Abatement Program.	Remove litter from parish roadways and right of ways and improve ambient water quality.	Continuous	2013 - 2017
St Tammany Parish Water Quality Task Force Meeting-Department of Engineering		Host bi-monthly Water Quality Task Force meetings	Provide for interagency cooperation. Attendees include LDEQ, USEPA, local municipalities, LSU Agricultural Center, LDHH, St Tammany Parish Government, NPO's, etc.	Bi-Monthly	2013 - 2017
Louisiana Stormwater Coalition		Participate with the USEPA, LDEQ, LSU Agricultural Center, and other state MS4s to form a Louisiana Stormwater Coalition.	Assist Louisiana MS4s to maintain local compliance with the Clean Waters Act and prepare a peer review MS4 evalution checklist	Quarterly	2013 - 2017
World Water Monitoring Day-Department of Engineering		Participate in the World Water Monitoring Day	Foster public participation and involvement by utilizing volunteers to perform water qulaity monitoring	As Staffing Allows	2013 - 2017

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Illicit Discharge Detection & Elimination					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Educational Pamphlets and Booklets- Environmental Services		Produce outreach materials that inform the public about on-site sewage maintenance.	Inform the public aware of the proper maintenance and upkeep of individual sewerage systems.	Annually	2013 - 2017
Enforcement- Environmental Services		Enforce ordinance that prohibits the discharge of potentially hazardous pollutants to storm drains.	Prevent pollutants from contaminating the storm sewer system	Continuous	2013 - 2017
Inspections- Environmental Services		Inspect water and wastewater systems (those with non-exclusive franchise agreements).	Protect storm sewers and ambient water from pollutant laden discharges from poorly maintained or non-operative individual sewerage systems	Continuous	2013 - 2017
Inspections- Environmental Services		Inspect individual sewerage systems before an electrical connection is approved.	Provide permit inspections, require basic maintenance and the replacement of an unpermitted and/or non-operating sewerage system.	Continuous	2013 - 2017
Storm sewer system map- Information Services		Update the St Tammany Parish ArcGIS database/map	Document the location of St Tammany Parish storm drain laterals	Annually	2013 - 2017
Complaint response- Environmental Services, Engineering, Code Enforcement		Investigate citizen complaints regarding illicit discharges	Detect and eliminate illicit discharges	Continuous	2013 - 2017

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Construction Site Stormwater Runoff Control					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Drainage/Stormwater Inspections- Engineering		Perform on-site drainage/stormwater inspections for construction sites	Determine compliance status of construction sites with drainage, fill, and stormwater regulations	Continuous	2013 - 2017
Inspection Documents-Engineering		Review drainage/stormwater inspection documents for relevant revisions.	Update the iinspection checklist for use during on-sitedrainage/stormwater inspections.	Annually	2013 - 2017
Inspections-Engineering		The Watershed and Drainage staff performed at least one inspection on 3,917 residential and commercial new construction sites.	Determine compliance with drainage, fill, and stormwater regulations.	Continuous	2013 - 2017
New Development Review-Engineering		New subdivision development and commercial projects are reviewed for appropriate stormwater control measures by the Department of Engineering personnel. Required stormwater controls may include, but are not limited to, detention/retention ponds, constructed wetlands, outfall filtration, vegetative buffers, slope stabilization, metered flow, etc.	Determine compliance with drainage, fill, and stormwater regulations.	Continuous	2013 - 2017
Ordinance Review-Engineering, Legal		Review State, Federal, and Local ordinances relevant to stormwater, water quality, and MS4 Permits.	Determine local compliance with regulations relative to sediment control, placement of fill material in critical drainage areas, and development of best management practices (BMP) for residential and commercial constructionin St Tammany Parish.	Annually	2013 - 2017
Stormwater Ordinance Review- Engineering		Review the stormwater ordinance for continued compliance with ever escalating regulatory requirements and revise as necessary.	Meet the escalating regulatory demands related to stormwater and the MS4 Permit	Ongoing Project	2013 - 2017
STP Work Order Status Form- Engineering		Review Work Order Status form	Update the Work Order Status form utilized by the Engineering Department to track developmental progress and compliance with stormwater requirements.	Annually	2013 - 2017

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Post-Construction Stormwater Management in New Development and Redevelopment Areas					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Stormwater Workshops- Engineering		Conduct Stormwater Workshops for builders, developers, and engineerig/consulting firms regarding permanent BMP alternatives for post construction	Advise the target group of design alternatives to address stormwater run-off, such as: bio-retention, underground storage, pervious pavement, etc	As Needed	2013 - 2017
Inspection Documents- Engineering		Revise inspection document to include post-construction BMPs.	Utilize during on-site inspections in post construction situations in new developments and redevelopments.	Annually	2013 - 2017
Program Review- Engineering		Reviewed the St. Tammany Parish Local Coastal Program relative to Post-Construction regulations.	Develop best management practices (BMP) for residential and commercial post-construction control measures.	Annually	2013 - 2017
Ordinance Review- Engineering		Review Chapter 7, the Subdivision Ordinance-Section 40-037, Zoning ordinances, the Stormwater ordinance, and the Landscape Code, of the St. Tammany Parish Code of Ordinances relative to post-construction stormwater runoff controls.	Develop best management practices (BMP) for residential and commercial post-construction control measures.	Annually	2013 - 2017
Plan Review- Engineering		Developers and builders are required to submit, as part of their design summary package, a detailed plan outlining how their projects will meet the stormwater and water quality standards set-forth in the above-mentioned ordinances.	Review the submitted plans in order to ascertain if, upon inspection, the site is compliant.	Continuous	2013 - 2017
Revision to STP Work Order Status Form- Engineering		Amend the STP Work Order Status form, utilized by the department to track development progress, to include a requirement concerning permanent post-construction BMPs.	Utilize during on-site inspections in post construction situations in new developments and redevelopments.	Annually	2014
Stormwater Ordinance Revision- Engineering		The St Tammany Parish Government is currently revising parish ordinances related to stormwater management and the MS4 Permit	Improve, maintain, and enforce compliance with post-construction stormwater regulations.	One-Time Preparation	2014
Stormwater Retention Ponds with BMP		Continue installing retention ponds with BMPs to improve SW quality	Meet the escalating WQ demands related to stormwater and the MS4 Permit	As needed	2013 - 2017

ST TAMMANY PARISH MS4 SWMP - GOALS FOR 2013 - 2017

Pollution Prevention & Good Housekeeping for Municipal Operations					
BMP - Department	**File Name**	**Description of BMP**	**Intended Use of BMP**	**Frequency**	Year
Adopt-A-Road Program-Environmental Services	http://stpgov.org/departments/esc/litter/litter-home.htm	The St. Tammany Adopt-A-Road Program is a volunteer litter reduction and prevention campaign	Remove litter from Parish roadways and rights of way and improve the appearance of the Parish roadways and protect water quality.	Continous	2013 - 2017
Capital Improvements-Engineering		Capital Improvement Program	Maintain roadside vegetation; litter control; regular road and bridge maintenance.	Continuous	2013 - 2017
Litter Abatement Program-Environmental Services	http://stpgov.org/departments/esc/litter/litter-home.htm	Host annual Household Hazardous Waste Day inviting re residents to bring various wastes (paint cans, batteries, tires, etc.) to be properly disposed.	Assist the public in proper disposal of household hazardous and non-hazardous wastes to prevent pollutants fromcontaminating ground water, surface water, and stormwater.	Continuous	2013 - 2017
Litter Abatement Program-Environmental Services	http://stpgov.org/departments/esc/litter/litter-home.htm	Invite homeowner associations to “adopt” a road in their area.	Remove litter from roadway to prevent pollutants fromcontaminating ground water, surface water, and stormwater.	Continuous	2013 - 2017
Litter Abatement Program-Environmental Services	http://stpgov.org/departments/esc/litter/litter-home.htm	The St. Tammany Litter Abatement Program a community service litter reduction and prevention campaign	Remove litter from roadway to prevent pollutants fromcontaminating ground water, surface water, and stormwater.	Continuous	2013 - 2017
Preventative Maintenance-Public Works, Facilities Management		Periodic lubrication, adjustment, and replacement of worn parts in all equipment and vehicles	Prevent equipment or vehicle failure that could result in a spill of oils or hazardous materials.	Follow manufacturer's directions	2013 - 2017
Spill Prevention Plans-Facilities Management, Environmental Services, Public Works, Engineering		Develop plans describing spill prevention and control procedures for parish personnel.	Prevent hazardous materials from contaminating ground water, surface water, and stormwater run-off	One time preparation with annual reviews	2013 - 2017